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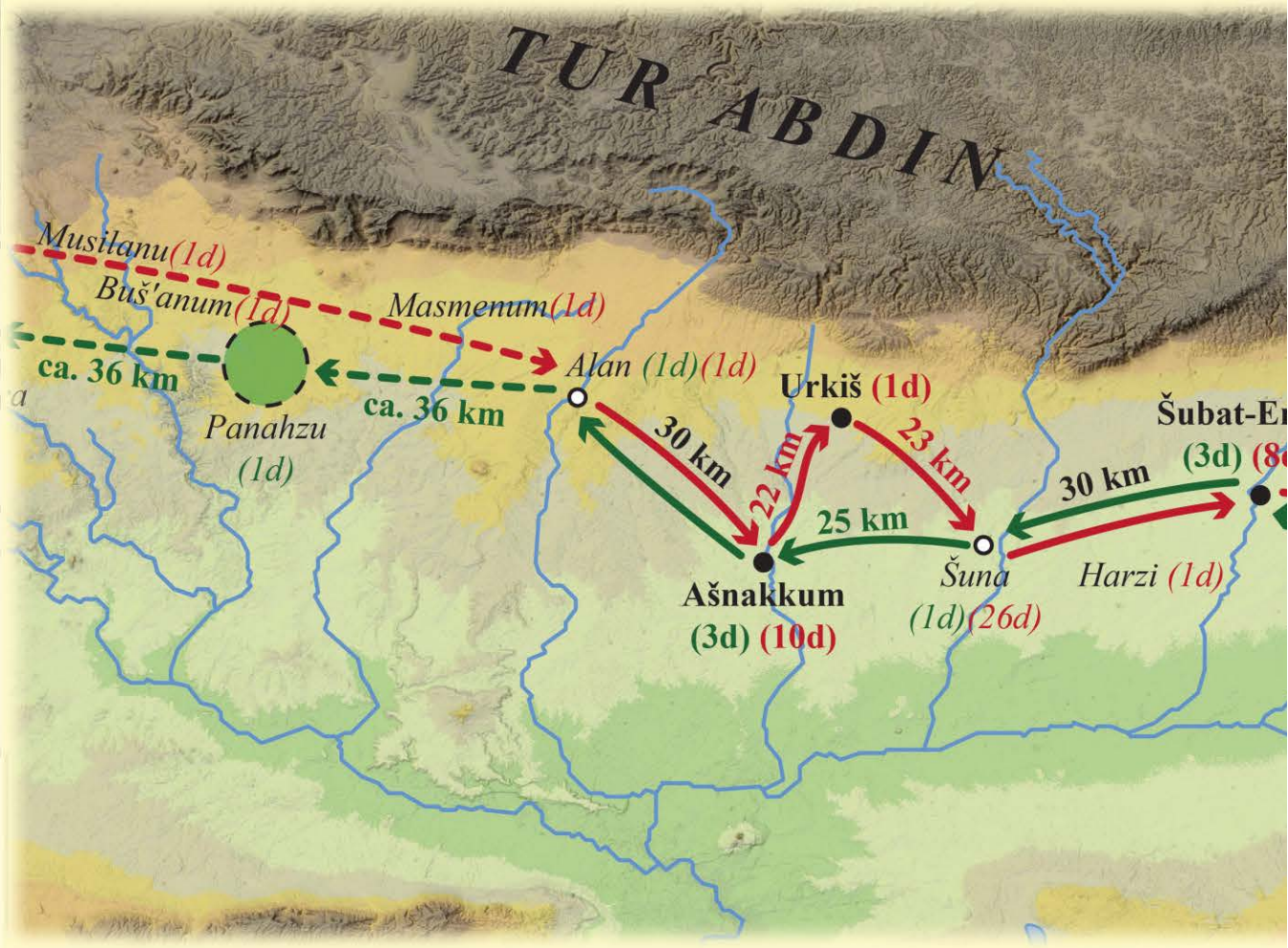
Band 30

Adelheid Otto / Nele Ziegler (eds.)

Entre les fleuves – III
On the Way in Upper Mesopotamia. Travels, Routes and Environment as a Basis for the Reconstruction of Historical Geography



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Herausgegeben von

Dominik Bonatz
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und
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Entre les fleuves – III

On the Way in Upper Mesopotamia. Travels, Routes and Environment as a Basis for the Reconstruction of Historical Geography

edited by
Adelheid Otto and Nele Ziegler

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Vorwort

Adelheid Otto* & Nele Ziegler**

Ohne Kenntnis der historischen Geographie kann es keine verlässliche Rekonstruktion der Geschichte geben. Weder politische Beziehungen – Kriege oder Bündnisse – noch ökonomische Vorgänge in Form von Handel mit bestimmten Regionen und Austausch von Ressourcen zwischen Königreichen sowie viele anderweitige Kontakte können wirklich verstanden werden, wenn ihre Verortung ungewiss ist. Seit Beginn des Interesses am Vorderen Orient hat die Kenntnis geographischer Gegebenheiten – seien es die Namen antiker Städte, Länder, Gebirge, Gewässer oder der Zugang zu Kartenmaterial und Satellitenbildern – enorm zugenommen. Heute scheint unvorstellbar, dass man noch in den 1960er Jahren nicht wusste, wo Ebla lag, und dass erst seit den 1990er Jahren Tuttul sicher verortet ist. Die Lokalisierung von Malgium in Tell Yassir ist eine allerjüngste Entdeckung irakischer Archäologen! Aber es gibt noch viel zu tun.

Itinerare und Routenbeschreibungen gehören zu den hervorragendsten Quellen für die Rekonstruktion der historischen Geographie. Sie geben den Forschenden die Möglichkeit, anhand der in Texten genannten Etappen das antike Wegenetz zunächst ungefähr zu ermitteln und sodann anhand der archäologisch belegten Siedlungen der jeweiligen Periode konkrete Identifikationen von Toponymen mit Tells vorzuschlagen. Dies kann am besten in interdisziplinärer Zusammenarbeit von Philologie und Archäologie geschehen.

Routenbeschreibungen sind besonders gut geeignet, weil naturräumliche Gegebenheiten den Reisenden stets die Wege vorgaben. Hindernisse wie Gebirge lassen sich nur auf wenigen Passstraßen überwinden, die sich über Jahrtausende nicht ändern, und Flüsse durchwatete man an wenigen naturgegebenen Furten. Demgegenüber sind in Gebieten ohne nennenswerte naturräumliche Barrieren die Optionen für Wege sehr offen. Hier dienen archäologisch belegte Siedlungen aus der gesuchten Periode oder Gunstzonen in der Nähe von Quellen oder Wasserstellen als wichtige Ankerpunkte zur Rekonstruktion antiker Wege. Darüberhinaus sind auf Luftbildern sichtbare *hollow ways* ein probates Mittel zur Rekonstruktion von Wegesystemen, insbesondere in wenig anthropogen überformten Gebieten wie z.B. in den Steppenregionen Nordmesopotamiens. Drastische Veränderungen der Landschaft durch Menschen in den letzten hundert Jahren mit massiver Zunahme der Siedlungen, damit einhergehendem modernem Straßenbau sowie die zunehmend auf mechanischer Bewässerung beruhende Landwirtschaft mit vermehrtem Brunnen- und Kanalbau machen es schwierig sich die antiken Bedingungen vorzustellen. Umso wichtiger sind die *Corona* Satellitenbilder der 1960er Jahre, die eine noch wenig gestörte Landschaft Nordmesopotamiens zeigen.

Die naturräumlichen Gegebenheiten und die Umwelt der zu durchquerenden Region sowie die Jahreszeit beeinflussten stets die Wahl eines Weges. Aber auch der Zweck der Unternehmung und die geopolitischen Zustände spielten eine entscheidende Rolle. Die in wenigen Texten erwähnten Wege sind nicht gerade Linien von A nach B auf leeren Landkarten, sondern das Ergebnis einer Entscheidungskette, die die Reisenden vielleicht nicht Schritt um Schritt, aber zuweilen Etappe um Etappe trafen und die selten explizit erörtert werden.

Wie aber sah die Landschaft aus, durch die man im Altertum zog? Wo gab es Wasser für Reisende und Lasttiere? Zog man durch eine trockene, baumleere Ödnis oder durch Sumpfgebiete? Was passierte, wenn es regnete oder schneite? Wo fanden Reisende abends eine sichere Unterkunft, wenn es keine Siedlung gab? Antworten zu den Rahmenbedingungen und den allgemeinen Voraussetzun-

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gen für Routen und Reisen kann man im **ersten Teil** in fünf Beiträgen finden:

Katleen Deckers und Michelle de Gruchy gelingt es Hinweise auf die Vegetation Nordmesopotamiens in der Bronzezeit anhand der aus Holz, Samen und Früchten gewonnenen Daten zu gewinnen. Die mehr oder weniger üppige Vegetation spielte eine mindestens so wichtige Rolle in der Wahl der Route wie der Neigungswinkel der Pisten, den die mechanistische Methode der Routenermittlung verwendet.

Gerne wird in der modernen Forschung angenommen, dass in der winterlichen Regenzeit jede Bewegung zum Erliegen kam. Anhand der besonders reichhaltigen Archive aus Mari bzw. Tell Lailan kann **Hervé Reculeau** die starken Einflüsse der Jahreszeit und der damit verbundenen Bedingungen von Niederschlag und Klima auf Reisende dokumentieren.

Eva Cancik-Kirschbaum thematisiert den Zugang von Reisenden zu Wasser, der gerade für die semi-ariden und ariden Gebiete der Jezirah und der syrischen Wüste stets essentiell war. Sie zeigt anhand der Texte des 2. Jahrtausends, wie damals das Problem des Zugangs zu Trinkwasser für Mensch und Tier auf Strecken, die nicht in der Nähe von Wasserläufen oder in wasserführenden Gunstzonen liegen, gelöst wurde. Die in Zusammenarbeit mit Christoph Fink erstellte Karte zu den Wasserstellen ist ein wertvolles Hilfsmittel für die Suche nach antiken Routen durch die Steppe.

Albert Dietz nutzt Reiseberichte des späten 19. und frühen 20. Jahrhunderts n. Chr., um Parameter des Reisens zu rekonstruieren, die damals – in einer noch weniger drastisch veränderten Umwelt und vor der Motorisierung – in vieler Hinsicht ähnlich waren zu denen des 2. Jahrtausends v. Chr. Dazu gehören neben der Reisegeschwindigkeit auch positive und negative Faktoren für die Wahl einer Route wie Wasserstellen und Furten, Vegetation, wilde Tiere oder kriegerische Nomadenstämme, die in den Reiseberichten expliziter geschildert werden als in den antiken Texten, aber zu allen Zeiten ausschlaggebend waren.

Christophe Cruz und Mélodie Poncet zeigen, welcher komplexen Methoden der IT es bedarf, um durchsuchbare Plattformen zu erschaffen, in denen das Wissen zu Lokalitäten und Routen kombiniert abgerufen werden kann. Ein Wissen, das aus Texten einerseits und archäologischen Erkenntnissen andererseits gewonnen wurde! Sie demonstrieren die Schritte, die im Bereich der Wissensmodellierung nötig sind und die auf der Verwendung von Ontologien aufbauen. Letztere greifen auf Grundsätze der Logik und der semantischen Web-Technologie zurück und erlauben auch die Verwaltung unvollständiger Daten zu Reisen sowie deren visuelle Darstellungen.

Der **zweite Teil** des Buchs ist einigen ausgewählten Reiserouten in Obermesopotamien gewidmet:

Aline Tenu, **Juan-Luis Montero Fenollós und Francisco Caramelo** konnten dank der in jüngerer Zeit ausgegrabenen Fundstätte Qabr Abu al-'Atiq am Euphrat eine mittelassyrische Route verlängern und präziser festlegen, die diesen Ort auf einer ziemlich unbequemen Strecke durch die trockenen Steppengebiete mit Aššur verband.

Eine Reihe altbabylonischer Verwaltungstexte aus Mari erlaubt es, ein Itinerar der Zeit Zimri-Lims von Obermesopotamien über den Balih bis zum Euphrat und darüber hinaus bis nach Ugarit zu rekonstruieren, das ansonsten nicht dokumentiert ist. **Dominique Charpin** untersucht dieses Dossier neu, stellt aber auch theoretische Überlegungen an, wie antike Itinerare und Reiserouten anhand verschiedener Textgenres rekonstruiert werden können.

Drei altbabylonische Texte bezeugen alle Tagesetappen einer sehr langen Reise, die von Larsa bis Imar und wieder zurück führte. Es ist die ausführlichste Quelle für die gesamte mesopotamische Schriftdokumentation zu einer tatsächlich begangenen Route. W. W. Hallo, einer der Erstherausgeber, fasste die Dokumente unter der Bezeichnung "Road to Emar" zusammen. **Nele Ziegler**, **Adelheid Otto und Christoph Fink** haben es unternommen, diese lange Reise, von der 81 Etappen namentlich genannt werden, neuerlich zu untersuchen. Die gemeinsame, interdisziplinäre Neubearbeitung ermöglichte die erstmalige Identifikation mehrerer antiker Ortslagen mit Tells. Streckenweise konnten die Wege anhand von *hollow ways* nachverfolgt werden, und in anderen Wegstücken war es möglich, zumindest einen groben Verlauf der Route vorzuschlagen. Auch vom methodischen Standpunkt ist die Studie interessant, kann sie doch belegen, dass die auf Berechnungen des Gefälles beruhende „*least-cost path*" (LCP) Methode zur Wegerekonstruktion bisweilen irreführend ist.

Und schließlich erlaubte die interdisziplinäre Kooperation es **Nele Ziegler und Adelheid Otto**, die lange gesuchte Hauptstadt Ekallatum in Tell Ḥuwaish anzusiedeln, das zuvor mit Ubase identifiziert worden war, während Ekallatum im nahegelegenen Tell Haikal vermutet wurde. Die Arbeit stellt nicht nur die Quellen zu Ekallatum zusammen, sondern geht auch der Frage nach, auf welche Parameter die irrtümliche Lokalisierung zurückging. Die Studie kann als Musterbeispiel dienen, welche Möglichkeiten interdisziplinäre historische Geographieforschung bei der Lokalisierung lange gesuchter Orte eröffnet.

Dieser dritte Band der Reihe *Entre les fleuves* in BBVO krönt eine seit 2006 andauernde deutsch-französische Kooperation unter Leitung von Nele Ziegler (Paris), Eva

Cancik-Kirschbaum (Berlin) und Adelheid Otto (Mainz, dann München), die sich der kombinierten Analyse philologischer und archäologischer Daten verschrieben hat. Das Vorhaben wurde intensiv in zwei interdisziplinären Projekten zur Historischen Geographie Obermesopotamiens im 2. Jahrtausend verwirklicht, die Spezialistinnen und Spezialisten der altbabylonischen und der mittelassyrischen Archive, der Archäologie und der IT zusammenbrachten. Das Projekt HIGEOMES („Die historische Geographie Obermesopotamiens im 2. Jt. v. Chr.“) wurde 2011-2014 und das Folgeprojekt TexTelSem („Texte, Tells und Semantik“) 2014-2017 von der Agence Nationale de la Recherche (ANR) und der Deutschen Forschungsgemeinschaft (DFG) gefördert, beiden Institutionen gilt unser verbindlichster Dank.

Entre les fleuves – III hat eine lange Geschichte.

Der Keim dazu wurde während der genannten deutsch-französischen Kooperationsprojekte gelegt. Einige der hier publizierten Beiträge sind wahre “Kinder” dieser Zusammenarbeit und erwähnen dies in ihrer Einleitung. Sie gehen auf Vorträge zurück, die während der gemeinsamen Projekttreffen in Paris, Dijon, Berlin, Mainz und München zwischen 2012 und 2017 gehalten wurden. Für die Verzögerung bei der Drucklegung dieses Bandes entschuldigen wir uns vielmals bei allen Autoren, die frühzeitig ihre Manuskripte abgeliefert haben. An dem Plan, die im Rahmen des Forschungsprojekts unternommenen Studien zu Itineraren und Wegesystemen in einem Band zu vereinen, wurde von uns jedoch festgehalten, denn es sollte vermieden werden, dass thematisch aufeinander abgestimmte Arbeiten in verstreuten Publikationen erscheinen.

Einige der hier versammelten Studien entstanden allerdings erst im Nachfeld der Projekt-Kooperation oder wuchsen beim Schreiben mehr und mehr an.

Erstes und hauptsächliches Ziel der beiden oben genannten Forschungsprojekte war es, die Daten zu den Toponymen des 2. Jahrtausends v. Chr. und die für diese Periode bekannten archäologischen Fundstätten und Surveys ganz Obermesopotamiens und des Osttigrisgebiets zu sammeln, zu sortieren und in eigens konzipierte Datenbanken einzuspeisen, wobei dies immer im Rahmen einer quellenkritischen Forschung geschah. Die 6 Bände der Reihe *Materialien zu Toponymie und Topographie* (*MTT*), die im Rahmen der ANR und DFG-geförderten Projekte entstanden, geben davon einen ersten Eindruck. Die Früchte der jahrelangen Sammlungstätigkeit sieht man in *ELF – III* besonders eindringlich in den Karten, die von Christoph Fink erstellt wurden und dessen Bemühungen besonders hervorgehoben werden müssen. Den Karten ist es auch geschuldet, dass dieses Buch im DinA4 Format erscheint. Wir danken den Herausgebern der BBVO, insbesondere Eva Cancik-Kirschbaum, für die Aufnahme des Buches in ihre Reihe und die Änderung des Formats.

Gut geführte Kooperationsprojekte haben ein Nachleben und tragen Früchte auch noch Jahre nach Beendigung der offiziellen Zusammenarbeit, weil die gesammelten Daten das Startkapital zu neuen Forschungen bildet. So ist es hier der Fall. Die Basis für die konkreten Ergebnisse in diesem Band bildet die in den Jahren 2011-2017 geleistete Grundlagenforschung. Man sieht aber, welch weitreichenden Erkenntnisse aus den gesammelten Daten noch fünf Jahre nach Beendigung einer Kooperation gezogen werden können.

Ein von der französischen ANR finanziertes Projekt mit dem Kürzel PCEHM (*Pouvoir et Culture écrite en Haute Mésopotamie*) bot Nele Ziegler den Rahmen, sich noch einmal intensiv mit dem obermesopotamischen Raum zu befassen. Dank dieser Unterstützung und der kontinuierlichen Bemühungen von Adelheid Otto konnte dieser Band endlich abgeschlossen werden.

Der Publikationsfonds des Collège de France gewährte einen Zuschuß für die Veröffentlichung dieses Werkes. Mögen Thomas Römer, der verwaltende Leiter des Collège de France, und Patrick Boucheron, der Vorsitzende der Kommission für Veröffentlichungen, hier den Ausdruck unserer Anerkennung finden.

Der Open Access Fonds der LMU München ermöglichte dankenswerterweise die sofortige Bereitstellung in Open Access.

Zuletzt danken wir nicht nur den jahrelangen Mitstreiterinnen und Mitstreitern im Historischen Geographie-Projekt für den wunderbar inspirierenden gegenseitigen Austausch, sondern auch ganz besonders Peter Werner, der mit Engelsgeduld und enormer Hilfsbereitschaft gewohnt professionell die Drucklegung dieses nicht ganz einfach zu realisierenden Bandes vorbereitet hat.

München und Paris, 11. November 2023

Avant-propos

Adelheid Otto* & Nele Ziegler**

Sans connaissance de la géographie historique, il ne peut y avoir de reconstruction fiable de l'histoire. Ni les relations politiques – guerres ou alliances – ni les activités économiques sous forme de commerce avec certaines régions et d'échange de biens entre royaumes, ni les nombreux autres contacts, ne peuvent être réellement compris si leur localisation est incertaine. Depuis qu'est né l'intérêt pour le Proche-Orient ancien, l'identification de données géographiques – qu'il s'agisse des noms des villes antiques, des pays, des montagnes, des cours d'eau – et l'accès aux cartes et aux images satellites ont énormément progressé. Il semble aujourd'hui inimaginable qu'Ebla n'ait pas encore été localisée avant 1968 ; de même, ce n'est que depuis 1992 que Tuttul a été identifiée avec certitude. L'emplacement de Malgium à Tell Yassir est une découverte toute récente d'archéologues irakiens ! Mais il reste encore beaucoup à faire.

Les itinéraires et les descriptions de routes font partie des sources les plus remarquables pour les études de géographie historique. Ils offrent aux chercheurs la possibilité de déterminer approximativement le réseau routier antique à l'aide des étapes mentionnées dans les textes et de proposer ensuite des identifications concrètes de toponymes avec des tells. Cela peut se faire au mieux dans le cadre d'une collaboration interdisciplinaire entre la philologie et l'archéologie.

Les descriptions d'itinéraires se prêtent particulièrement bien à la reconstitution de la géographie historique là où les conditions naturelles dictent leurs chemins aux voyageurs. Les obstacles tels que les montagnes ne pouvaient être franchis qu'à l'endroit de cols qui n'ont pas changé depuis des millénaires, et les rivières étaient traversées grâce à quelques rares gués naturels. En revanche, dans les régions sans barrières naturelles notables, les options de passages étaient très ouvertes. L'existence de sites archéologiques de la période recherchée ou la détermination des zones favorisées à proximité de sources ou de points d'eau constituent alors des points d'ancrage importants pour la reconstitution des routes anciennes. En outre, le repérage des *hollow ways* visibles sur les photos aériennes permet parfois de reconstituer les systèmes de circulation, en particulier dans les régions peu anthropisées comme les steppes de Mésopotamie du Nord. Les modifications drastiques du paysage par l'homme au cours des cent dernières années, avec l'augmentation des habitations, la construction de routes modernes qui l'accompagne ainsi que l'agriculture de plus en plus basée sur l'irrigation mécanique conduisant au creusement de puits et de canaux plus nombreux, rendent la reconstitution des conditions antiques difficile. Les images des satellites *Corona* des années 1960, qui montrent un paysage moins perturbé dans le nord de la Mésopotamie, sont d'autant plus importantes.

Les conditions naturelles, l'environnement de la région à traverser ainsi que la saison influençaient toujours le choix d'un itinéraire. Mais la nature de l'entreprise et les conditions géopolitiques jouaient également un rôle décisif. Les déplacements connus par des textes anciens ne s'apparentent pas à des lignes droites de A à B sur des cartes vierges, mais étaient le résultat d'une chaîne de décisions que les voyageurs prenaient parfois étape par étape, et qui sont rarement explicitées par les auteurs.

À quoi ressemblaient les paysages que l'on parcourait dans l'Antiquité ? Traversait-on des terres arides et dépourvues d'arbres ou des zones marécageuses ? Où y avait-il de l'eau pour les voyageurs et les bêtes de somme ? Que se passait-il lorsqu'il pleuvait ou lorsqu'il neigeait ? Quel abri sûr attendait les voyageurs le soir lorsqu'il n'y avait pas de village ? Des réponses à ces questions sur les conditions générales des déplacements et les préalables aux voyages se trouvent dans cinq études de la **première partie**.

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Katleen Deckers et Michelle de Gruchy réunissent les indications sur la couverture végétale de la Haute-Mésopotamie à l'Âge du Bronze grâce aux traces laissées par du bois, des graines et des fruits. L'état de la végétation jouait un rôle au moins aussi important dans le choix de l'itinéraire que la pente des routes prise en compte par la méthode mécaniste de détermination des itinéraires (*Least Cost Path*).

La recherche moderne admet volontiers que tout mouvement s'arrêtait pendant la saison des pluies hivernales. En se basant sur les archives particulièrement riches de Mari ou de Tell Lailan, **Hervé Reculeau** peut documenter les fortes influences des variations saisonnières sur les voyageurs. Il retrace les conditions de précipitations et de climat qui y sont liées.

Eva Cancik-Kirschbaum aborde le thème des voyages dans des régions semi-arides et arides de la Jezirah et du désert syrien. Elle montre, à l'aide des textes du II^e^ millénaire, comment était résolu à l'époque le problème de l'accès à l'eau potable pour les hommes et les animaux. La carte des points d'eau, publiée dans sa contribution et réalisée en collaboration avec Christoph Fink, est un outil précieux pour la recherche d'itinéraires antiques à travers la steppe.

Albert Dietz utilise des récits de voyage de la fin du 19^e^ et du début du 20^e^ siècle après J.-C. pour étudier des paramètres qui, outre la vitesse de déplacement, étaient à l'époque à bien des égards similaires à ceux du II^e^ millénaire avant J.-C. L'environnement était alors encore moins dégradé. Les récits de voyages font état des facteurs favorables pour le choix d'un itinéraire tels que les points d'eau et les gués, la végétation, ou mentionnent les dangers comme la présence d'animaux sauvages ou de tribus nomades belliqueuses. Ces facteurs étaient déterminants à toutes les époques mais sont à peine abordés dans la documentation antique.

Christophe Cruz et Mélodie Poncet montrent quelles méthodes complexes de l'informatique sont nécessaires pour créer des plateformes en ligne dans lesquelles les connaissances sur les lieux et les itinéraires peuvent être combinées : un savoir qui a été obtenu à partir de textes d'une part et de connaissances archéologiques d'autre part. Ils démontrent les étapes nécessaires dans le domaine de la modélisation des connaissances, qui se basent sur l'utilisation d'ontologies. Ces dernières font appel aux principes de la logique et de la technologie du web sémantique et permettent également de gérer des données incomplètes sur les voyages ainsi que leurs représentations visuelles.

La **deuxième partie** du livre est consacrée à quelques itinéraires choisis en Haute-Mésopotamie.

Aline Tenu, **Juan-Luis Montero Fenollós et Francisco Caramelo** ont pu, grâce à la fouille récente de Qabr Abu al-'Atiq, sur le Moyen-Euphrate syrien, prolonger et préciser un itinéraire médio-assyrien qui reliait ce site à Aššur à travers les zones de steppes arides.

Une série de textes administratifs paléo-babyloniens provenant de Mari permet de reconstituer un itinéraire de l'époque de Zimri-Lim, menant de Mari au Habur et ensuite au Balih jusqu'à l'Euphrate et au-delà jusqu'à Ugarit, qui n'est pas documenté par ailleurs. **Dominique Charpin** réexamine ce dossier, après avoir proposé une réflexion théorique sur la manière dont les routes et les itinéraires antiques peuvent être reconstitués à partir de différents genres de textes.

Trois textes paléo-babyloniens énumèrent toutes les étapes quotidiennes d'un très long voyage aller-retour entre Larsa et Imar. Il s'agit de la source la plus détaillée de toute la documentation écrite mésopotamienne concernant un itinéraire qui fut réellement emprunté. W. W. Hallo, l'un des premiers éditeurs, a regroupé les documents sous le titre « *Road to Emar* ». **Nele Ziegler**, **Adelheid Otto et Christoph Fink** ont entrepris d'étudier à nouveau ce long voyage, dont 81 étapes différents sont nommées. Ce travail interdisciplinaire a permis d'identifier pour la première fois plusieurs sites antiques avec des tells. Par endroits, les routes ont pu être suivies à l'aide de *hollow ways*, et dans d'autres tronçons, il a été possible de proposer au moins un tracé approximatif de l'itinéraire. L'étude est également intéressante d'un point de vue méthodologique, car elle permet de démontrer que la méthode *Least Cost Path* (LCP), basée sur des calculs de pente, est parfois trompeuse pour la reconstruction des chemins.

Enfin, la coopération interdisciplinaire a permis à **Nele Ziegler et Adelheid Otto** de situer Ekallatum, la capitale longtemps recherchée, à Tell Ḥuwaish, précédemment identifiée à Ubase, alors qu'on pensait que la première se trouvait à Tell Haikal, non loin de là. Le travail ne se contente pas de rassembler les sources relatives à Ekallatum, mais s'interroge également sur les paramètres à l'origine de cette localisation erronée. L'étude peut servir d'exemple type des possibilités qu'offre une enquête historique interdisciplinaire en géographie pour la localisation de lieux recherchés depuis longtemps.

Ce troisième volume de la collection *Entre les fleuves* dans la série BBVO couronne une coopération franco-allemande sous la direction de Nele Ziegler (Paris), Eva Cancik-Kirschbaum (Berlin) et Adelheid Otto (Mayence, puis Munich), qui dure depuis 2006 et qui se consacre à l'ana-

lyse combinée de données philologiques et archéologiques. Elle s'est intensifiée lors de deux projets interdisciplinaires sur la géographie historique de la Haute-Mésopotamie au II^e^ millénaire, qui ont réuni des spécialistes des archives paléo-babyloniennes et médio-assyriennes, de l'archéologie et de l'informatique. Le projet HIGEOMES (« La géographie historique de la Haute-Mésopotamie au II^e^ millénaire av. J.-C. ») a été financé par l'Agence Nationale de la Recherche (ANR) et la Deutsche Forschungsgemeinschaft (DFG) en 2011-2014 et le projet suivant TexTelSem (« Textes, tells et sémantique ») par les mêmes institutions en 2014-2017. Nous les en remercions vivement.

Entre les fleuves – III a une longue histoire.

Le germe a été posé lors des projets franco-allemands susmentionnés. Certaines des contributions publiées ici sont de véritables « enfants » de cette coopération et ce fait est mentionné dans leur introduction. Elles sont issues de conférences données lors des tables rondes ou colloques à Paris, Dijon, Berlin, Mayence et Munich entre 2012 et 2017. Nous présentons nos excuses les plus sincères à tous les auteurs qui ont remis leurs manuscrits en temps voulu, pour le retard pris dans la réalisation de cet ouvrage. Nous avons cependant maintenu l'idée initiale de réunir en un seul volume les études sur les itinéraires et les systèmes de communication, car il fallait éviter que des travaux thématiquement coordonnés ne paraissent dans des publications dispersées.

Certaines des études rassemblées ici ont toutefois été rédigées après la coopération financée ou ont pris de l'ampleur au fur et à mesure de leur rédaction.

Le premier et principal objectif des deux projets de recherche mentionnés ci-dessus était de collecter et de trier de manière critique les données relatives aux toponymes de la Haute-Mésopotamie du II^e^ millénaire avant J.-C. ainsi que les sites archéologiques et les prospections connus pour cette période et de les intégrer dans des bases de données conçues à cet effet. Les six volumes de la série *Matériaux sur la toponymie et la topographie* (*MTT*), réalisés dans le cadre des projets financés par l'ANR et la DFG, en donnent un aperçu. Dans *ElF – III*, les cartes réalisées par Christoph Fink, dont les efforts méritent d'être particulièrement soulignés, montrent de manière frappante les fruits de ces années de collecte. C'est en raison de ces cartes que ce livre est publié au format A4. Nous souhaitons remercier ici les éditeurs des *Berliner Beiträge zum Vorderen Orient* et tout particulièrement Eva Cancik-Kirschbaum d'avoir inclus ce livre dans la série et d'en avoir modifié le format.

Les projets de coopération bien menés ont une durée de vie qui dépasse leur fin administrative; ils portent leurs fruits même des années après l'achèvement de la collaboration officielle, car les données collectées constituent le capital de départ pour de nouvelles recherches. C'est le cas ici. La recherche fondamentale menée entre 2011 et 2017 constitue la base des résultats concrets présentés dans ce volume. Mais on voit bien l'ampleur des enseignements qui peuvent être tirés des données collectées cinq ans après la fin d'une coopération.

Un nouveau projet financé par l'ANR depuis octobre 2022 et portant le sigle PCEHM (*Pouvoir et Culture écrite en Haute-Mésopotamie*) a offert à Nele Ziegler le cadre nécessaire pour se pencher une nouvelle fois de manière intensive sur l'espace de la Haute-Mésopotamie. Cette impulsion jointe aux efforts de longue date de Adelheid Otto a permis d'achever le travail sur les manuscrits. La commission des publications du Collège de France a octroyé une contribution financière à la publication de cet ouvrage : que Thomas Römer, Administrateur du Collège de France, et Patrick Boucheron, Président de la Commission des Publications, trouvent ici l'expression de notre gratitude.

Le fonds Open Access de la LMU de Munich a gracieusement permis la mise à disposition immédiate en Open Access.

Enfin, nous remercions non seulement les membres de longue date du projet de géographie historique pour leurs échanges mutuels merveilleusement inspirants, mais aussi tout particulièrement Peter Werner qui, avec une patience d'ange et une énorme serviabilité, a préparé avec son professionnalisme habituel l'impression de ce volume qui n'était pas facile à réaliser.

Munich et Paris, 11 novembre 2023

Preface

Adelheid Otto* & Nele Ziegler**

There is no reliable reconstruction of history without knowledge of historical geography. Neither political interactions—wars or alliances—nor economic processes such as long distance trade or any other kind of interregional contacts between cities and kingdoms can really be understood if their location is uncertain. Since the beginning of research on Near Eastern history, knowledge of geographical features—be it the names of ancient cities, countries, mountains, rivers and canals—and the access to maps and satellite images has increased enormously. Today, it seems inconceivable that up to the 1960s no one knew where Ebla was situated, or that Tuttul has only been securely located since the 1990s. The localisation of Malgium in Tell Yassir is a most recent discovery by Iraqi archaeologists. But there remains a lot to be done.

Itineraries and route descriptions are among the most outstanding sources for the reconstruction of historical geography. They provide researchers with the opportunity to determine the approximate ancient road network based on the stages mentioned in texts. The interdisciplinary co-operation between philology and archaeology may result in the identification of toponyms with archaeologically documented settlements of the respective period.

Route descriptions are particularly well suited for reconstructing historical geography, because natural conditions have always limited the paths chosen by travellers. Mountains can only be traversed on a few mountain passes that do not change over thousands of years, and rivers can only be crossed at a few natural fords. In contrast, areas without significant natural barriers offer many options for routes. Here, archaeologically documented settlements from the period in question or the detection of naturally favoured areas in the proximity of water supply serve as anchor points for the reconstruction of ancient routes. In addition, *hollow ways* visible on aerial photographs are an effective means of reconstructing connections between settlements, especially in areas that have been little altered by human activity, such as the steppe regions of Northern Mesopotamia. Nevertheless, the human impact on the landscape has been massive during the last hundred years—increase in settlements followed by road constructions and intensive agriculture based on mechanical irrigation—and makes it difficult to envisage ancient conditions. All the more important are the *Corona* satellite images from the 1960s, which show a little disturbed landscape of Northern Mesopotamia.

The natural conditions and environment of the region to be travelled through, as well as the time of the year, have always influenced the choice of route. In addition, the purpose of the journey and the geopolitical conditions also played a decisive role. The routes mentioned in a few texts are no straight lines from A to B on blank maps, but the result of a chain of decisions that the travellers made, perhaps not step by step, but sometimes stage by stage, and which are rarely explicitly discussed in the texts.

But what did the landscape look like that people were passing through back then? Where would there have been water for travellers and pack animals? Were they passing marshland or a dry, treeless wasteland? What happened when it rained or snowed? Where did travellers find safe accommodation in the evening if there was no settlement? Answers to the general conditions and the general requirements for routes and journeys can be found in five articles in the **first part** of this book:

Katleen Deckers and Michelle de Gruchy analyse the vegetation of Northern Mesopotamia in the Bronze Age on the basis of data obtained from wood, seeds and fruit. The more or less lush vegetation played at least as important a role in the choice of route as the slope only used by the mechanistic method of route determination.

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In modern research, it is often assumed that all movement came to a standstill during the wet season in winter. Using the particularly rich archives from Mari and Tell Lailan, **Hervé Reculeau** is able to document the strong influence of the season and the associated conditions of precipitation and climate on travellers.

Eva Cancik-Kirschbaum focuses on travellers' access to water, which was always essential for the semi-arid and arid regions of the Jezirah and the Syrian desert. Using texts from the 2nd millennium, she reveals how the challenging access to drinking water for humans and animals was solved on routes that were neither close to watercourses nor in water-bearing zones of favour. The map of the water points developed in collaboration with Christoph Fink is a valuable aid in the search for ancient routes through the steppe.

Albert Dietz uses travelogues from the late 19th and early 20th century AD in order to explore parameters of travel that were then—in a less drastically changed environment and before motorization—in many respects similar to those of the 2nd millennium BC. The parameters include travel speed, vegetation, positive and negative factors for the choice of a route such as waterholes and fords, wild animals or hostile nomadic tribes, which are described more explicitly in the travelogues than in the ancient texts, but were decisive at all times.

Christophe Cruz and Mélodie Poncet show the complex IT methods required to create searchable platforms in which knowledge about localities and routes can be retrieved in combination—information gained from texts on the one hand and archaeological findings on the other. They demonstrate the multiple steps required in the field of knowledge modelling, which are based on the use of ontologies. The latter are based on the principles of logic and semantic web technology and even allow incomplete data on journeys to be managed and visualised.

The **second part** of the book is dedicated to some selected examples of routes in Upper Mesopotamia:

Thanks to the recently excavated site of Qabr Abu al-'Atiq on the Euphrates, **Aline Tenu**, **Juan-Luis Montero Fenollós and Francisco Caramelo** were able to extend and more precisely define a Middle Assyrian route that connected this site with Aššur along a rather inconvenient, but obviously feasible route through the dry steppe.

A series of Old Babylonian administrative texts from Mari makes it possible to reconstruct an itinerary of the time of Zimri-Lim from Upper Mesopotamia across the Balih to the Euphrates and beyond to Ugarit. **Dominique Charpin** examines this dossier anew, and offers theoretical reflections on how ancient itineraries and travel routes can be reconstituted on the basis of different text genres.

Three Old Babylonian texts attest to all the daily stages of a very long journey that led from Larsa to Imar and back again. It is the most detailed source for the entire Mesopotamian written documentation of a route that was actually travelled. W. W. Hallo, one of the first editors, summarised the documents under the title "Road to Emar". **Nele Ziegler**, **Adelheid Otto and Christoph Fink** re-examined this long journey, 81 stages of which are mentioned by name. The joint, interdisciplinary investigation made it possible to identify several toponyms with tells for the first time. In some places, the routes could be traced using *hollow ways*, in other sections it was possible to propose an approximate course of the journey. The study is also interesting from a methodological point of view, as it illustrates that the least-cost path (LCP) method of route reconstruction, which is based on calculations of the gradient only, can sometimes be misleading.

And finally, the interdisciplinary cooperation allowed **Nele Ziegler and Adelheid Otto** to locate the long-sought capital Ekallatum in Tell Ḥuwaish, which had previously been identified with Ubase, while Ekallatum was assumed to be in nearby Tell Haikal. The work not only compiles the sources on Ekallatum, but also explores the question of which parameters were responsible for the former erroneous localisation.

This third volume of the series *Entre les fleuves* in BBVO crowns a German-French cooperation under the direction of Nele Ziegler (Paris), Eva Cancik-Kirschbaum (Berlin) and Adelheid Otto (Mainz, then Munich), that began in 2006 and is dedicated to the combined analysis of philological and archaeological data. The project was intensively realised in two interdisciplinary projects on Upper Mesopotamia's historical geography in the 2nd millennium, which brought together specialists from the Old Babylonian and Middle Assyrian archives, archaeology and IT. The HIGEOMES project ("The historical geography of Upper Mesopotamia in the 2nd millennium BC") was funded by the *Agence Nationale de la Recherche* (ANR) and the *German Research Foundation / Deutsche Forschungsgemeinschaft* (DFG) from 2011-2014 and the follow-up project TexTelSem ("Texts, Tells and Semantics") from 2014-2017, and we would like to express our sincere thanks to both institutions.

Entre les fleuves – III has a long history. The seeds were sown during the aforementioned German-French cooperation projects. Some of the articles published here are true "offsprings" of this cooperation and mention this in their introduction. They are based on lectures given during the joint project meetings in Paris, Dijon, Berlin, Mainz and Munich between 2012 and 2017. We apologise for the delay in printing to all the authors who submitted their manu-

scripts early. However, we adhered to the plan of combining the studies on itineraries and travelling in one volume, as we wanted to keep these thematically coherent contributions together. However, some of the studies collected here only emerged in the aftermath of the funded cooperation or grew more and more during the writing process in recent years.

The first and main aim of the two research projects mentioned above was to collect and sort the data on the toponyms of the 2nd millennium BC and the archaeological sites and surveys known for this period throughout Upper Mesopotamia and the eastern Tigris region and to enter them into specially designed databases, always within the framework of source-critical research. The 6 volumes of the series *Materialien zu Toponymie und Topographie / Matériaux pour l'étude de la toponymie et de la topographie* (*MTT*), which were produced as part of the ANR- and DFG-funded projects, give a first impression of this. The fruit of years of collecting activity can be seen particularly clearly in *ElF – III* in the maps produced by Christoph Fink, whose efforts deserve special mention. The maps also determined the format of this book, which exceptionally appears in A4 format.

We would like to thank the editors of *Berliner Beiträge zum Vorderen Orient*—and in particular Eva Cancik-Kirschbaum—for including the book in their series and changing the format.

Well-managed cooperation projects have an afterlife and continue to bear fruit even years after the official collaboration has ended. The collected data form the starting capital for new research. This is the case here. The groundwork research carried out between 2011 and 2017 forms the basis for the concrete results presented in this volume.

A new project funded by the French *Agence Nationale de la Recherche* (ANR) with the acronym PCEHM (*Pouvoir et Culture écrite en Haute Mésopotamie*) provided Nele Ziegler with the framework to once again focus intensively on the Upper Mesopotamian region. This boost, combined with Adelheid Otto's long-standing efforts, enabled the work on the manuscripts to be completed.

The Collège de France provided funding for the publication of this work: we would like to express our gratitude to Thomas Römer, Administrator of the Collège de France, and Patrick Boucheron, Chairman of the Publications Committee for this support.

The Open Access Fund of the LMU Munich kindly made it possible to make the publication immediately available in Open Access.

Finally, we would like to thank not only our long-standing colleagues in the research projects on Historical Geography for the wonderfully inspiring mutual exchange, but Peter Werner in particular, who prepared the printing of this volume, which was not easy to realise, with his usual professionalism, patience and enormous willingness to help.

Munich and Paris, November 11th, 2023

Abbreviations

AAS *Les Annales archéologiques de Syrie*
ADOG Abhandlungen der Deutschen Orient-Gesellschaft
AfO *Archiv für Orientforschung*
AHw Soden, W. von, *Akkadisches Handwörterbuch* I-III, Wiesbaden, 1965, 1972, 1981
AJA *American Journal of Archaeology*
AnSt *Anatolian Studies*
AOAT Alter Orient und Altes Testament
AncNearEast Suppl. *Ancient Near Eastern Studies, Supplement*
AoF *Altorientalische Forschungen*
ARM Archives royales de Mari
AuOr *Aula Orientalis*
BAH Bibliothèque archéologique et historique
BaM *Baghdader Mitteilungen*
BAR S British Archaeological Reports. International Series
BATSH Berichte der Ausgrabung Tall Šēḫ-Ḥamad/Dūr-Katlimmu
BBVO Berliner Beiträge zum Vorderen Orient
BiOr *Bibliotheca Orientalis*
BMECCJ Bulletin of the Middle Eastern Culture Center in Japan
CAD The Assyrian Dictionary of the Oriental Institute ot the University of Chicago
CDOG Colloquien der Deutschen Orient-Gesellschaft
CM Cuneiform Monographs
DaM *Damaszener Mitteilungen*
FM Florilegium marianum
HANEM History of the Ancient Near East / Monographs
HSAO Heidelberger Studien zum Alten Orient
JCS *Journal of Cuneiform Studies*
JCS SS Journal of Cuneiform Studies. Supplemental Series
JESHO *Journal of the Economic and Social History of the Orient*
JNEH *Journal of Ancient Near Eastern History*
JNES *Journal of Near Eastern Studies*
JCSMS *Canadian Society for Mesopotamian Studies Journal*
JRGS *Journal of the Royal Geographical Society of London*
KASKAL *KASKAL. Rivista di storia, cultura y ambiente del Vicino Oriente Antico*
LAPO Littératures anciennes du Proche-Orient
MAAO Münchener Abhandlungen zum Alten Orient
MARI *MARI. Annales de Recherches Interdisciplinaires*
MC Mesopotamian Civilizations
MDBP Matériaux pour le Dictionnaire de Babylonien de Paris
MDOG *Mitteilungen der Deutschen Orient-Gesellschaft*
MHEM Mesopotamian History and Environment. Memoirs
MTT Matériaux pour l'étude de la toponymie et de la topographie = Materialien zu Toponymie und Topographie
MVS Münchener Vorderasiatische Studien
NABU *Nouvelles Assyriologiques Brèves et Utilitaires*
OBO Orbis Biblicus et Orientalis
OBO SA Orbis Biblicus et Orientalis. Series Archaeologica
OIP Oriental Institute Publications
OIS Oriental Institute Seminars
OLA Orientalia Lovaniensia Analecta
Or *Orientalia*
OrAn *Oriens Antiquus*
PIHANS Publications de l'Institut historique et archéologique néerlandais de Stamboul
QGS *Quaderni di Geografia Storica (Università di Roma "La Sapienza"*
RA *Revue d'assyriologie et d'archéologie orientale*
RGTC Répertoire Géographique des Textes Cunéiformes
RIMA Royal Inscriptions of Mesopotamia. Assyrian Periods
RIME Royal Inscriptions of Mesopotamia. Early Periods
RINAP The Royal Inscriptions of the Neo-Assyrian Period

RlA *Reallexikon der Assyriologie und Vorderasiatischen Archäologie*
SAA State Archives of Assyria
SAAB *State Archives of Assyria Bulletin*
SAAS State Archives of Assyria Studies
SBL WAW Writings from the Ancient World
SMEA *Studi Micenei ed Egeo-Anatolici*
StCh Studia Chaburensia
TAVO Tübinger Atlas des Vorderen Orients
TAVO B Beihefte zum Tübinger Atlas des Vorderen Orients
TTKY Türk Tarih Kurumu Yayınları
UAVA Untersuchungen zur Assyriologie und Vorderasiatischen Archäologie
UF *Ugarit-Forschungen*
WVDOG Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft
ZA *Zeitschrift für Assyriologie und Vorderasiatische Archäologie*
ZOrA *Zeitschrift für Orient-Archäologie*

1.

Umweltparameter und allgemeine Voraussetzungen für Reisen

Les paramètres environnementaux et les conditions générales des voyages

Environmental Parameters and General Preconditions for Routes and Travelling

Tracking the vegetation in Northern Mesopotamia for the 3rd to the 2nd millennium BC and implications for the road network

Katleen Deckers – Michelle de Gruchy

Introduction

The ease with which a person traverses a space or landscape is made up of several factors: slope, land cover and soil, water as a barrier, water as a transport mechanism, visibility, attractors (a friend's house, a favourite place), taboo zones (including trespassing private property), pre-existing routes, and others (such as toll areas and dangerous places/bad neighbourhoods to name a few) (de Gruchy 2017; Herzog 2014). Some of these variables are culturally specific, but others are physical: slope, land cover/soil/water (for a recent summary see Verhagen et al. 2019). In the Near East, heat is also an important factor and texts describe how some Old Assyrian caravans in the second millennium B.C. would avoid extreme heat, waiting until nighttime to travel (Dercksen 2004: 255-256).

Recent work comparing cost surfaces calculated based on slope and land cover within ten areas across England and Scotland selected for their differences in slope from flat (the Fens) to mountainous (highlands of Scotland) suggests that between these physical variables, land cover may be the most important cost variable—even more important than slope (Caswell 2019). At first this might seem counter-intuitive but consider the relative difficulty of walking along soft beach sand versus through a wildflower meadow, or between a dirt path versus a thicket of thorns, or the danger of walking across quicksand, or how feasible it is to walk through a marsh or a lake.

Land cover can be as much of a barrier as a cliff and as facilitating as flat ground or a gentle slope down a hill. The relative difficulty of land cover is quantified by numbers called terrain coefficients. Through human experiments, it is known, for example, that people expend twice as much energy and time walking across loose sand (such as on a beach or in dunes) than across a paved surface (de Gruchy *et al*. 2017a; Soule & Goldman 1972). Similarly walking along a dirt path or across grass is equivalent, whereas walking through brush is more difficult, increasing in value with the thickness of the brush (de Gruchy *et al*. 2017a; Soule & Goldman 1972).

If the nature of past travel is to be fully understood, then the significance of land cover cannot be ignored. Today northern Mesopotamia is a region composed of desert steppe and industrial-scale agricultural fields aided by large scale irrigation schemes (Zohary 1973; Fao Statistics Division 2013; Smith & Nyrop 1979). Woody vegetation is mainly restricted to patches along the Euphrates River. It consists of *Populus euphratica* (Euphrates poplar), *Salix acmophylla* (weeping willow), and *Tamarix tetandra* or *T. smyrnensis* (tamarisk). Khabur riparian forest vegetation is hardly existent. Moreover, along the Wadi Jarrah in the Upper Khabur, no riverine woody vegetation can be found because the river has been dammed and no longer contains water perennially. Hardly any woody vegetation occurs away from the rivers in Northeastern Syria. The nearest deciduous oak woodland grows about twelve kilometres north of the border at the same elevation as Tell Mozan, about sixty kilometres north of the border near the Balikh and roughly twenty-five kilometres north of the Syrian border at the Middle Euphrates.

Northern Mesopotamia has a steep rainfall gradient from north to south, with values of more than 450 mm annually in the north and as little as 150 mm in the south today. The 250 mm isohyet marks the conventional dry farming border, south of which farming becomes difficult without the use of irrigation. Hence, in this region, small climatic changes may have had a large impact on the vegetation. It is known that the climate over the last 10,000

years has been unstable, but gradually becoming more arid in the Near East (e.g., Bar-Matthews & Kaufmann 1998; Wick *et al*. 2003; Litt *et al*. 2009). The different studies deviate somewhat from another in their results regarding the palaeoclimatic reconstructions, but overall, it is indicated that the 3rd millennium BC (Early Bronze Age) was somewhat moister than today and that there was a drought peak at ca. 4.2 ka BP.

The central question of this manuscript is how the vegetation looked through the 3rd to 2nd millennium BC and what impact this may have had on the routes. We will focus on two areas—the Upper Khabur and the Middle Euphrates—and will apply different methods for reconstructing the vegetation changes.

Methods for tracking former vegetation changes

For a long time, hardly anything was known about former vegetation changes in the study area because of a lack of pollen archives. Over the last decades, charcoal investigations (anthracology) on archaeological sites played a key role for the reconstruction of vegetation. The available charcoal data will be summarized here with the purpose of reconstructing the composition of the local vegetation (as for the ecological interpretation of the taxa see e.g., in Deckers & Pessin 2010 or de Gruchy *et al*. 2017b). Although other factors—like human selection– may have played a role in the representation of woody taxa in charcoal archives from an archaeological site, it is often assumed that, especially in the case of firewood, they approximate the relative proportion of taxa in the vegetation of the area. Therefore, charcoal taxon fragment percentages are used as an indicator of the relative abundance of the taxon in the local vegetation (Smart & Hoffman 1988). In this publication we will summarize charcoal results from 16 sites (please note that the indicated dates are approximative and depend on preliminary excavation reports), 484 samples and more than 56,000 fragments (Table 1 and Appendix Tables).

Nonetheless, from charcoal identifications alone, it is impossible to gain insight into the density and form of the woodland (like has mostly been done in anthracological studies for this region so far). Diameter analysis of charcoal fragments in combination with annual ring width measurements can provide a better understanding of the woodland's former appearance (Deckers 2016b and Deckers *et al*. 2021). In a pilot study on deciduous oak charcoal fragments, we utilized trigonometry to measure the largest diameter present on the charcoal fragment (Paradis-Grenouillet *et al*. 2010). In total, 328 fragments were measured with this method (Deckers 2016b and Deckers *et al*. 2021).

By additionally investigating the wild plant seed data from the archaeological sites within this region and with the knowledge about their growth properties, potential land cover maps for the different periods have been made within a GIS and can be compared against the anthracological data (see de Gruchy *et al*. 2017b). The idea behind the method is that the soil, elevation, and slope limitations of each taxa provide constraints on where the taxa can grow, while the associated habitats (fields, steppe, desert, macchia, meadows, etc.) serve to inform the type of land cover in the locations the taxa grow. While each individual taxon may grow in many different types of habitats, collectively the dozen or more taxa able to grow in a single space will share some common habitats more than others. The most common natural habitat (not anthropogenic habitats like fields, roadsides, irrigation canals, etc.) between the taxa of a space is interpreted as the potential land cover type of that space. The seed and grain data were extracted from the archaeobotanical database ADEMNES at Tübingen (www.ademnes.de). All published seed and grain data within 100 kilometres of the North Jazira study area and south of the Taurus Mountains, dated to the relevant time periods, were selected. Only seed and grain taxa identified to the genus or species level were used (de Gruchy *et al*. 2017b).

Vegetation in the Upper Khabur Basin

Anthracological data indicates that open oak woodland had a more southward distribution between the 3rd and 2nd millennium BC. Open oak woodland also occurred in the third millennium BC at Mozan and Leilan and may also have grown as far south as Bderi in the 3rd millennium BC as indicated by the oak woodland percentage there (Fig. 1). Although the presence of oak charcoal there may perhaps relate to the proximity of Jebel Abd al-Aziz, that still features woodland steppe today (mostly *Pistacia* though).

The diameter measurements in combination with annual ring width indicate that the woodland probably did not consist of tall trees. An average growth rate of 0.7 mm/year was low (corrected for shrinking during charcoalification) and means a radial growth of 14 cm in 100 years. Minimal (corrected) ring width values were 0.2 mm/year, implying a trunk of only 4 cm in 100 years. This slow growth explains the presence of only very few diameters larger than 10 cm (Deckers 2016b and Deckers *et al*. 2021).

The GIS-land cover reconstruction based on the fruits and seeds fits with the anthracological results and it allows gaining a regional picture. In the earlier Early Bronze Age

		number of samples	total number of fragmnents	weight of fragments in gramm	Reference
Upper Khabur	Chagar Bazar	14	183		DECKERS 2016a
	Mozan	97	5979		DECKERS 2010
	Leilan	11	1241		DECKERS & PESSIN 2010
	Bderi	37	1863		ENGEL 1993
	Halaf	9	1304		RIEHL & DECKERS 2009
	Tell Atij	6	128		MCCORRISTON 2007
	Total numbers Upper Khabur	174	10698		
Middle Euphrates	Horum Höyük, 3100-2650 BC	7	353		PESSIN 2004
	Horum Höyük, 2300-2000 BC	4	177		PESSIN 2004
	Horum Höyük, 2000-1700 BC	9	2855		PESSIN 2007
	Tilbesar, 2900-2650 BC	11	1538		PESSIN 2004
	Tilbesar, 2450-2000 BC	11	1505		PESSIN 2004
	Tilbesar, 1800-1600 BC	4	551		PESSIN 2007
	Jerablus, 2900-2650 BC	6	2522		WILKINSON & DECKERS 2015
	Jerablus, 2650-2300 BC	18	2077		WILKINSON & DECKERS 2015
	Shiukh Fawqani, 3100-2900 BC	17	789		PESSIN 2004
	Shiukh Fawqani, 2450-2300 BC	3	387		PESSIN 2004
	Shiukh Fawqani, 1400-1200 BC	8	1119		PESSIN 2004
	Tell Shiyukh Tahtani, 2000-1600 BC	26	2086		new unpublished data
	Bazi, 1600-1350 BC	14	1688		new unpublished data
	Hadidi, 2000-1550 BC	30		286	VAN ZEIST & BAKKER-HEERES 1985
	Hadidi, 1550-1350 BC	43		748	VAN ZEIST & BAKKER-HEERES 1985
	Abd, 3100-2650 BC	15	1093		DECKERS 2019
	Selenkahiyeh	47		622	VAN ZEIST & BAKKER-HEERES 1985
	Emar, 2450-2100 BC	11	18551		DECKERS 2005
	Emar, 2000-1600 BC	7	2091		DECKERS 2005
	Emar, 1600-1200 BC	19	6543		DECKERS 2005
	Total numbers Middle Euphrates	310	45925	1656	

Table 1: List of sites with the number of charcoal samples and fragments used in this study

(contemporary to the Ninevite V period or EJZ0-3a), the land cover of the Upper Khabur Basin consisted of a mix of dry shrub steppe with smaller patches of desert steppe.

For the Middle Bronze Age (MBA), the seed/grain evidence indicates drier environmental conditions. The land cover reconstruction (Fig. 2) indicates that desert steppe dominated the area and only small patches of dry shrub steppe or mixed grass/shrub steppe remained (DE GRUCHY *et al*. 2017b). These changes are also reflected in the charcoal: In the MBA at Tell Mozan the relative proportion of oak strongly diminishes. Further south at MBA Chagar Bazar oak is present, but only in small percentages. In Chagar Bazar, there is a large proportion of charcoal within the group of "others". These "others" include especially a lot of small shrubby woody plants that could not be determined precisely and included quite a lot of *Prosopis* (DE GRUCHY *et al*. 2017b).

In the Late Bronze Age (LBA), then, according to the seed/grain results the landscape became lusher again. It had much more woody vegetation compared to the preceding Middle Bronze Age, with large areas of shrub steppe mixed with a few patches of dry shrub steppe and mixed grass/shrub steppe, though some patches of desert steppe remain (Fig. 3). Unfortunately, there exists at present no charcoal data for the LBA in this region. But there is some data from Tell Halaf from the phase between 1000 and 330 BC that indicates oak woodland also had at that time a more southwards distribution compared to today (DE GRUCHY *et al*. 2017b).

Hence, throughout the second half of the Holocene this vegetation type reached to zones in northern Syria that today lack similar vegetation. There are, however, some indications that fluctuations in the lushness of the open oak woodland took place, especially with somewhat stronger

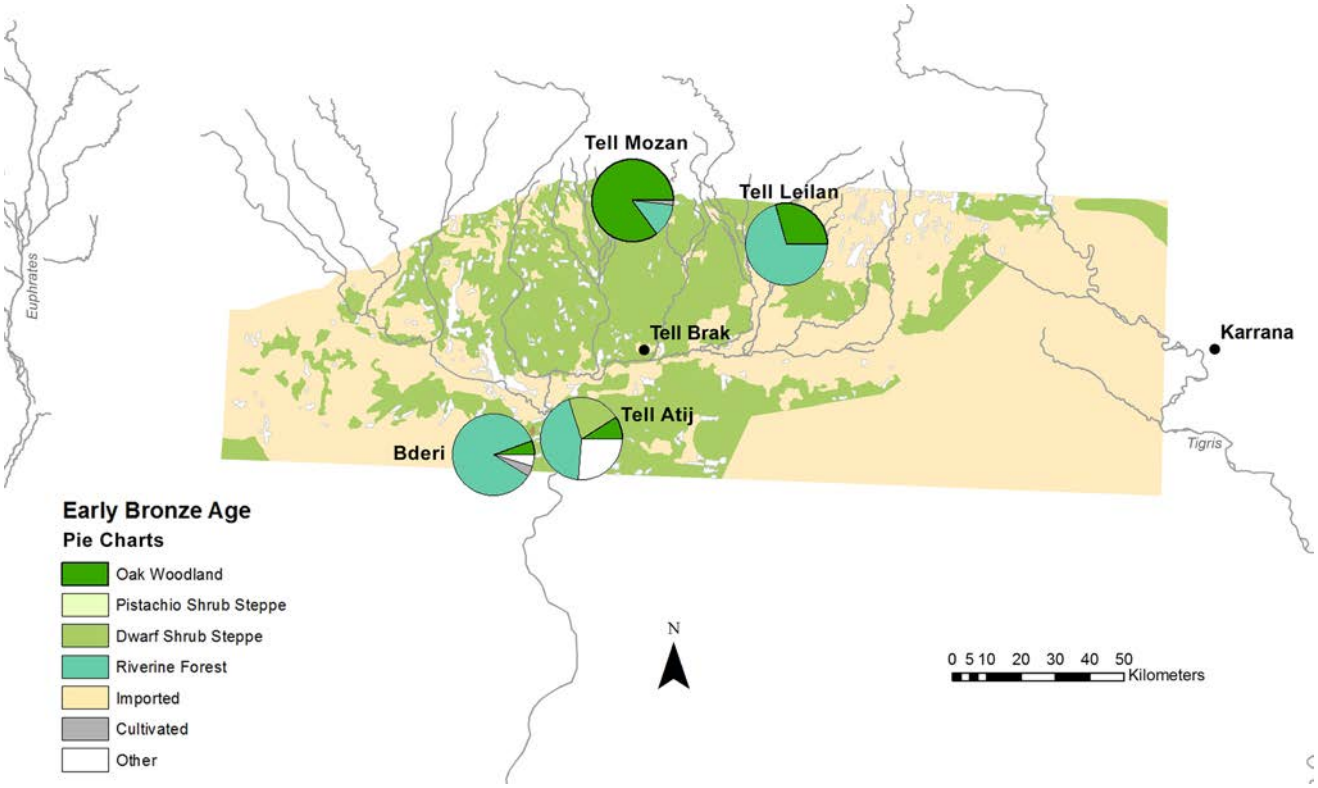

Fig. 1: Map of land cover reconstruction based on seed/grain data for the Ninevite V period (EJZ0-3a) with pie chart diagrams of the charcoal evidence for the third millennium BC. The seed/grain data shows areas of desert steppe (light brown) with large areas of shrub steppe (darker green).

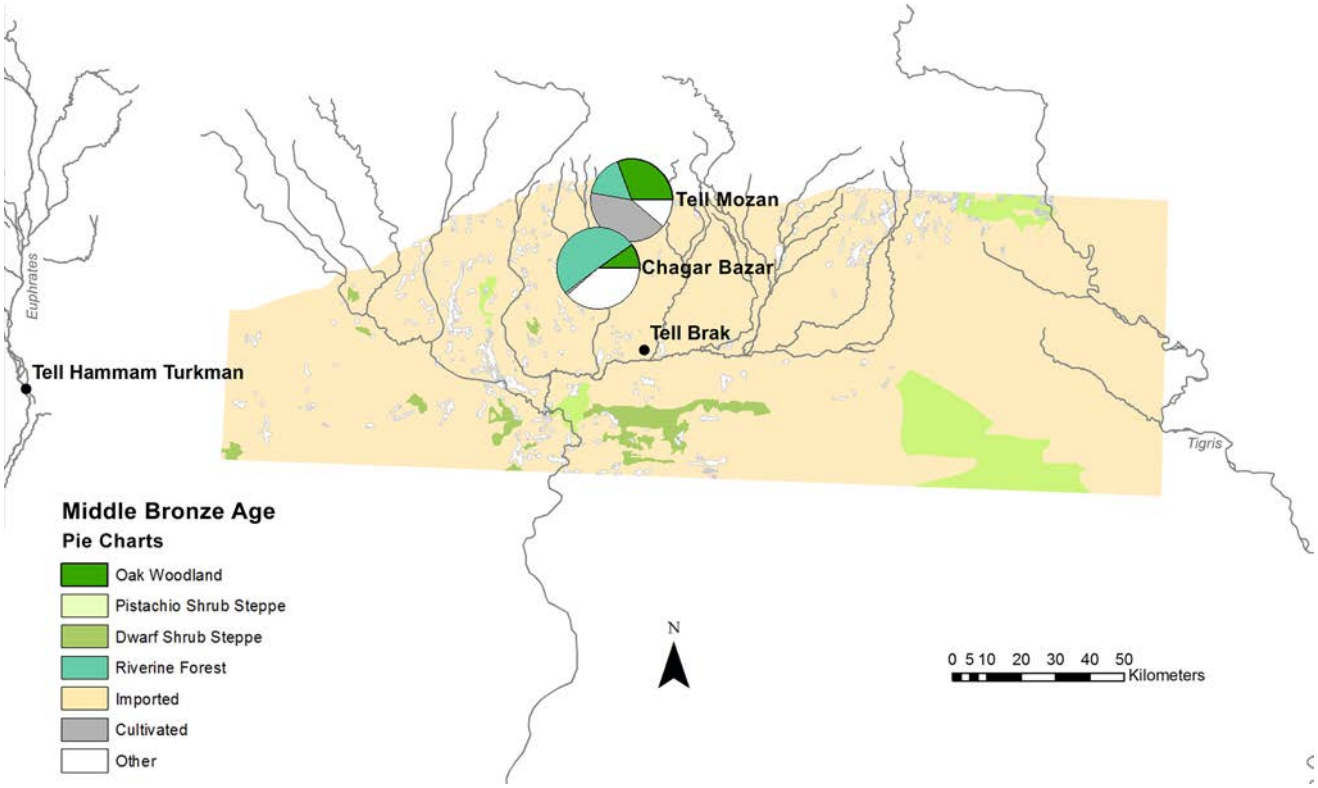

Fig. 2: Map of land cover reconstruction based on seed/grain data with pie chart diagrams of the charcoal evidence for the Middle Bronze Age. The map shows extensive areas of desert steppe (light brown) with small patches of mixed grass/shrub steppe (light green) and dry steppe (darker green).

Fig. 3: Map of land cover reconstruction based on seed/grain data for the Late Bronze Age. The landscape is mainly composed of shrub steppe (darker green) with small patches of mixed grass/shrub steppe (lighter green) and desert steppe (light brown).

indications for a decrease of the oak woodland in the Middle Bronze Age.

Vegetation in the Middle Euphrates region

Anthracological data show a strong signature of the Euphrates River amongst the charcoal assemblages from the different sites (Fig. 4). Riverine vegetation is present at Middle Euphrates sites and dominates in most of them. There is however a clear north-south gradient in the vegetation, that correlates with the rainfall gradient. More precisely, sites in the northern, i.e., moister part of the Middle Euphrates region overall have a larger proportion of oak woodland. This is especially the case for sites in Turkey, like for example Horum Höyük and Tilbeshar, but also Jerablus just across the border, in the phase 2650-2300 BC. On the contrary in the southern Middle Euphrates, open oak woodland is mostly not or hardly present (e.g., at Emar). An exception forms LBA Tell Hadidi, where 31% of the charcoal identified belonged to oak woodland. This large proportion of oak there however may be due to import of oak since the context anthracologically investigated there was the Tablet Building which might have been a rich household (Zarnkow et al. 2006). Also, the samples from LBA Tell Bazi were not domestic and more precisely derive from temple contexts, that typically include imported woods (ca. 9% in this case, mostly pine and some cedar as well). However, besides those imported taxa, most of the charcoal there likely derive from the local vegetation.

Besides the intra-period gradient, there are also diachronic changes visible in the vegetation groups that may reflect local climatic change: in the phase 3100-2700 BC open oak woodland was present, though in very small proportion, as far south as Abd (2.8%). Also, in the phase 2700-2000 BC oak was present in larger proportion at Jerablus (across the Turkish border). From the phase 2000-1600 BC oak was clearly less present just across the Turkish border (only about 2 %) and hardly present in the southern Middle Euphrates (e.g., 0% in Emar and 0.4% in Hadidi). From 1600-1200 BC there is again somewhat more oak at a site near the today Turkish border (about 14% at Shioukh Fawqani).

Movement across the Region during the Third to Second Millennium B.C.

The archaeological evidence for movement and routes in Mesopotamia are hollow ways and, within settlements, roads. Hollow ways are linear features typically 70-120 meters wide and can be kilometers long (Ur 2010b, 2003).

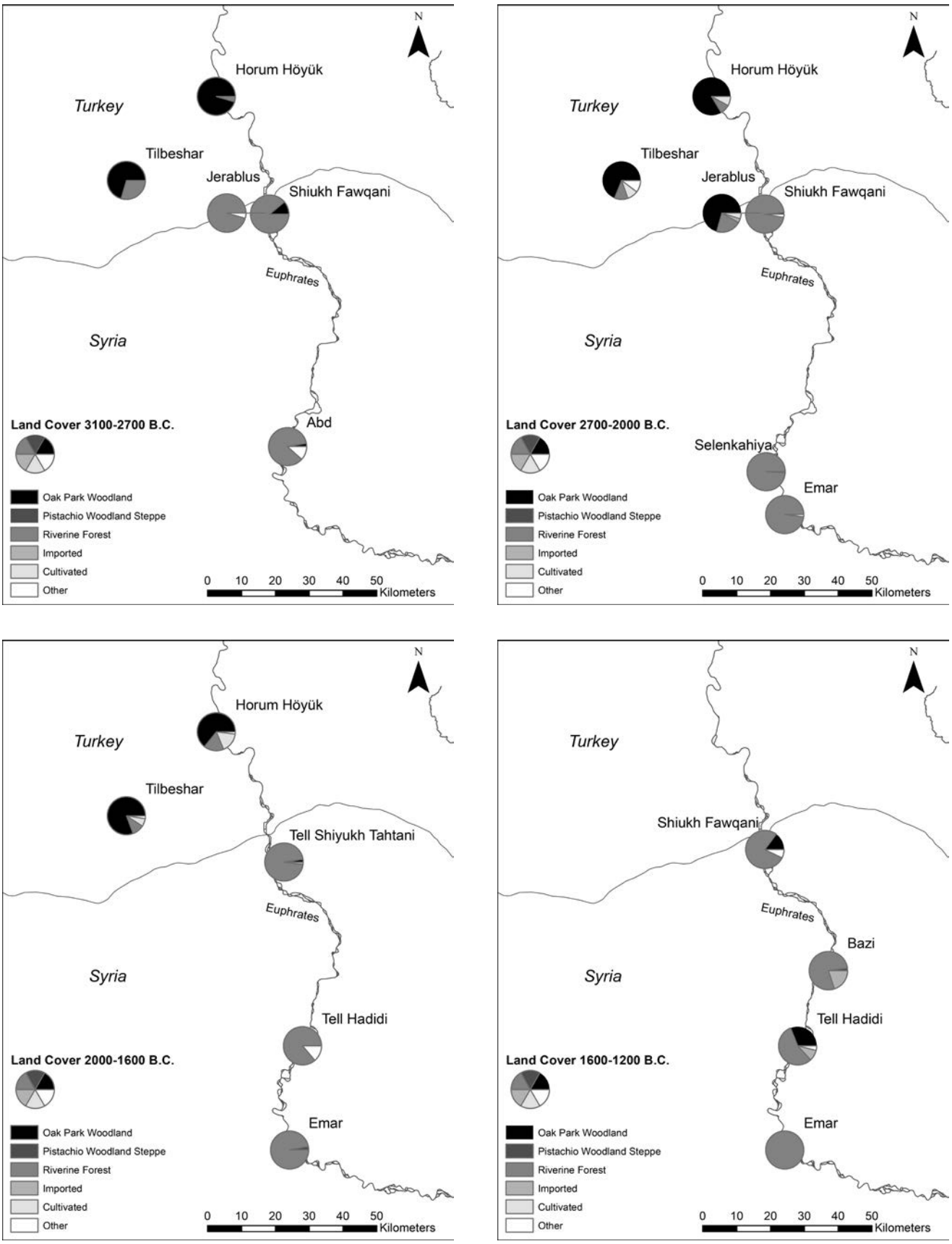

Fig. 4. Charcoal summary diagrams of charcoal percentages for the different vegetation groups along the Middle Euphrates for the different periods: a) 3100-2700 BC, b) 2700-2000 BC, c) 2000-1600 BC, d) 1600-1200 BC.

They are formed by erosion from regular traction by people and animals (Wilkinson *et al*. 2010). In the Middle Euphrates region, less than 10 segments of hollow ways have been recorded (see Wilkinson 2004, 81-82, fig. 5.1). Only three hollow ways were excavated (Wilkinson *et al*. 2010), but the periodisation of the sites they are associated with suggests they date to at least the Early Bronze Age. The majority of known hollow ways in northern Mesopotamia are located more than 100 km to the east in the North Jazira (Fig. 5). Of course, waterways formed an important part of the travel network in Mesopotamia, however, it is unclear how navigable the Euphrates would have been for boat traffic north of Hit, although it remains entirely possible that travellers would have followed alongside the Euphrates (Kaizer 2017, 84). Without much archaeological evidence for routes across the region, discussion is limited to evidence from historical texts, which first appear in the late third millennium BC. Unfortunately, while the texts from the late third millennium B.C., especially from Ebla and Tell Beydar, do sometimes refer to travel, itineraries and other documents containing information about the courses of routes and movement do not appear until the second millennium BC.

The most well-known journey across northern Mesopotamia during the early second millennium BC is the Old Assyrian caravan route travelled by merchants and their laden donkeys between Assur and Kanesh/Kültepe (Dercksen 2004; Larsen 1967). However, numerous routes between Northern Mesopotamia and Anatolia have been studied and mapped across the region based on contemporary itineraries, primarily from archives found at Kanesh/Kültepe (e.g., Larsen 1967; Barjamovic 2011, 2008) and, earlier, from tablets describing the "Road to Emar" itinerary across the region (Hallo 1964; Goetze 1953; see in detail Ziegler, Otto & Fink this volume). These itineraries, shown in Fig. 6, follow major rivers in places. Away from the rivers, a simple corridor analysis based only on slope between Assur and Kanesh/Kültepe helps to illustrate that a preference for flatter routes may have played a certain role in the routes people took during the second millennium BC, especially in the western portion of the map (Fig. 7). Slope alone, however, would predict a more southerly east-west route across northern Mesopotamia (see Fig. 7, dark area) than is attested in the written documentation.

Archaeological evidence is limited. Hollow ways are well-documented across the North Jazira, including the Upper Khabur Basin and probably had their major use in the third millennium BC (Wilkinson *et al*. 2010; Ur 2010a, 2010b). More than 6000 segments have been mapped

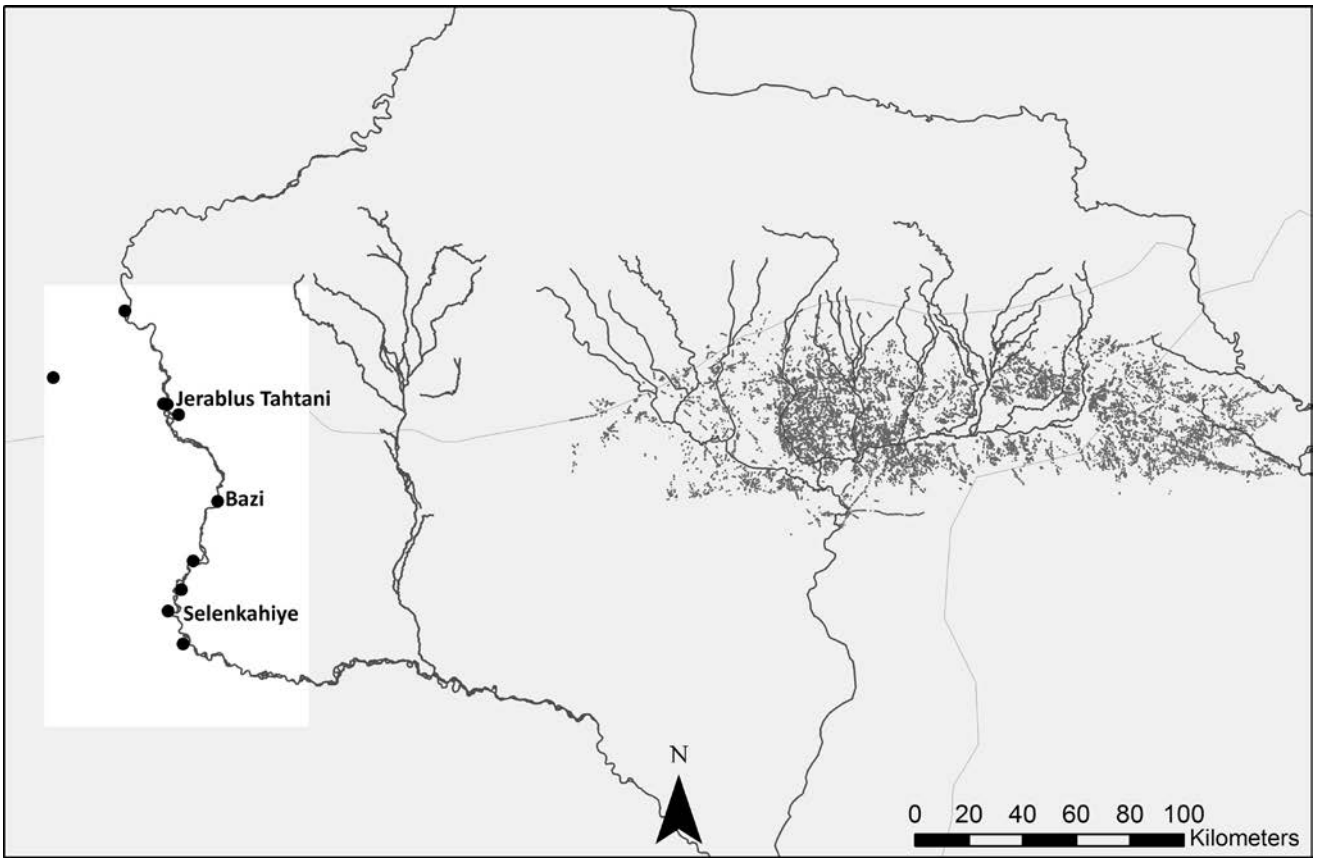

Fig. 5: Map showing the spatial relationship between the Euphrates valley area (white box) and known hollow ways of the North Jazira (Ur 2010b, 2003).

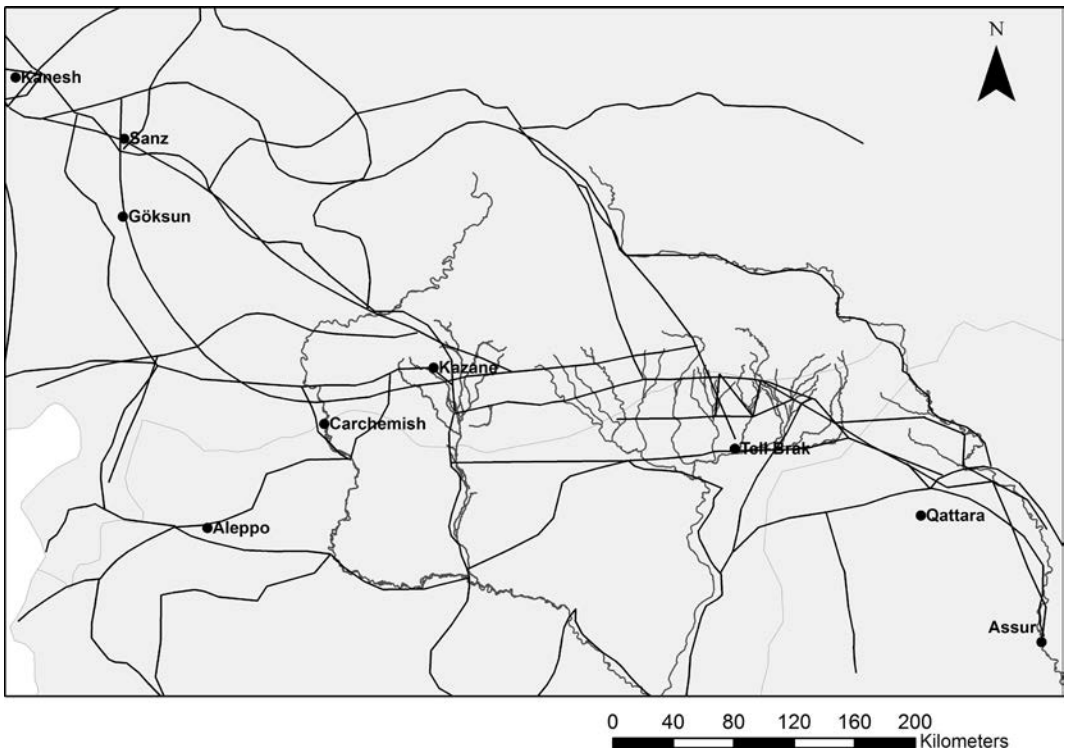

Fig. 6. Map with schematic rendering of supposed early second millennium BC caravan routes, based on Barjamovic (2011, 2008) and Hallo (1964).

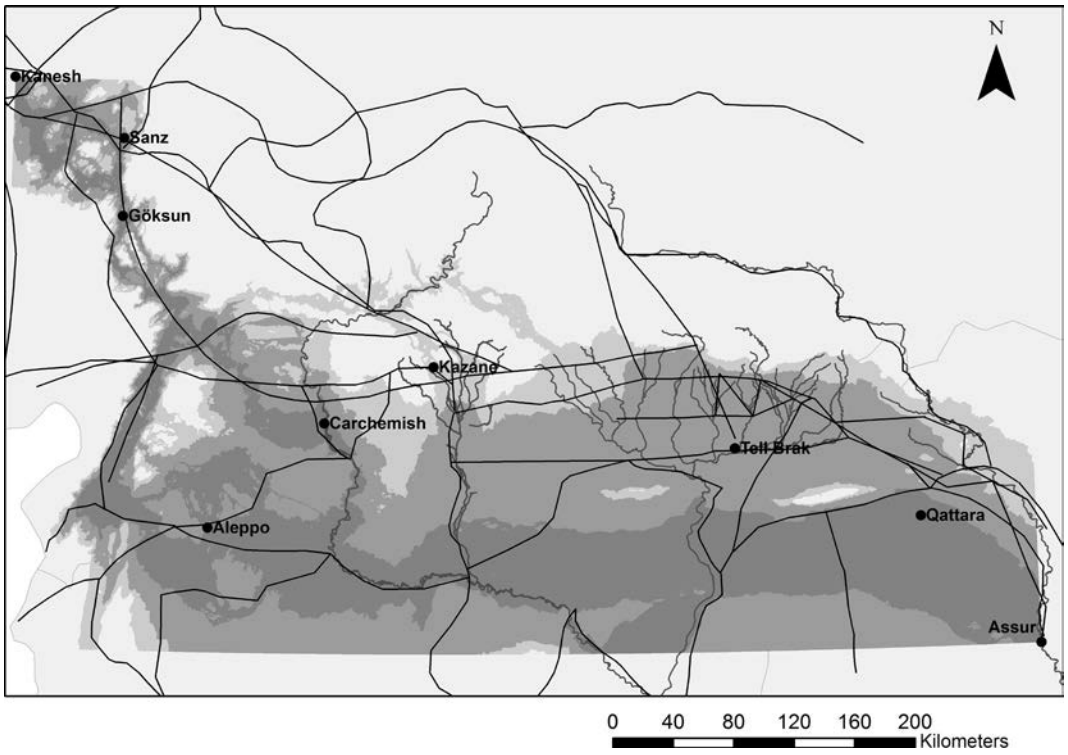

Fig. 7. Corridor analysis of the region underneath early second millennium BC caravan routes, based on Barjamovic (2011, 2008) and Hallo (1964). The darker shaded areas are less sloped than lighter shaded areas. That the darkest corridor occurs further south than historically documented routes, demonstrates that other variables besides slope were important to travellers.

across the North Jazira primarily using Corona satellite imagery (Ur 2010a, 2010b). Geoarchaeological, morphological, and textual evidence support the interpretation that these features were routes leading from settlements to agricultural fields, from settlements out to pasture, and some long-distance routes connecting sites (Wilkinson *et al*. 2010; Wilkinson 2003). The hollow ways evidence at least one contiguous east-west route through the region located north of Tell Brak and Tell Hamoukar, which may have been in use during the third as well as much of the second millennium B.C. when multiple sites situated along the route were occupied (de Gruchy 2017; Ur 2010a, 2010b; Ristvet 2005, figs. 4.2, 4.3, 4.4, 4.7, 5.2, 5.3, 5.6). Beyond the North Jazira, however, there is limited evidence of hollow ways and almost no documentation (for exceptions besides Wilkinson 2004, see Casana 2013 and Altaweel & Hauser 2004).

One possible reason for this relative lack of evidence is that travel west of the Euphrates may have taken place on routes that have continued to be used over time, as has been documented in southern England (Hoskins 1955, 236-237) and observed by Ellen Churchill Semple (1919) in Northern Mesopotamia. These missing roads could be hidden in the landscape as modern paved roads. Recent diachronic studies have evidenced that some of the hollow ways in the North Jazira have become modern, paved roads since the late 1960s (de Gruchy forthcoming; de Gruchy & Cunliffe 2020).

Discussion: Considering Land Cover in the Study of Past Mobility

As shown above, segments of 2nd millennium BC routes are historically documented to partially follow the Euphrates, along sections east of Aleppo and in the vicinity of Carchemish (fig. 7). Interestingly, this means it was likely located in the zone with densest woody vegetation (see above and additional information on the density of the vegetation in Deckers 2016b), but also other zones of the study area were traversed that were likely covered by shrub to desert steppe. In case of the presence of hollow ways it is thought that people and animals destroyed the natural vegetation on those tracks and caused a depression in the landscape (sunken lane) by repeatedly following the same way out of the settlement due to the occurrence of enclosed land on both sides of such tracks. It is of note that a lot of the Upper Khabur Basin hollow ways are actually quite wide and resemble droveways (Wilkinson *et al*. 2010).

While land cover is an important factor to consider when examining human movement (past or present), the means by which to do so is a grossly understudied area of people movement research within academia.

Terrain coefficients are relative values that quantify for a computer the relative difficulty of, for example, walking across a surface of sand versus a dirt path. The best quality terrain coefficients are based on human experiments with less than 25 subjects (de Gruchy *et al*. 2017a; Pandolf *et al*. 1977; Soule & Goldman 1972; Giovani & Goldman 1971). Of these, all of the energy-based terrain coefficients are for American terrain types and are derived from study populations of healthy male subjects with average ages of 21 or 22 (Pandolf *et al*. 1977; Soule & Goldman 1972; Giovani & Goldman 1971), while the time- or velocity-based terrain coefficients are based on British terrain types derived from a mix of female and male subjects divided into two age categories: 20-35 and 26-50 (de Gruchy *et al*. 2017a). At this time, for much of the world, including Mesopotamia, terrain coefficients must be estimated based on these limited values. Furthermore, these terrain coefficients are only for pedestrians walking, not pedestrians walking with a pack animal, not people riding horses or donkeys, not people punting a boat or rowing a boat or sailing a boat. Although a paper on camel movement provides an important development (Manière *et al*. 2021). Lastly, but importantly, despite the known presence of conditions like arthritis, rickets, and polio in past populations, there are no terrain coefficients quantifying the effects of such conditions that can cause skeletal changes and impact joints.

Additional study is also required on the impact of slope on people movement. Two of the most common formulas—Tobler's Hiking Function and Naismith's Rule—are both based on sample populations of one extremely fit male. Tobler's Hiking Function is based on data from Imhopf who mapped the Alps at a time when such work required physically traversing them, and Naismith's Rule is based on Naismith's own hillwalking and mountaineering (Naismith is also known as the founder of the Scottish Mountaineering Society). Nonetheless, these are the best formulas, because others like Bell & Lock (2000) are based on intuition rather than any data of human movement. A statistical sample of zero to one is not representative of a population the size of all humans past and present: male and female, all ages, with and without physical or mental conditions that affect mobility.

Outside of academia, people movement firms and departments make use of dedicated software like Legion—considered industry standard, equivalent to ESRI for GIS. The formulas and coefficients behind the buttons in proprietary pedestrian modelling software, such as Legion, are based on years of data gathered, at least in part, from street cameras and mobile phone data to generate accurate models that can be reliably used for designing building evacu-

ation routes, tube stations, and managing crowds at large events like a football game or the Olympics. Unlike ESRI, however, proprietary pedestrian modelling software does not make their formulas public. Furthermore, pedestrian modelling software is primarily designed for modelling people movement within relatively small, enclosed spaces, not across entire regions like Northern Mesopotamia.

It also remains to be established the frequency and volume of traffic that must take place along a route for a hollow way to form in the Near East. Settlement patterns indicate some routes attested by hollow ways were in use as early as the fourth millennium BC (de Gruchy 2017; Ur 2010a), but whether there could have been sufficient traffic to prevent vegetation growth and cause erosion is unknown. There is, however, historical evidence that some routes in Mesopotamia did experience decline and disuse, causing vegetation re-growth. For example, a text from the first millennium BC describes: 'At that time, the old-time road for going to Babylon, the cult-center of Marduk, the Enlil of the gods, was not open; and the track was unsuitable for travel. The country had become desert, where passage had long since become very difficult. The way was choked and without paths. It was impossible to go where thorns, thistles, and scrub brush had taken over' (translation in Brinkman 1995, 26-27).

Conclusion and outreach

Understanding the plants and land cover that existed in the environment beyond sites and agricultural fields is important for understanding the past. So many hypotheses about the past are based on water availability, species diversity, and environmental conditions. For studies about past people movement, the importance of land cover is more direct: it plays a major role in assessing how easy or how fast it would be for a person to cross a space. The development of methods for spatially reconstructing, or mapping, land cover allows researchers to 'see' the surrounding environment with more detail than ever before; but a lot of work remains to create these spatial reconstructions. Both authors of this chapter and others on the ERC-funded Climate, Landscape, Settlement and Society (CLaSS) Project have been working together to fill in some of the existing gaps to facilitate land cover reconstructions for large areas of the Near East over several thousand years. Nonetheless, the work required to understand the environment over the full history of humanity, even just in the Near East, will take much more than a single project to resolve. This is an enormous research gap.

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Appendix Tables: Charcoal results from Upper Khabur Basin and Middle Euphrates sites (AF= absolute frequencies – W= weight in grams)

	Mozan		Leilan	Bderi	Chagar Bazar	Halaf	Tell Atij
	2600-2000 BC	2000-1700 BC	2300-2200 BC	2900-2350 BC	1900-1600 BC	1100-330 BC	2900-2600BC
	AF	AF	AF	AF	AF	AF	W
Acer sp.				1			
Cedrus sp.	2						
Chenopodiaceae	52			14	1	1	
Conifer sp.	4				1		
Cupressus sp.	2						
Eleagnus angustifolia				2			
Ficus carica	76	13		19	2		
Fraxinus sp.	313	14	155	170	15	45	42
Hammada sp.							2474
Juniperus sp.	6						
Lycium sp.				4			
Maloideae					1	2	
Monocotyledon	603	49	4	10	1	24	53
Morus alba				43			
Noaea mucronata							525
Olea europaea		474		1		1	
Phoenix sp.				5		2	
Phragmites autralis				57		1	
Pinus brutia/halepensis	10	85			36	181	
Pistacia atlantica	20	1				4	
Pistacia sp. not *atlantica*						29	
Pistacia sp.			27	4		10	
Platanus orientalis	76	43		5			286
Platanus/Fagus sp.					1	1	
Poaceae							
Pomoideae	47	35	6	12			
Prosopis farcta					20		3662
Prunus sp.	3						
Prunus dulcis			4		6	43	
Quercus sp. deciduous	6019	332	79	83	8	156	1255
Quercus sp. evergreen						1	
Quercus sp.	403		1		3	117	
Rhamnus sp.				1			
Salix/Populus sp.	323	125	83	1040	53	464	5396
Tamarix sp.	1	0		286	16	1	257
Ulmus sp.	91	16	47	37	7	15	
Vitis vinifera	2	14	1	6		16	
Zygophyllum sp.				1			
indet. with lots of small Dicotyledon twigs					12	190	
Sum	6995	651	407	1801	183	1304	13950
	frags	frags	frags	frags	frags	frags	gr

	Horum Höyük			Tilbesar			Jerablus		Shiukh Fawqani			Tell ShiyukhTahtani	Bazi	Hadidi		Abd	Selenkahiye	Emar		
	3100-2650 BC	2300-2000 BC	2000-1700 BC	2900-2650 BC	2450-2100 BC	1800-1600 BC	2900-2650 BC	2650-2300 BC	3100-2900 BC	2450-2300 BC	1400-1200 BC	2000-1600 BC	1600-1350 BC	2000-1550 BC	1550-1350 BC	3100-2650 BC	2450-2000 BC	2450-2100 BC	2000-1600 BC	1600-1200 BC
	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	W	W	AF	W	AF	AF	AF
Acer sp.			1					1												
Alnus sp.			3		8	2			8	11	68							6		
Carpinus sp.																	1,16			
Cedrus sp.								14	1				2	0,14	69			8		1
Chenopodiaceae			2	2	1								1			1		7		1
Clematis sp.								1												
Conifer sp.													7				0,15	1		9
Cupressus sp.																		2		
Ficus carica			25			1	8	26					3					2		8
Fabaceae								1	9	2										
Fraxinus sp.	3	8	227	305	132	33		105	95	2	69	4	19	4,52	4,11		0,43	4		19
Juglans sp.							70													
Juniperus sp.			3	2	21			4	2		3									
Lycium sp.													3			13		20	39	18
Monocotyledon					2		8	29								2		317	6	12
Olea europaea		14	451	4	108	29		14										3		
Paliurus spina-christi			1	2					2	2										
Phoenix sp.								45												
Phragmites australis		1	1	29	13	1			59	6	67							1		38
Pinus brutia/halepensis		1	52	9	86	14				11	80	40	330				6,29	1		14
Pinus nigra/sylvestris			2	6		1		22	6											
Pistacia atlantica	7	6	9	12	35	31		16	3				1							
Pistacia lentiscus													17							
Pistacia sp.								5										5	19	
Platanus orientalis		2	87	7	12	9		4	28	6	16							8		
Platanus/Fagus sp.								3					11							
Pomoideae	1		23	36	27	4			6		2								1	
Prosopis farcta													3			124				
Prunus sp.				143	11				6					0,5	232					4
Prunus dulcis		3	10	12	30	3		7					6							
Quercus sp. deciduous	329	138	1783	856	961	405	1	95	59	1	159	50	6	0,75	0,11	18	0,12	8		
Quercus sp. evergreen														39	20		1,35			1
Quercus sp.								7					2	0,14	8,41			3		
Rhamnus sp.					1	1														
Salix/Populus sp.	11	4	129	59	21	7	810	1510	284	283	652	1742	831	180	312	905	507	17504	1632	5275
Tamarix sp.	1		12		5	3	1625	158	217	5	3	118	424	56	87	30	105	673	393	549
Ulmus sp.	1		27	48	3	1			13	58		132	21	4,84	15		0,2	2	1	612
Vitis vinifera			7	6	28	6		10					1							1
Ziziphus sp.																		2		
Sum	**353**	**177**	**2855**	**1538**	**1505**	**551**	**2522**	**2077**	**798**	**387**	**1119**	**2086**	**1688**	**286**	**748**	**1093**	**622**	**18551**	**2091**	**6543**

De l'influence des conditions météorologiques sur les communications en Haute Mésopotamie

Hervé Reculeau*

Marchands avec leurs caravanes, messagers avec leur escorte, nomades avec leurs troupeaux, armées en campagne, mais aussi, de façon plus ponctuelle, groupes de déportés et voyageurs occasionnels : nombreuses furent les personnes à emprunter les routes de Haute Mésopotamie aux deuxième et premier millénaires av. n.è., que ce soit de façon ponctuelle ou parce que l'itinérance faisait partie intégrante de leur mode de vie. Les études sur ces différents groupes sociaux sont nombreuses, et il n'est pas question de les répéter ici. On sait que leur mobilité était contrôlée, voire limitée, par les autorités politiques, qui gardaient jalousement les principaux points d'entrée de leur royaume – même si certains groupes comme les marchands et les nomades jouissaient de sauf-conduits statutaires, qui pouvaient à l'occasion être contredits par les rois[1]. Un autre facteur, naturel cette fois, jouait un rôle limitant sur les déplacements en Haute Mésopotamie : les conditions environnementales, et plus particulièrement les aléas climatiques et leurs conséquences[2], qui pouvaient rendre les routes difficiles d'accès (ou à tout le moins inconfortables) à certaines périodes de l'année.

Comme souvent avec la documentation cunéiforme, nous ne possédons guère de renseignements sur les conditions normales de circulation, pour lesquelles il n'était pas nécessaire de faire un rapport au roi et qui ne méritaient pas d'être mentionnées dans les inscriptions commémoratives. Inversement, les situations extraordinaires pouvaient occasionnellement faire l'objet d'une lettre, ou être célébrées au même titre que les autres épreuves dont avait su triompher le souverain. S'il faut avoir conscience du biais introduit par nos sources, il me semble que l'étude des conditions anormales de circulation, telles qu'elles ressortent des textes, permet de dresser en creux le portait de ce qui était perçu comme des conditions propices aux voyages. Après une esquisse du climat (passé et présent) de la région, je m'attacherai donc à présenter les données des textes cunéiformes mentionnant l'impact de la météorologie sur la circulation, en commençant par l'hiver (qui est de loin la saison la mieux documentée), suivi de l'été et des deux saisons de transition (printemps et autiomne). Se dessine alors l'image d'une année météorologique divisée entre saisons favorables aux voyages (printemps et automne) et saisons défavorables (été et hiver).

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1 Charpin 2004a et 2010 : 115–125.

2 Les documents cunéiformes n'ont guère laissé d'indications sur la façon dont la nature du terrain pouvait entraver les communications (Di Filippo 2016 : 458), à l'exception de mentions stéréotypées dans les annales des rois assyriens concernant les difficultés de circulation en terrain montagneux ou désertiques (qui se trouvent hors du cadre géographique de la présente étude). Plus que d'une description topographique, il s'agit là d'un *topos* littéraire, que l'on retrouve dans les textes épiques, et qui sert de marqueur idéologique de la guerre de conquête en pays lointain (Favaro 2007 : 108-129). Il est remarquable que le motif se retrouve dans *l'Épopée de Zimrî-Lîm* (i 34-36), où Zimrî-Lîm est décrit comme celui qui ouvre l'étroit passage d'une montagne non nommée, peut-être le mont Ebih. Même si le cadre géographique des combats relatés dans l'Épopée est la Haute Mésopotamie, il ne semble en tout cas pas que ce *topos* désigne ici cette région (Guichard 2014 : 33-34 ; 39-42).

Le climat en Haute Mésopotamie, aujourd'hui et hier

Les grandes variables climatiques susceptibles d'influer sur les communications sont au nombre de deux : les précipitations et les températures, en particulier dans leurs formes les plus extrêmes. La Haute Mésopotamie[3] se caractérise par un climat procédant de la dégradation progressive du climat méditerranéen de la côte occidentale syrienne vers un climat marqué par l'aridité et la continentalité[4], influencé localement par l'orographie, qui favorise la concentration des précipitations sur les régions montagneuses et accroît l'aridité des plaines intérieures[5]. La Djéziré peut ainsi être subdivisisée en trois zones climatiques, qui suivent un gradient nord-sud[6] : au nord et à l'est, la région du Taurus et du Zagros (> 600 mm de pluie annuelle) et de leur piémont (entre 350 et 600 mm de pluie annuelle) est de climat tempéré avec des étés chauds et secs et correspond à la zone de culture sous pluie assurée. Plus au sud, une vaste et fluctuante « zone marginale de culture »[7] englobe les espaces où la pluviométrie annuelle moyenne est comprise entre 200 et 300 mm, avec au moins une année sur trois où elle excède 250 mm. Elle présente un climat de type steppe aride, qui varie fortement d'une année sur l'autre du fait de la forte variabilité interannuelle des pluies. Plus au sud, enfin, on trouve la Basse Djéziré semi-désertique, dans laquelle la pluviométrie annuelle n'excède jamais 200 mm, et qui est impropre aux cultures sous pluie. Au sein même de cette dernière, on observe un gradient nord-sud vers l'aridité, marqué par des paliers rapides, et seuls les massifs des Djebels Sindjār et ʿAbd-el-Azīz sont assurés de précipitations régulières, du fait de l'altitude.

Dans cet espace où la continentalité génère un régime thermique beaucoup plus contrasté qu'en Syrie occidentale et des précipitations plus violentes[8], ce sont avant tout les épisodes extrêmes qui sont susceptibles d'entraver les mouvements des hommes et des animaux à différents moments de l'année. L'année climatique y est divisée en quatre saisons, deux extrêmes (hiver et été) et deux de transition (printemps et automne)[9]. Les hivers (de décembre à février) sont frais, à nuits froides et susceptibles de gelées, avec des températures moyennes de l'ordre de 10°C[10], mais qui tombent en janvier (mois le plus froid de l'année) autour de 5°C en Haute Djéziré et 6,2°C en Basse Djéziré[11]. Ils concentrent près de la moitié des précipitations annuelles, parfois sous forme de neige (surtout au nord-est) [12]. Le printemps (de mars à mai) voit une hausse progressive des températures moyennes (de 11°C en mars à 22,5°C en mai pour la Haute Djéziré, et de 13°C à 24°C en Basse Djéziré)[13], mais connaît encore des prcipitations (autour de 40% du total annuel), concentrées en épisodes (souvent orageux) de forte intensité, parfois accompagnés de grêle[14]. Seconde saison extrême avec l'hiver, l'été (de juin à août) est particulièrement aride. Ces trois mois dépourvus de la moindre précipitation sont au cœur d'une longue saison sèche pouvant s'étendre en année très sèche sur les saisons intermédiaires[15]. De mai à septembre, les maximales quotidiennes moyennes dépassent les 30°C et voisinent les 40°C en juillet (mois le plus chaud de l'année) et en août[16]. Débutant au printemps, les vents de sable deviennent un problème récurrent en Basse Djéziré pendant les mois d'été[17]. L'entrée dans l'automne (qui dure de septembre à novembre) se fait de façon assez graduelle, le mois de septembre apparaissant comme étant « en définitif le mois d'août avec une chaleur moins exprimée »[18] : le nombre de journées très chaudes (température supérieure à 35°C)

3 Pour une rapide présentation du cadre géographique, voir Ur 2010 : 5-9 et Reculeau 2011 : 9-26. Il faut noter ici que, du fait que les études récentes ont été réalisées à partir de données collectées dans le cadre des états-nations modernes, nous disposons de deux études très détaillées pour la partie syrienne de la région (Traboulsi 1981 et Kerbé 1987), mais qu'il n'existe à ma connaissance pas d'équivalent pour la partie irakienne (je n'ai pas accès à la base de données FAOCLIM 2 mentionnée par Di Filippo 2016 : 456, n. 26).

4 Traboulsi 1981.

5 Evans et al. 2004.

6 S'appuyant prioritairement sur la mise en valeur des terres, Wilkinson 2004 : 43 distingue deux sous-catégories dans la première zone (zones 1a et 1b), et trois zones distinctes (zones 2 à 4) que je regroupe ici dans la zone marginale de culture. Sa zone 5 correspond à la zone semi-désertique, c'est-à-dire la Basse Djéziré. Pour la classification des types de climat, voir Reculeau 2011 : 16–17 (s'appuyant sur Peel et al. 2007) et la carte TAVO A-X-4 (1985).

7 Wachholtz 1996, cité par Wilkinson 2004 : 43.

8 Traboulsi 1981 : 413-420.

9 La nette opposition entre les deux saisons extrêmes conduit souvent à adopter la vision simpliste d'une année climatique coupée en deux, avec un hiver couvrant les mois d'octobre à avril et un été de mai à septembre (par exemple Sanlaville 1990 : 5). Une telle vision, si elle est partiellement vraie en ce qui concerne les précipitations, conduit cependant à négliger les caractères propres des saisons intermédiaires, qui se distinguent des saisons extrêmes en particulier sur le plan thermique. Voir à ce sujet la très convaincante analyse de Kerbé 1987 : 182-210.

10 Sanlaville 1985 : 15.

11 Traboulsi 1981 : 417-419 et 439.

12 *Ibid.* : 414.

13 Kerbé 1987 : 323, tableau IX-58.

14 Traboulsi 1981 : 416 et 436.

15 Sanlaville 1985 : 20.

16 Traboulsi 1981 : 87, tableau 19.

17 Kerbé 1987 : 173-179.

18 *Ibid.* : 191.

diminue de moitié[19], mais les précipitations sont toujours quasiment inexistantes, tant en Haute qu'en Basse Djéziré, où la saison humide ne commence, selon les années qu'en octobre ou novembre. Les températures moyennes faiblissent dès septembre (autour de 25°C), avant de fléchir nettement en novembre (autour de 13°C)[20]. Les pluies d'automne sont plus rares en Djéziré qu'en Shamiyé (11% du total annuel contre 14-15% à Alep et Hama)[21], et la transition avec l'hiver y est nettement plus abrupte que celle avec l'été. Elle se marque par une plus grande instabilité des types de climat sur de courtes périodes et une aggravation des conditions météorologiques qui se traduisent, dès la fin du mois de novembre, par des « précipitations de type "averses diluviennes" et de[s] coups de froid »[22], qui font entrer la région de plain-pied dans l'hiver.

L'étude des conditions climatiques anciennes est un sujet complexe, qui est au cœur d'études nombreuses et partiellement contradictoires[23]. S'il semble établi que les conditions climatiques aux deuxième et premier millénaires av. n.è ne différaient pas substantiellement des actuelles[24], il n'en reste pas moins que des fluctuations de faible amplitude à l'échelle climatique se traduisent, dans les faits, par des changements relativements importants pour les communautés humaines de la région – non seulement en qui concerne les potentialités agricoles des différentes micro-régions, mais aussi, pour ce qui est du sujet de cet article, sur la façon dont les aléas météorologiques pouvaient affecter les conditions de circulation.

Les indicateurs paléoclimatiques de haute résolution provenant des grottes de Gol-e-Zard en Iran[25] et de Kuna Ba au Kurdistan Irakien[26] suggèrent qu'après quelque 200 à 250 ans d'hyper-aridité consécutifs à l'épisode de changement climatique rapide dit '4.2ka event' (ca. 2200 BCE), la Haute Mésopotamie a vu le retour de conditions plus humides au 20e siècle, suivies par 350-400 ans de conditions très volatiles marquées à la fois par une instabilité fréquente et une variabilité limitée des précipitations, sans épisode pluvial ou de sécheresse marqué identifiable. La situation change autour de 1550-1500 BCE, au moment de la transition entre bronze moyen et bronze récent, marquée par 100 à 150 ans de conditions nettement plus arides. À partir de 1300 BCE, le climat devient plus humide mais est à nouveau marqué par une forte instabilité. Si la pluviométrie apparaît plus soutenue que durant les cinq cents années précédentes, sans pour autant atteindre les niveaux connus durant les deux premiers siècles du millénaire. Cet épisode relativement humide est également marqué par une tendance chaotique mais nette à l'aridité de 1300 à 950 BCE.

D'après les données de la grotte de Kuna Ba, le climat de la Haute Mésopotamie au temps de l'empire néo-assyrien a connu deux phases distinctes : les premiers siècles du premier millénaire (entre environ 925 et 725 BCE) ont été plus humides que la moyenne historique dans la région, avec en particulier un épisode «mégapluvial» de 850 à 775 BCE, similaire en amplitude aux pics d'humidité des 20^{e} et 19^{e} siècles, mais plus soutenu et régulier. Un retour à la moyenne s'opère vers le milieu du 8^{e} siècle, et les 175 années comprises entre 675 et 500 BCE ont été marquées par l'un des épisodes les plus secs enregistré aux périodes historiques, qui a même été décrit comme une «méga-sécheresse» (Sinha *et al*. 2019, avec des limites chronologiques légèrement différentes).

La documentation épigraphique ne permet pas au spécialiste des textes d'apporter d'éléments décisifs concernant les éventuelles évolutions climatiques sur le long terme, mais elle contient un nombre important de mentions de phénomènes météorologiques offrant un aperçu ponctuel du climat aux époques anciennes. Deux périodes sont particulièrement bien représentées : l'époque amorrite, grâce essentiellement aux archives de Mari, et l'époque néo-assyrienne, grâces aux archives publiées dans le cadre des *SAA*. Les données, éparses et fragmentaires, doivent être recueillies dans nombre de lettres et de documents administratifs, et la synthèse que l'on peut tenter ne doit jamais perdre de vue que, ici comme ailleurs avec les textes antiques, ce qui est noté relève la plupart du temps non de l'ordinaire, mais de l'exceptionnel[27].

19 *Ibid*., tableau VI-28.

20 *Ibid*. : 324, tableau IX-58.

21 Traboulsi 1981 : 435.

22 *Ibid*. : 193.

23 On trouvera un aperçu récent des principales études paléo-environnementales pertinentes pour les périodes et régions au cœur de cette étude dans Wossink 2009 : 15-26 (avec une focalisation sur la fin du troisième millénaire av. n.è), Reculeau 2011 : 27-69 (centré sur le deuxième millénaire av. n.è.), et Dornauer 2016 : 56-59 et 69-75 (centré sur les périodes médio- et néo-assyriennes) et 2017.

24 Voir par exemple les remarques en ce sens de Kärger 2014 : 9, n. 1, Di Filippo 2016 : 456 et Dornauer 2016 : 84-85.

25 Carolin *et al*. 2018.

26 Sinha *et al*. 2019.

27 Pour un aperçu général des données climatiques contenues dans ces deux *corpora* voir, pour Mari, Durand 1990 : 103-111, et pour l'époque néo-assyrienne Dornauer 2017 : 83-84 (qui prend par ailleurs en compte divers « indicateurs indirects du climat » tels que la faune, la hauteur des crues, la date et la productivité des moissons, le début des campagnes militaires, etc.) Pour la pluie en général, voir Streck 2006-08, et pour la neige Streck 2009.

Les textes mariotes et néo-assyriens connaissent quatre termes pour désigner les saisons[28] en fonction de leurs traits majeurs : *kuṣṣum/kûṣum*, la saison du froid (l'hiver) ; *dîšum*, la saison de l'herbe nouvelle[29] (le printemps), *umšum* la saison de la chaleur (l'été) et *haraptum* (Mari) / *harpû* (NA), dont l'étymologie sur HRP, « être précoce », reste obscure (l'automne)[30]. Outre ces expressions, on rencontre de rares attestations d'autre termes pour désigner les saisons, comme *pân šatti*(*m*) « printemps » (lit. « début de l'année »), qui à ma connaissance n'est attesté à Mari que par ARM 27 108 mais dont l'usage est courant dans les textes assyriens, dès l'époque paléo-assyrienne[31] et plus encore à l'époque néo-assyrienne[32]. Le terme *takṣîâtu* « hiver, saison froide » n'est pour l'heure attesté que par une occurrence néo-assyrienne[33] et est d'usage strictement littéraire à l'époque paléo-babylonienne[34].

L'hiver, une saison peu propice aux voyages

Des quatre saisons, c'est indéniablement l'hiver qui est le plus souvent mentionné dans les documents cunéiformes, particulièrement à l'aide du terme *kuṣṣum/kûṣum* dont il n'est pas toujours aisé de définir s'il s'agit d'une simple notation de la saison, ou s'il décrit plus précisément le froid comme phénomène météorologique[35]. On trouve par ailleurs mention des précipitations typiques de la saison, comme la pluie, la neige et le verglas, qui pouvaient représenter une gêne certaine pour les voyageurs. De ce fait, les documents cunéiformes indiquent clairement que l'hiver représentait une saison où l'on s'abstenait, autant que faire se pouvait, d'entreprendre des voyages ou des expéditions militaires, surtout s'ils devaient mener en terrain inhospitalier comme les montagnes situées au nord et à l'est de la Haute Mésopotamie. Il semble ainsi que l'on se soit gardé de tout déplacement non vital[36], et que les voyages entrepris par la force des choses en cette saison pouvaient se révéler relativement périlleux.

Le froid et les intempéries, un frein aux campagnes et aux voyages

Les préventions contre les voyages hivernaux sont bien documentées pour les cas où le trajet imposait de traverser les contreforts montagneux du Taurus et du Zagros, où les rigueurs de la saison froide étaient sans commune mesure avec celles rencontrées en Haute Mésopotamie. On trouve ainsi plusieurs mentions de voyages à effectuer « avant l'hiver » (*lâma kuṣṣim*) dans la correspondence des marchands paléo-assyriens en route vers ou depuis la Cappadoce[37]. Si l'on peut supposer que c'était principalement la partie anatolienne du trajet qui posait problème, on note cependant qu'une telle prévention se retrouve pour des « Akkadiens » (donc des gens de Babylonie du nord) qui transportaient des textiles à Aššur[38]. La tournure du texte ne permet tou-

28 Pour un aperçu général sur les saisons dans la documentation cunéiforme, voir Landsberger 1949.

29 Durand 1990 : 112 n. 35.

30 Durand 1988 : 114, n. c) au texte 14, avec Cadelli 1994 : 165, n. b) au texte 88. Le terme a été enregistré par le CDA : 107a, mais pas par les dictionnaires de référence qui ne connaissent que la variante assyrienne *harpû*, traduit « [Früh]-Herbst » par AHw : 326b et, de façon erronnée, « (early)harvest, summer » par CAD H : 106a. Une traduction de *harpûtu* par « printemps » a par ailleurs été proposée par Luukko / Van Buylaere 2002 : 81, mais les parallèles suggèrent, s'il faut bien retrouver ici une saison, qu'il s'agit de l'automne – ce qui correspond d'ailleurs mieux au contexte, puisqu'il est qestion de travaux qui doivent être accomplis à cette date en SAA 16 : (r. 18') LUGAL *be-lí ú-da-a a-ki-i* (19') *i-har-pu-u-te an-ni-e* (20') *dul-lu gab-bu i-né-pa-áš-u-ni* « Le roi mon seigneur sait que le travail tout entier sera accompli cet *automne*. » La documentation de Mari montre que les saisons préférentielles pour la réalisation des divers travaux d'extérieur étaient l'été et l'automne ; Reculeau 2018 : 292-302). Les dictionnaires ne connaissent pour ce terme (dont c'est ici la seule attestation connue) que le sens de « moment précoce » (AHw : 326b ; CAD H : 106b ; AEAD : 35b).

31 Références *apud* CAD P : 87a, *s. v.* **panu A1g 2'**.

32 Landsberger 1949 : 257-259 et 292-293.

33 En SAA 15 156, une lettre babylonienne à Sargon II.

34 CAD T : 87a, *s. v.* **takṣâtu**.

35 CAD K, 594a, *s. v.* **kuṣṣu** (*kūṣu*) : « **1.** cold, frost, cold weather, **2.** cold season, winter ».

36 Cela exclut, a priori, les déplacements des messagers, dans la mesure où l'on ne saurait stopper le flux d'informations nécessaires à la survie du royaume pendant des mois — ce que confirme le fait que nous disposons de lettres réparties sur l'ensemble de l'année climatique.

37 Ex. gr. LAPO 19 98 (CCT 4 30a) : (31) *u$_4$-me-e ma-du*$^{!}$*-tim* (32) *a-ta-ša-áb a-na kà-ri-im* (33) *i-hi-id-ma : la-ma ku-*[*ṣí-im*] (34) *lá-tal-kam* « Maintenant, cela fait beaucoup de jours que je suis resté (coincé ici), ceci dit, j'ai l'intention de me rendre au *kârum* avant l'hiver. » ; LAPO 19 163 (CCT 4 29a) : (3) … *ki-ma* (4) *ù-nu-tum úṣ-a-ni* (5) TÚG.HI.A-*tí ša i-na pá-zu-ur-/tim* (6) *e-ru-bu-ni-ni* (7) *ú ma-l*[*a*] *i-na é-kál-lim* (8) *úṣ-ú*$^{!}$*-ni ṣú-ha-ru ù ku-n*[*i*]*-lim* (9) *ša áb-ri-im li-it-bu-/lu-nim* (10) *lá-ma ku-ús-*[*u*]*m* (11) *id-ni-nu* « Une fois les biens sortis (du palais), les serviteurs – 1 ou 2 (hommes) – d'Abrum doivent emporter les étoffes qui sont entrées en contrebande de même que toutes celles qui sont sorties du palais (dédouanées), et ce, avant que l'hiver ne soit trop dur. » (références additionnelles *apud* CAD K : 595a, *s. v.* **kuṣṣu 2a**).

38 LAPO 19 110 (VS 26 17) : (4) *a-šu-mì ší-im* TÚG *ša a-ki-dí-e* (5) *ša ta-áš-pu-ra-ni* (6) *iš-tù tù-uṣ-ú a-ki-dí-ú* (7) *a-na a-lim*^{ki} *ú-la e-ru-bu-nim* (8) *ma-sú-nu sá-hi-a-at-ma* (9) *šu-ma a-ku-ṣí im-ta-aq-tù-/nim-ma* (10) *ší-mu-um ša ba-la-ṭí-kà* (11) *i-ba-ší ni-ša-a-ma-ku-/um* (12) ⌜*ù*⌝ KÙ.BABBAR *i-ra-mì-ni-/ni* (13) *ni-ša-qal* KÙ.BABBAR *i-hi-/id-ma* (14) *šé-bi$_4$-lam* « En ce qui concerne l'achat d'étoffes akkadiennes à propos duquel tu m'as écrit, depuis que tu es parti, les Akkadiens

tefois pas d'exclure que, plus que les communications entre Babylonie et Assyrie, la crainte de l'hiver renvoie ici avant tout aux difficultés que les Assyriens pourraient avoir à expédier lesdits textiles jusqu'à Kaneš. Il est en tout cas remarquable qu'un texte au moins mentionne l'existence d'une route d'hiver entre Haute Mésopotamie et Cappadoce, ce qui suggère que certains marchands étaient prêts à braver les aléas climatiques[39].

Dans les textes de Mari, c'est avant tout en liaison avec des expéditions militaires que l'on rencontre des mentions de l'arrivée du froid (*kuṣṣum*). Sans surprise, c'est hors de Haute Mésopotamie à proprement parler, dans les montagnes du Zagros, que le mauvais temps hivernal posait le plus de difficultés, comme le rappelle, dans deux lettres retrouvées au tell Shemshara, Samsî-Addu au moment de son expédition de l'hiver d'Aššur-malik (1780 BCE)[40] contre le roi d'Ahazum[41]. Cependant, il est clair que la gêne causée par l'hiver aux opérations militaires ne se limitait pas aux régions de montagne, et la règle voulait que l'on mette fin aux opérations avant la mauvaise saison, pendant laquelle l'armée était normalement démobilisée. Plusieurs lettres décrivant des actions militaires ayant pour cadre la Djézireré vont dans ce sens[42], et l'on retrouve la même idée pour la Babylonie dans une lettre du général Ibâl-pî-El datée de la fin de la campagne contre l'Élam, en ZL 11 (1764 BCE)[43], dans laquelle on le voit requérir sur ordre de Zimrî-Lîm que Hammu-rabi libère les troupes mariotes envoyées au titre de l'alliance[44].

Hors contexte militaire et sur le Bas Habur, une lettre d'Ilušu-naṣir à Zimrî-Lîm indique qu'avec l'arrivée de l'hiver, le bac permettant la traversée de la rivière ne peut fonctionner[45]. Il semble cependant que cela ait avant tout été dû au fait que le gouverneur n'avait pas reçu le bitume et l'asphalte nécessaires à son imperméabilisation (l. 6-9), plutôt qu'aux conditions climatiques proprement dites. D'une manière générale, on note la même prévention contre les voyages hivernaux dans plusieurs lettres de Mari, dont l'une (encore inédite) indique de façon explicite que la saison n'est pas propice aux voyages, et que les auteurs attendront le printemps (*dîšum*) et le retour des beaux

n'ont pas pu venir à la Ville (= Aššur) : leur pays est troublé. S'ils arrivent avant l'hiver, et qu'il y a des possibilités d'achat avec des perspectives de bénéfice pour toi, alors nous t'en achèterons, et nous (les) payerons avec de l'argent nous appartenant. Veille (toutefois) à nous envoyer de l'argent. »

39 BIN 4 97 : (18) *lá ti-de$_8$-a ki-ma* (19) *ha-ra-an ku-ṣí-im* (20) *a-lu-ku* « Ne sais-tu pas que je prends la route d'hiver ? »

40 Charpin / Ziegler 2003 : 96-98 datent cette expédition, au plus tard, de la fin du mois vi* (janvier-février), ce qui situe ces deux lettres dans les mois précédents. L'étude de la corrélation fine entre les calendriers mariotes (que ce soit celui de Samsî-Addu, noté à l'aide de chiffres romains suivis d'un astérisque, ou celui de Zimrî-Lîm, noté à l'aide de chiffres romains simples) et notre calendrier reste, en grande partie, à écrire. Les équivalences données ici à titre indicatif partent du principe communément admis que le premier mois du calendrier de Zimrî-Lîm commençait avec l'équinoxe de printemps, mais il n'est guère possible de faire intervenir ici l'épineuse question des mois intercalaires. Voir pour de plus amples détails Charpin 1985 : 246-247.

41 ShA 1 1 : (45) *i-na-an-na* I[TI X+].KAM *an-nu-tim ka-a[ṣ-ṣú-ú]* (46) *ù qa-ti ú-ul ub-ba-a[l-šum]* (47) *iš-tu u$_4$-mi i-ṭi$_4$-bu ma-li* [*i*]-[*na*] *ma-a-ti-*[*šu*$^?$] (48) *e-pé-šu te-še-*[*em-me*] « À présent, c'est l'hiver pendant le[s$^?$] prochain[s$^?$] mois, et je ne peux mettre la main sur lui, mais dès que les jours seront meilleurs, tu entendras parler de tout ce que je ferai dans son pays ! » ; ShA 1 3 : (22) *ku-uṣ-ṣú-ma* ITI 2.KAM *an-nu-tim ka-ṣú-*[*tim*] (23) [*q*]*a-tam ú-ul ub-ba-al-*[*š*]*um* (24) [x (x)] [x]-*pa-ak-ka-šu*$^?$-[*ma*$^?$] (25) [*ki*]-[*i*] U$_4$ 1.KAM-[*ma*] (26) [*iš-tu u$_4$-m*]*u iṭ-ṭi-b*[*u*] (27) [*it-ti*] *ka-bi-it-ti ṣa-bi-im* (28) [*e-l*]*e-em-ma a-ša-al-*[*šu*] « C'est l'hiver, et ces deux mois-ci resteront froids : je ne pourrai pas mettre la main sur lui ! [...] Dès le premier des beaux jour, je monterai avec une grande armée et je lui demanderai des comptes ! »

42 ARM 28 58 : (12') *be-lí <a-na> a-wa-ti-ia li-qú-*[*ul*] (13') *ú la-ma ku-uṣ$_x$-ṣí-i*[*m*] (14') *li-ik-šu-*[*dam*] « [M]on seigneur doit prêter attention à mes paroles et arriver avant l'hiver. » ; ARM 28 104 : (27) *la-ma ku-uṣ-ṣí-im ap-pi-iš qa-*[*t*]*um ša-ah-na-at* (28) *ma-a-tam a-na qa-at be-lí-ia i nu-ma-a*[*l*]*-li* « Avant l'hiver, puisque les circonstances sont propices, nous livrerons le pays entre les mains de mon seigneur. » Voir encore le très explicite LAPO 16 441 (A.4687, Charpin 1993 : 180-182) : (1") [*i-nu-m*]*a ku-uṣ-ṣú i-ka-ša-du-nim* (2") [*mi-im-ma e-pé*]*-ša-am be-lí ú-ul i-le-i* « Lorsque les froids seront là, mon Seigneur ne pourra rien faire. »

43 Charpin / Ziegler 2003 : 231.

44 LAPO 17 586 (ARM 2 24$^+$) : (4) *ki-ma na-aš-pa-ar-ti be-lí-ia ša be-l*[*í a-na ṣe-ri-ia*] (5) *iš-ta-na-pa-ru um-ma-a-mi ha-am-mu-*[*ra-bi a-wa-tim*] *ṭà-ba-tim-ma* (6) *du-ub-bi-ib-ma ša la-ma ku-uṣ-ṣ*[*i-im wa-aš-šu-u*] *r* (7) *ṣa-bi-im e-pu-úš an-né-tim be-lí iš-*[*pu-ra-am*] (8) *i-na-an-na a-wa-tim ṭà-ba-tim-ma a-na ha-am-*[*mu-ra-bi aṣ-ba*]*-at* (9) *um-ma a-na-ku-ma iš-tu* LÚ.KÚR DINGIR-*lum ú-ha-li-qú ù u$_4$-mu ku-uṣ-ṣí*° (10) *ik-šu-du a-na mi-ni-im* ÌR.MEŠ *a-hi-ka ka-le-et* (11) *wu-e-ra-an-ni-ma lu-ut-ta-la-ak ù la-ma ku-uṣ-ṣí-im* (12) LÚ AGA.ÚS.MEŠ É-*sú li-ik-šu-ud* « Selon le message que mon seigneur ne cesse de m'envoyer, disant : "Presse de façon amicale Hammu-rabi et fais en sorte que l'armée soit libre de ses mouvements avant l'hiver" – voilà le message de mon Seigneur –, j'ai à l'heure actuelle entrepris Hammu-rabi sur un ton amical, lui disant : "Puisque Dieu a perdu l'ennemi et que les jours de froidure sont arrivés, pourquoi continues-tu à garder les serviteurs de ton frère ? Donne-moi mes instructions pour partir afin que les hommes de troupe puissent, avant le froid, regagner leur chez-eux." »

45 ARM 27 12 : (10) [*i-na-a*]*n-na ku-uṣ$_x$-ṣú ik-šu-du-nim ù* ^{giš}M[Á] *hu-up-pa-at* (11) [*šum-ma a-l*]*a-ak be-lí-ia i-ba-aš-*[*š*]*i* (12) [^{giš}MÁ *ne-bé-r*]*i*$^?$*-im ú-ul i-ba-aš-ši* « Maintenant l'hiver est arrivé, et le bateau est hors d'usage (11) (Si) le voyage de mon seigneur a lieu, (12) il n'y aura pas de bac. »

jours[46] pour envoyer à Mari le devin Zikrî-Addu[47]. À l'inverse, une lettre provenant d'Ilân-ṣurâ, dans le triangle du Habur[48], pourrait indiquer que l'on souhaitait qu'un personnage voyage « avant le *šurîpum* » (*ana šurîpim*)[49], terme qui signifie peut-être ici « l'hiver »[50], ou plus concrètement « la neige »[51].

On retrouve des considération similaires pour le trajet entre Alep et Mari dans une lettre de Hammu-rabi du Yamhad à Zimrî-Lîm. Dans ce cas précis, le fait que le voyageur putatif était un nourrisson semble avoir été la raison première de la prévention contre un voyage hivernal, même si la gêne occasionnée pour les animaux (chevaux et bœufs) et le reste de la caravane est aussi mentionnée[52]. Outre le froid (*kuṣṣum*), le roi d'Alep invoque ici les mystérieux *rusû*, que J.-M. Durand avait initialement proposé de comprendre comme de la boue[53], mais qu'il propose désormais être un type particulier de précipitations atmosphériques[54], lesquels apparaissent en conjonction avec la pluie dans une lettre datée de l'automne[55]. On note cependant que dans ce cas, à la différence du devin cité plus haut, les conditions hivernales ne posaient pas de problème particulier pour d'autres types de voyageurs, sans doute plus légèrement équipés – en l'occurrence un médecin envoyé par le roi d'Alep à son homologue de Karkemiš[56]. Il en va autrement de deux mariotes employés à Alahtum (Tell Atchana), qui ne peuvent faire le trajet jusqu'à Mari à cause de l'hiver (sans compter que l'un d'eux est malade, et qu'ils doivent s'occuper de leurs troupeaux), et ne viendront qu'au printemps (*dîšum*)[57]. Quelques années plus tôt, on trouve une idée similaire à propos d'un groupe d'ambassadeurs babyloniens, dont une lettre de Samsî-Addu nous aprend qu'ils avaient passé l'hiver au Yamhad et à Karkemiš, attendant ici encore le printemps pour reprendre le chemin de la Ba-

46 Pour l'expression *ûm itebbû-ma*, voir Durand 1988 : 36 (A.3946).

47 A.3946 (cité par Durand 1988 : 36) : *i-na-an-na ku-ṣú-um, ik-šu-dam a-la-kam, [a]-na ṣe-er be-lí-ni, ú-ul ni-le-i, di-šu-um i-la-kam-ma, u₄-um i-te-eb-bu-ma, [1]zi-ik-ri-[d]*IŠKUR, ÌR-*ka a-na ṣe-ri-ka, a-ša-ap-pa-ra-am-ma* « Maintenant le froid vient d'arriver et nous ne pouvons pas aller chez notre Seigneur. Lorsque le printemps sera là et que le moment *sera devenu* … j'enverrai chez toi Zikrî-Addu, ton serviteur. »

48 Ziegler / Langlois 2016 : 161-163.

49 ARM 26/2 349 : (4) *i-na pa-ni-tim [1]ha-ià-sú-ú-mu* (5) *[1]hu-zi-ra-an a-na* É-*ti-[šu]* (6) *a-na šu-ri-pí-im ir-ṭú-ub <šu-ru-ba-am>* (7) *um-ma a-na-ku-ma ba-lu be-lí-ia* (8) *ú-ul i-ru-ub* « Auparavant, Hâya-Sûmû a entrepris *avant l'hiver* Huzirân dans sa maison. Je lui ai dit : "Il ne rentrera pas à l'insu de mon seigneur !" »

50 Charpin 1988 : 123, n. a) au texte 349.

51 On trouve dans la littérature trois définitions antagonistes de ce phénomène météorologique : le CAD y voit du givre ou de la gelée blanche (CAD Š/3, 347b, *s. v.* **šurīpu** : « ice, frost »), tandis que P. Charlier considère, à la suite d'A. Finet, que la glace était formée à partir de grêlons compactés (1987 : 1). Cette hypothèse a été mise en doute par J.-M. Durand (1990 : 109) et F. Joannès, qui préfère considérer qu'il s'agit « de neige, ou de givre en quantité importante, que l'on empile ensuite pour les transformer en glace » (1994 : 140).

52 FM 7 49 : (4) *aš-šum* LÚ.TUR *ia-ri-im-li-im* (5) *ša be-lí iš-pu-ra-an-ni a-na ha-mu-ra-bi* (6) *aq-bi-ma um-ma šu-ú-ma ku-uṣ-ṣú-um* (7) *ik-šu-dam ki-i* LÚ.TUR.TUR *i-il-la-ak* (8) *at-la-ak* LÚ.TUR *li-il-li-ik* (9) ANŠE.KUR.RA.HI.A GU₄.HI.A *ù mi-im-ma* (10) *[šu-b]u-ul-tam ša it-ti* LÚ.TUR *a-na a-hi-ia* (11) *[ú-š]a-a[b]-b[a]-l[u²] i-na ru-s[é]-e i-na ku-uṣ-ṣí* (12) *[li]-il-li-ik* (13) *[a-l]a-ka-am ú-ul i-le-i* (14) *[i-na-an-na] i-in-ni-iq* (15) *[la-ú-um šu]-[ú] ú-ul pa-ri-i[s]* (16) *[i-na-an-na]* ITI 2.KAM LÚ.TUR *šu-ú* (17) [LÚ.TUR *ia-ri-im]-li-im ip-pa-ar-ra-ás* (18) *[a-di u₄]-mi ṭà-bu-tim* (19) *[a-na š]u-bu-[u]l-tim* (20) *[ú-ul da-]mi-iq* « Au sujet du bébé Yarîm-Lîm à propos de qui mon seigneur m'a écrit, j'ai parlé à Hammu-rabi. Il m'a dit : "L'hiver vient d'arriver. Comment un tout petit enfant pourrait-il se déplacer ? Allons ! S'il fait le voyage, chevaux, bœufs et tout ce qui compose l'envoi que j'enverrais avec le bébé à mon frère, au moment des *pluies*, en plein hiver, comment (tout cela) pourrait-il aller ? Il ne peut se déplacer. Pour l'heure, il tête encore. C'est un nourrisson ; il n'est pas (encore) sevré. Pour l'heure, ce bébé n'a que deux mois. Le bébé Yarîm-Lîm sera (d'abord) sevré. Jusqu'aux beaux jours, il ne convient pas à être envoyé." »

53 Durand 2000 : 126-127, n. b) au texte 979 : « Le terme de *rusum* est traduit par *AHw*, p. 996a comme "humidité" (Befeuchtung), ce qui est beaucoup trop peu. Il faut comprendre que les pluies torrentielles en détrempant la terre ont rendu les chemins impraticables. La traduction par "boue" met l'accent sur l'aspect le plus immédiat et ce terme est sans doute identique au *rušum* de XXVI 208 : 15', "argile de décomposition" (de *warâšum*, "être sale", non pas réflexe d'un **rôš*, "Türsturz"). » Ce sens est repris par CAD R : 426b, *s. v.* **rusû B** « mud(?) ».

54 Durand 2002 : 167 n. c) au texte 49 : « Pour ce terme de *rusû* (*plurale tantum* !), cf. déjà ARM II 78 : 11 et 26 : *zunnû* et *rusû* empêchent un voyage au début de l'hiver (fin de Dagan = mi-novembre) à partir de la Haute-Djéziré. *Rusû* doit donc désigner une humidité atmosphérique, plus qu'une "humidité du sol" ».

55 LAPO 18 979 (ARM 2 78), étudiée en détails ci-dessous.

56 FM 7 49 : (22) *[aš-šum] mu-ru-uṣ ap-la-ha-an-d[a]* (23) *[ša a]-na ṣe-[e]r [b]e-lí-ia aš-pu-ru* (24) *[1]ia-tar-[d]a-mu-um* (25) *[ha-a]m-mu-ra-bi iš-pu-ra-am-ma* (26) *a-di* [BÀD]*[ki]-[su-m]u-e-pu-uh il-li-ik* (27) *iš-tu ap-la-ha-an-da it-tu-hu* (28) *it-bi-ma a-na ha-la-ab[ki]* (29) *it-tu-úr* « Au sujet de la maladie d'Aplahanda dont j'avais entretenu mon Seigneur, Hammu-rabi a envoyé Yatar-Âmûm. Il est allé jusqu'à la Forteresse de Sûmû-Êpuh. Comme Aplahanda s'était remis, il s'est mis en route pour retourner vers Alep. »

57 FM 7 31 : (9) *aš-šum al-pa-an [ù a-bi-[d]*IŠKUR] (10) *[1]ṣí-id-qé-e-pu-uh k[i]-a-am i[q-bé-e-em]* (11) *um-ma-a-mi be-lí dan-na-tim iš-ku-na-[am]* (12) *[1]al-pa-an ù a-bi-[d]*IŠKUR *ṭá-ra-[du-um-ma ṭú-ru-ud]* (13) *a[n-n] i-tam iq-bé-em i-na-an-na ku-uṣ-[ṣú-um ik-šu-ud]* (14) *a-la-ka-am ú-ul i-le-ú ú° it-ta-[al-la-ku-ma]* (15) *ša pa-an* UDU.HI.A *it-ta-na-a[p]-la-su [ma-an-num]* (16) *a-bi-[d]*IŠKUR *ma-ru-uṣ [i]š-tu [ku-uṣ-ṣú-um]* (17) *it-ti-qú i-na di-ši-i[m [1]al-pa-an it-ti]* (18) *[[1]][a-bí]-[d]*IŠKUR *lu-u[ṭ-ru-dam]* « Au sujet d'Alpân et d'Abî-Addu, voici ce que m'a dit Ṣidqêpuh : "Mon Seigneur m'a donné des ordres exprès : tu dois absolument expédier Alpân et Abî-Addu." Voilà ce qu'il m'a dit. Désormais, l'hiver est arrivé. Ils ne peuvent pas bouger. De plus, s'ils partent, qui s'occupera des moutons ? En outre, Abî-Addu est malade. Une fois l'hiver passé, au printemps, je ne manquerai pas d'expédier Alpân avec Abî-Addu. »

bylonie[58], via la route du désert (pour éviter le territoire contrôlé par Mari) puis le Moyen Euphrate babylonien, à partir de Hît[59].

Ces préventions contre les déplacements hivernaux n'affectaient pas que les humains, et il semble avoir été admis que les troupeaux ne devaient pas se déplacer durant les frimas (du moins sur de longues distances). Cela est explicite dans une lettre de Niqhatum, une sœur de Zimrî-Lîm qui semble avoir vécu du côté de Dêr ou Talhâyum[60], dans le nord-ouest du triangle du Habur (Yapṭarum)[61] : le roi de Mari lui avait opposé une fin de non-recevoir du fait de la saison, et promis d'expédier les ovins au printemps (*dišum*) – ce que sa sœur ne manque pas de lui rappeler le moment venu[62].

À l'époque néo-assyrienne, la neige (*kuppû*) est invoquée, du temps de Sargon II, comme empêchant le mouvement de troupes localisées dans la province de Kurbail[63] (entre Hazir et Grand Zâb[64]). Elle est encore présentée comme un empêchement aux communications par Urzana, roi de Muṣaṣir[65], au niveau de la plaine de Rowanduz et des passes reliant les hauts-plateaux iraniens à l'Assyrie[66]. Il en allait de même pour le trajet entre Bît-Hamban et Babylone, et sans surprise c'est dans l'environnement montagneux du Zagros, où se trouve la première[67], que les problèmes étaient concentrés[68]. Une lettre de Bêl-iqîša (le responsable de l'Esaggil et de l'Ezida) témoigne cependant du souhait que des gens à lui fassent le trajet entre Kalhu et Babylone avant l'hiver[69], ce qui montre une fois encore que les préventions contre les voyages hivernaux n'étaient pas limitées aux seules régions de piémont.

Les expéditions militaires hivernales, sources de tensions

Dans certains cas, les réalités militaires obligeaient toutefois à continuer les opérations même après l'arrivée de la mauvaise saison, ce qui apparaît avoir été source de mécontentement pour les soldats, et de soucis pour les généraux. L'expression consacrée pour inciter à de telles opérations semble avoir été « qu'il fasse chaud ou froid » (*ina umšim û ina kuṣṣim*)[70], qui en creux désigne les périodes (cœur de

58 A.3297+ (Ziegler 2004 : 96-100) : (3) 1 DUB.SAR *ù* 3 LÚ.[TUR].[M]EŠ [DUMU.MEŠ *ši-ip-ri*] (4) LÚ KÁ.DINGIR.RA^{ki} [KASKAL] [*ša a*]-[*na ia-am-ha-ad*^{ki}] (5) *ù ša a*-[*na*] [*kar-k*]*a-mi-iš*$_7^{ki}$ [*il-li-ku*] (6) *a-na ṣ*[*e-r*]*i*-[*ia in*]-*na-bi-tu*-[*nim*] (7) LÚ.TUR.ME[Š] *šu-nu ṭe*$_4$*-em*-[*šu*]-*nu* [*ga*]-*am-ra-am i*-[*du*] (8) [*ù*] *ì-lí-e-pu-uh pa-ni-šu-nu iṣ-ba-tu-m*[*a*] (10) [*ú-š*]*e-ti-qú-šu-nu-ti* (11) [*i-na-a*]*n-na a-na di-ši-im* DUMU.MEŠ *ši-ip-ri* [*šu-nu*] (12) [*ge-e*]*r-ri-šu-nu i-ṣ*[*a-a*]*b-ba-tu-m*[*a*] (13) [*a-na*] KÁ.DINGIR.RA^{ki} *i-*[*ti*]*-qú* « Un scribe et trois serviteurs, *messagers* du sire de Babylone, (*appartenant à*) *une expédition* qui *est allée* au *Yamhad* et à Karkemiš, se sont enfuis chez moi. Ces serviteurs connaissent le rapport complet (à délivrer). De ces messagers, c'est Gâ'idânum et Ilî-êpuh qui avaient pris la tête et ils leur avaient *fait* faire la traversée. À présent, pour le printemps, ces messagers feront route et feront la traversée *vers* Babylone. »

59 Pour le trajet suivi par cette ambassade, et l'embuscade tendue par Samsî-Addu à l'aide des nomades Sutéens du désert, voir Ziegler 2004.

60 Durand 2000 : 479.

61 Ziegler / Langlois 2016 : 77-78 (Dêr) ; 357-358 (Talhâyum) et 406-407 (Yapṭurum).

62 LAPO 18 1252 (ARM 10 48) : (5) *e-ri-iš-tam it-ti a-hi-ia* (6) *e-ri-iš* (7) *um-ma a-na-ku-ma* UDU.HI.A (8) *a-hi li-ip-qí-da-an-ni* (9) *ù ke-em ta-aq-bi* (10) *um-ma at-ta-a-ma* (11) *ku-ṣú-um i-na ki-ma i-na-an-na* (12) UDU.HI.A *ú-ul ša na-da-nim* (13) *i-na di-ši-im a-na-ad-di-na-ki-im* (14) *an-ni-tam ta-aš-pu-ra-am* (15) *i-na-an-na a-nu-um-ma di-šu-um* (16) UDU.HI.A *ša na-da-nim* (17) *a-hi li-id-di-nam* « J'avais exprimé auprès de mon frère le désir suivant : "Que mon frère me ravitaille en moutons !", et toi tu m'avais dit ceci : "C'est l'hiver, ce qui fait que ce n'est pas le moment de livrer des moutons. Au printemps, je t'en livrerai !" Tu m'avais écrit cela. Voilà que maintenant c'est le printemps. Que mon frère me livre les moutons qu'il peut livrer. »

63 SAA 5 126 : (r. 3) [*ina bat*]*-ti-bat-ti* [*ša*$^{!}$] UR[U$^{!}$ x x] (4) [*kam*]*-mu-su*$^{!}$ TA IGI *ku-*[*pe-e*] (5) *la i-la-ka šú-nu l*[^{a} x x x] « Ils *résident* dans les environs de la ville [...] ; à cause de la neige, ils ne peuvent partir [...] »

64 Radner 2006 : 44.

65 SAA 5 146 : (7) *ku-pu-ú* : KASKAL.MEŠ (8) *ú-ṣa-bi-it* : [*ka*]*-a-ni* (9) *a-da-ga-la* : *la il-la-k*[*a*] « la neige a saisi les routes. À présent, (tel que) je le vois, on ne peut pas voyager. »

66 Parpola / Porter 2001 : 13 et pl. 4. Pour la géographie historique de cette région de l'actuel Kurdistan irakien, qui fait depuis quelques années l'objet de plusieurs fouilles, voir en particulier Danti 2014 et Radner 2012 et 2016.

67 Parpola / Porter 2001 : 7 et pl. 12.

68 SAA 15 60 : (4) *ša* LUGAL EN-*li iš-pur-an-ni* (5) *ma-a* LÚ *e-mu-qi-ka* TA *ma-da-ti-ka* (6) *nam-mi-iš al-ka mi-nu* (7) *mu-qa-a-a* LÚ *e-mu-qi* TA *ma-da-te* (8) *ú-nam-ma-ša ana-ku* 1-*et* GIŠ.GIGIR (9) *ša is-si-ia ta-li-ku-u-ni* (10) TA *pa-an ku-up-pi ina* KUR É$^{!}$*-ha-ban* (11) *ur-ta-mi* LUGAL *ú-da ku-pu-u* (12) *da-a-na* « Au sujet de ce que que le roi, mon seigneur, ma écrit : "Mets en route ta troupe et ton tribut, et viens !" – comment puis-je mettre en route ma troupe et mon tribut ? À cause de la neige, j'ai dû abandonner un chariot qui était venu avec moi à Bît-Hamban. Le roi sait bien qu'il y a beaucoup de neige ! » ; SAA 15 61 : (r 9') *ú-ma-a an-nu-rig* GU$_4$.MEŠ UDU.MEŠ (10') *qu-ru-bu* TA *pa-an ku-ú-ṣi* (11) TA-*a-an* I$_7$.MEŠ *la ú-bi-lu* « À présent, les bœufs et les moutons sont disponibles, mais ils n'ont pas été amenés à cause du froid et des rivières (en crue) » Le texte date du mois xi (janvier-février ; l. 7), et le serviteur suggère que les animaux (destinés aux sacrifices à Babylone) voyagent au mois vii (septembre-octobre ; l. r 13'), faute de quoi les moutons devront être tués avant le voyage (l. r 13'-15').

69 SAA 17 29 : (15) *a-di la ku*$^{!}$*-ṣi*$^{!}$ *i-kaš-šá-du*$^{!}$ [0] (16) LUGAL *liq-bi-ma* KASKAL.2 *a-na* [GÌR.2-*šú-nu*] (17) *liš-ku-nu* « Puisse le roi donner l'ordre qu'ils se mettent en rout avant que l'hiver n'arrive ! »

70 ARM 28 175 : (1') [*i*$^{!}$]*-na um-ši-im ù i-na k*[*u-uṣ-ṣí-im*] (2') *a-na ṣe-ri-ni a-la*^{ki} *ku-*[*uš-da-nim*] « Qu'il fasse chaud ou froid, (2') gagnez la ville à notre rencontre. »

l'été et de l'hiver) pendant lesquelles l'armée n'aurait pas dû intervenir – tout en insistant sur le fait qu'il fallait en l'occurrence faire exception à la règle.

Un petit dossier datable de ZL 3-ZL 4 (1772-1771 BCE) témoigne des problèmes rencontrés par les troupes alliées envoyées à Mari pour lutter contre Ešnunna, par Qaṭnâ d'une part et par Babylone d'autre part. On voit ainsi Asqûdum se présenter comme devant être solidaire des troupes de Qaṭnâ qui ont souffert du froid lors de leur marche vers Qaṭṭunân[71]. Pour pallier ces difficultés, les soldats étaient approvisionnés en huile pour s'oindre le corps, et ainsi se protéger du froid, comme en témoigne une autre lettre d'Asqûdum appartenant au même dossier[72]. En ce qui concerne les troupes envoyées par Hammu-rabi de Babylone[73], elles durent rester en opérations pendant l'hiver, pendant que les Ešnunnéens avaient trouvé refuge à Qaṭṭarâ et se faisaient approvisionner en habits contre le froid[74]. Les troupes babyloniennes, handicapées par les rigueurs de l'hiver, réclament elles aussi des habits par la voix de Nûr-Šamaš seul dans un premier temps[75], puis par l'ensemble des généraux du corps expéditionnaire babylonien[76]. On sait que les Babyloniens arrivèrent à Mari vers la mi-ZL 3, où ils furent cantonnés au moins quatre mois[77], et que leurs généraux sont présents dans la capitale au mois xii (février-mars) de la même année[78]. L'épisode se situe avant la phase active des opérations, puisque la conquête de Šubat-Enlil par Ešnunna, objectif final de la campagne, n'est pas encore réalisée. Or, on sait que l'occupation de la ville par les armées ešnunnénnes couvre une période allant du mois iii (mai-juin) ou iv (juin-juillet) au mois viii (octobre-novembre) de ZL 4[79]. L'épisode de froid durant lequel les Ešnunnéens occupent Qaṭṭarâ et les troupes babyloniennes réclament des habits doit donc se situer entre le mois vii (septembre-octobre) de ZL 3[80] et le mois iii (mai-juin) de ZL 4, sans que l'on puisse offrir de datation plus précise. Une grosse décennie plus tard[81], on retrouve des préoccupations similaires dans une lettre écrite à Mutîya de Šehnâ (Tell Leilān), dont la tonalité est très proche de celle des lettres des généraux babyloniens au temps de Zimrî-Lîm[82].

71 ARM 26/1 28 : (5) *ṣa-bu-um*.MEŠ *qa-ṭà-na-yu-um it-ti-ia* (6) *ù ku-uṣ$_x$-ṣú ṣa-ba-am*.MEŠ *uš-ta-am-ri-iṣ* « Je viens d'arriver à Qaṭṭunân. L'armée de Qaṭnâ est avec moi et le froid a fait souffrir l'armée. »

72 ARM 26/1 29 : (12') *ša-ni-tam ṣa-bu-um ṣí-di-tam iṣ-ba-at* (13') *ù* Ì.GIŠ *ú-ul i-ba-aš-ši* (14') *ù u$_4$-um ku-uṣ-ṣí-im* (15') *i-na-an-na* Ì.BA-*sú-nu* (16') *ú-up-pí-iš-ma* 8 GUR, 0,2.2 SILÀ Ì.GIŠ (17') Ì-BA *ṣa-bi-im ar-hi-iš i-n*[*a* ^{giš}MÁ.HI.A] (18') *li-iš-šu-nim-ma ar-hi-iš* [*li-im-hu-ru*] (19') *be-lí i-di k*[*i-m*]*a ba-lum* Ì.GIŠ *ṣa-b*[*u-um* ^{giš}TUKUL.MEŠ] (20') [*i*]*-na ku-uṣ-ṣí-im e-pé-ša-am u*[*l i-le-i*] « D'autre part, l'armée a reçu ses provisions de route mais il n'y a pas d'huile et il se met à faire froid. Maintenant, j'ai estimé leurs rations d'huile. Il faut qu'on livre rapidement par bateaux 8 qôr et 22 litres d'huile, rations d'huile de l'armée et qu'[ils les reçoivent] rapidement. Mon Seigneur sait que, sans huile, l'armée ne peut livrer de combat, par temps froid. »

73 Voir le détail en Durand 1987b, Joannès 2002 et Charpin / Ziegler 2003 : 194-206.

74 FM 6 12 : (3) LÚ ÈŠ.NUN.NA^{ki} (4) *i-na qa-ṭá-*[*ra*]^{ki} *wa-ši-ib* 2 LÚ *mu-na-bi-tu* (5) *in-na-bi-tu-nim-ma ki-a-am ṭe$_4$-ma-am id-di-nu-nim* (6) LÚ ÈŠ.NUN.NA^{ki} *i-na qa-ṭá-ra^{ki} ku-uṣ$_4$-ṣí* (7) [*i*]*p-pé-e*[*š*] *ù a-na ma-at šu-ba-at-*^{d}EN.LÍL^{ki} (8) [*pa-n*]*u-šu ša-ak-nu ù qar-ni-li-im* (9) *a-na ma-ti-šu a-na* 4 *li-mi* TÚG.HI.A (10) *a-na* LÚ ÈŠ.NUN.NA^{ki} *na-da-nim ir-ta-ga-am* « L'Ešnunnéen est installé à Qaṭṭarâ. Deux déserteurs s'en sont enfuis, et ils nous ont donné l'avis suivant : "L'Ešnunnéen, dans Qaṭṭarâ, passe l'hiver et c'est vers la région de Šubat-Enlil qu'il se dispose à marcher. D'autre part, Qarnî-Lîm vient de réclamer à son pays 4000 habits pour les donner à l'Ešnunnéen." »

75 FM 6 12 : (21) *a-nu-um-ma* LÚ-^{d}IŠKUR *ù* GÌR.NI.SA$_6$ (22) *aš-šum* TÚG.HI.A *ša be-lí a-na ṣa-bi-šu na-da-nam* (23) *iq-bu-ú aṭ-ṭar-da-aš-šu-nu-ti* (24) *be-lí la i-ka-al-la-aš-šu-nu-ti* (25) *ar-hi-iš li-iṭ-ru-da-aš-šu-nu-ti-ma* (26) *pa-ni ṣa-bi-im la i-ṣa-li-mu* (27) ERIN$_2$.MEŠ *be-lí-ia ka-ṣí* « Voici aussi que je viens d'envoyer Awîl-Adad et Girnisa au sujet des habits que mon Seigneur avait dit de donner à son armée. Que mon Seigneur ne les retienne pas et les renvoie rapidement, pour que l'armée ne se fâche pas ! L'armée de mon Seigneur gèle de froid ! »

76 FM 6 13 : (9) ^{I}*mu*$^{?}$-[..... *iš-pu-ra-am*], (10) *um-ma* [*šu*]*-ú-*[*ma ṣa-ba-am*] (11) *ṭú-ur-d*[*a*]*-nim-*[*ma*] (12) TÚG.HI.A *a-na lu-bu-*[*uš-ti-ku-nu*] (13) *li-il-qú-nim* (14) *a-nu-um-ma ṣa-ba-am* (15) *it-ti* LÚ-^{d}[IŠKUR] (16) *ù* GÌR.NI.S[A$_6$] (17) *ni-iṭ-ṭá-ar-*[*dam*] (18) *be-el-ni ar-hi-iš* (19) TÚG.HI.A *a-na lu-bu-*[*uš-ti-ni*] (20) *li-ša-bi-*[*lam*] (21) *ṣa-bu-um e-re-ši-šu-ma* (22) *iz-za-az zi-im ṣa-bi-im* (23) *it-ta-ak-ru* (24) 2 *li-im* TÚG.HI.A (25) *i-na i-in be-li-ni* (26) *la-a* [*iq-qí*]*-ir* (27) *ṣa-bu-*[*um i-na ku-uṣ-ṣ*]*í* (28) *i-t*[*a-al-la-ak*] (29) *ar-hi-iš be-el-ni* (30) *li-pu-la-šu-*[*nu-ti*] (31) [ER]IN$_2$ *be-li-ni ša it-ti-šu-nu i-*[*l*]*a-ku-nim* (32) TÚG.HI.A *it-ti-šu-nu li-iš-šu-nim* « Mu[... a écrit] en disant : "Envoyez moi [des gens] et qu'ils prennent les habits pour vos rations d'habillement !" Voici que nous venons d'envoyer des gens avec Awîl-Adad et Girnisa. Que notre Seigneur fasse amener des habits pour nos rations d'habillement ! L'armée est toute nue et elle fait la tête. Que 2000 habits n'apparaissent pas une dépense trop importante à notre Seigneur, (car) l'armée se déplace en plein froid ! Puisse notre Seigneur leur donner rapidement satisfaction, et que les soldats de notre Seigneur qui iront avec eux rapportent avec eux les habits ! »

77 Joannès 2002 : 177.

78 Charpin / Ziegler 2003 : 196.

79 Joannès 2002 : 177 ; Charpin / Ziegler 2003 : 197-199.

80 À cette date, le général ešnunnéen Šallurum attaque le Moyen-Euphrate, mais Qattarâ est toujours entre les mains de Hadnu-rabi ; cf Charpin / Ziegler 2003 : 194, avec Charpin / Durand 1987 : 137 n. 40.

81 Pour la situation historique de cette lettre, voir le résumé en Charpin 2004b : 349-350.

82 PIHANS 117 140 : (4) ERIN$_2$.MEŠ LÚ.DIRI.GA *ša* ^{I}*ša-ni-gi* (5) *ip-hu-ur-ma a-na* ^{I}*ša-ni-gi* (6) *ki-a-am iq-bu-nim um-ma-a-mi* (7) *iš-tu* ITI 4.KAM *ka-ra-šu-um a-na ka-ra-ši-im* (8) [*it*]*-ta-na-di-*[*na*]*-an-né-ti* (9) *ú-*[*lu*]*-ú* ŠE.BA [*ú*]*-ul ni-ma-ah-ha-ar* (10) *ú-l*[*u*]*-ma* SÍG.BA *ú-ul i-na-ad-di-nu-/né-ši-im* (11) *ù ku-uṣ-ṣú-um* (12) *ik-ta-aš-dam* « La troupe des supplétifs de Šanigi s'est réunie et m'a parlé en ces termes : "Depuis 4 mois, un camp ne cesse de nous affecter à un (autre) camp. Nous ne recevons pas de rations de grain et on ne nous donne pas non plus de ration de laine : or la saison froide vient d'arriver." » (traduction française D. Charpin, archibab.fr)

Ces réclamations ne concernaient pas uniquement des denrées inertes, et l'on possède quelques exemples qui témoignent que des troupeaux de moutons pouvaient, en cas de nécessité, circuler vers les théâtres d'opération pendant l'hiver. Cela se déduit d'un épisode daté de l'hiver de ZL 11 (1764 BCE)[83] concernant la ville d'Ašihum, au nord-ouest du Djebel Sindjār[84] : devant la perspective de devoir soutenir un siège pendant la saison froide, les troupes du général mariote auprès d'Atamrum, Yasim-El, demandent à ce qu'on les fournisse en moutons[85] — sans doute pour disposer de réserves de viande. Cette lettre permet d'éclairer une demande de Šarriya de Razamâ-du-Yussân (Tell Hawa), au nord du Sindjār[86], qui indique que tous ses moutons ont été consommés, alors même que l'hiver est particulièrement rude, raison pour laquelle il demande à Zimrî-Lîm de lui en faire parvenir[87]. Ici aussi, il s'agit sans doute de « viande sur pattes » à destination des soldats, si le contexte précis reste difficile à évaluer. Comme pour les hommes contraints de rester mobilisés, la circulation hivernale des moutons semble donc avoir été guidée par les nécessités de la guerre, à l'encontre des pratiques normales mentionnées plus haut.

Au premier millénaire av. n.è., les difficultés causées par l'hiver (et plus particulièrement la neige) apparaissent comme un topos des inscriptions royales néo-assyriennes, mais dans la plupart des cas les situations décrites ne renvoient pas tant à la Haute Mésopotamie qu'aux lointaines régions montagneuses du Haut Tigre ou de l'Iran[88]. Il en va de même pour plusieurs mentions, dans des lettres, de neige en liaison avec des épisodes militaires dans des régions de montagne proches de l'Urartu[89], ou en lien avec l'envoi de chevaux depuis la lointaine Médie[90]. La seule référence, dans une inscription néo-assyrienne, aux rigueurs de l'hiver en lien avec une localité située à la limite entre Haute Mésopotamie et Taurus pourrait être le refuge choisi par Esarhaddon (680-669 BCE) au moment des conflits internes à la cour assyrienne qui précédèrent le meurtre de Sennacherib, si celui-ci était bien Harrân — mais cette identification est disputée, et une localisation plus au nord dans les montagnes a aussi été proposée[91]. L'indication, dans les inscriptions d'Esarhaddon, qu'il quitta ce refuge à l'occasion de sa marche triomphale vers le pouvoir sans craindre « la neige et le froid du mois xi, au cœur de l'hiver »[92] s'applique cependant difficilement à cette partie du Haut Balîh, au sud-ouest de Şanliurfa où l'altitude ne dépasse guère les 360 m, et il convient de ne pas donner une importance exagérée à un texte où l'emphase stylistique et idéologique prime sur la véracité géographique[93].

De rares et difficiles voyages en hiver

Hors contexte militaire, les mentions de voyages hivernaux sont rares, et toujours problématiques. Il est ainsi fait mention des difficultés causées par les intempéries dans la passe entre les Djebels ʿAbd el-Azīz et Sindjār dans une lettre de Kâbiya et Yamraṣ-El qui concerne un déplacement à motivation diplomatique[94]. La lettre peut être datée du mois ix (novembre-décembre) de ZL 8 (1767 BCE)[95] et témoigne des conditions sévissant à la transition entre automne et hiver : aux pluies (*šamû*) s'ajoutent les chutes de neige (*šalgum*, noté *šalkû*), de nos jours rares mais possibles en cette saison. Dans le même ordre d'idée, on retrouve la mention « au moment de la neige (ou : du verglas) » (*ina šurîpim*) dans un document administratif enregistrant des

83 Il s'agit du moment où Atamrum d'Andarig tenta de reprendre Ašihum, Adallayâ et Šuhpad à Hammu-rabi de Kurdâ (Charpin / Ziegler 2003 : 232-234).

84 Ziegler / Langlois 2016 : 39-40.

85 ARM 26/2 405 : (30') LÚ GAL KU$_5$.MEŠ *a-wa-tam ki-a-am iṣ-ba-tu-nim um-ma-a-mi i-nu-ma ni-i*[*t-ta-a*]*l-kam* (31') *ba-lu-um* UDU.HI.A *ú-lu-ma* KÙ.BABBAR *ni-it-ta-al-kam i-na* [K]U$_5$ 5 LÚ.M[EŠ] (32') *lu-pu-ut-ma* UDU.HI.A-*ni li-il-qú-nim ku-ṣú-um a-na pa-ni-ne* (33') *an-ni-tam iq-bu-nim-ma* 5 LÚ.MEŠ.ÀM *i-na* KU$_5$ *a-na* UDU.HI.A-*šu-nu le-qí-im* (34') *aṭ-ru-ud ú* LÚ.MEŠ *šu-nu a-di-ni a-na ṣe-ri-ia ú-ul ik-šu-du* « [L]es chefs de section ont pris la parole en ces termes : "Quand nous [sommes] partis, c'est sans moutons et sans argent que nous sommes partis. Désigne 5 hommes par section pour qu'ils aillent prendre nos moutons, (car) l'hiver est devant nous !" Voilà ce qu'ils ont dit et j'ai envoyé 5 hommes par section pour prendre leurs moutons, et ces hommes ne sont pas encore arrivés vers moi. »

86 Ziegler / Langlois 2016 : 287-288. Moins probablement, il pourrait s'agir d'une lettre de Šarraya d'Eluhut, dans la Haute Djéziré (Kupper 1998 : 229).

87 ARM 28 160 : (5) UDU.HI.A *ša a-hi* (6) *a-na hi-iz-zi* (7) *iq-bu-ú* (8) *li-id-di-na-am* (9) *i-na ša-at-*[*t*]*im* (10) *an-ni-tim* [*ku-ṣ*]*ú-um* (11) *id-ni-in-*[*m*]*a* (12) [U]DU.HI.A-*ia it-ta-ag-ma-ra* « Les moutons dont mon frère avait parlé à Hizzi, qu'il me les livre ! Cette année, le froid est vif et mes moutons ont été consommés. »

88 Le dossier est étudié en détails par Van Buylaere 2009.

89 SAA 5 92 et 145 (voir pour ce dernier Van Buylaere 2009 : 300).

90 SAA 15 83 (Van Buylaere 2009 : 298).

91 Van Buylaere 2009 : 302.

92 RINAP 4 1 : (i 66) *šal-gu ku-uṣ-ṣu* ITI.ZÍZ *dan-na-at* EN.TE.NA *ul a-dur* (// RINAP 4 6 : i' 13').

93 Voir en ce sens les remarques de G. Van Buylaere concernant ce motif et la façon dont il s'isncrit en opposition aux inscriptions de Sennacherib (Van Buylaere 2009 : 303).

94 LAPO 16 263 (ARM 2 57 = ARM 28 123) : (6) *pa-ni-ni$_5$ a-na ṣe-er* (7) *a-bi-ni ni-id-di-i*[*n*]*-m*[*a*] (8) *ša-mu-ú* (9) *ù ša-al-ku* (10) *ik-la-an-né-ti* (11) *iš-tu na-ga-ar*^{ki} (12) *a-di ṭà-ba-tim*^{ki} (13) *ik-la-an-né-ti* « Nous nous étions dirigés vers notre Père mais les pluies et les chutes de neige nous ont arrêtés : elles nous ont arrêtés sur le trajet de Nagar à Ṭâbâtum. »

95 Charpin / Ziegler 2003 : 211 et n. 385.

distributions de textiles[96], et il est probable que le verbe (désormais) perdu renvoyait aux difficultés rencontrées par le voyageur en cette période du mois x (décembre-janvier)[97]. Un peu plus avant dans la saison, une lettre datée du mois xi (janvier-février) de ZL 1 (1774 BCE) indique que de fortes pluies, si elles sont perçues comme de bon augure (ll. 5-9), ont aussi pour conséquence de retenir à Mari une ambassade ešnunéenne qui devait rejoindre le roi alors hors de sa capitale[98].

L'idée que le froid posait un problème aux voyageurs se retrouve à l'occasion du convoiement d'un tambour (*alûm*) de bronze depuis Mari vers Alep[99]. Même si les difficultés du trajet tenaient avant tout au caractère monumental et au poids de l'ex-voto destiné au dieu de l'Orage d'Alep, la troupe d'Asqûdum fut gênée par l'arrivée du mauvais temps, qui empêchait le halage des barques et obligea l'expédition à les abandonner pour remonter l'Euphrate en portant le tambour[100]. Une fois arrivé à Tuttul, Asqûdum ne put trouver une troupe fraîche disposée à braver le froid pour l'aider à continuer le chemin jusqu'à Emâr et dut demander un nouvel effort à ses hommes[101]. Si, comme le suggère J.-M. Durand[102], le texte administratif ARM 23 136, daté du 20/xii/ZL 2 (1773 BCE), enregistre les préparatifs de cette opération, l'épisode serait à situer aux alentours du mois i (mars-avril) ou ii (avril-mai) de ZL 3 (1772 BCE), mais cela est problématique : non seulement la saison est peu propice aux coups de froid, mais il est de surcroît peu vraisemblable que l'on ait envisagé de remonter l'Euphrate par halage au moment de sa grande crue printanière, qui rendait l'opération quasiment impossible. Son hypothèse initiale, qui distinguait les deux tambours[103], me semble donc préférable, et il faut postuler que le transport de l'ex-voto eut lieu durant l'hiver de la fin de ZL 1 (1774 BCE), ce qui est conforme avec l'utilisation du nom d'année dit d'Addu d'Alep pour commémorer l'événement en ZL 2[104]. En tout état de cause, il semble que le dieu de l'Orage marqua son contentement une fois le trajet achevé et le tambour livré : même si le passage est très abîmé, l'arrivée d'Asqûdum à Alep semble avoir été marquée par les premières pluies depuis longtemps, signe auspicieux s'il en est[105].

À l'époque néo-assyrienne, une lettre datant du règne d'Assurbanipal (668-630 BCE) qui traite du transfert de chevaux depuis Ninive(?) vers une destination inconnue[106] suggère que l'on évitait de leur faire prendre la route au plus fort de l'hiver (janvier à début février), de peur qu'ils ne meurent de froid, mais que cela devenait envisageable à partir de la mi-février, lorsque les températures remontaient[107]. L'indication est relativement surprenante, dans la

96 ARM 22 153+170 (Durand 2009 : 301-302) : (15) [1 ^{túg}*ú-ṭub-lu* ÚS] *ew-ri-ki-ba* (16) [LÚ ...]-*ú*^{ki} *i-nu-ma i-na šu-ri-pí-im* (17) [...]-*tu* « Une étoffe-*uṭublum* pour Ewri-kiba, homme de [...], lorsqu'il [...] au moment de la neige/du verglas. »

97 Durand 2009 : 302, n. b) au texte XXII 153+170.

98 ARM 33 267: (5) ⌜u_4⌝-*um ṭup-pí an-ni-e-em* (6) *a-na ṣe-er be-lí-ia ú-ša-bi-lam* (7) U_4 2.KAM *ša-mu-um i-na li-ib-bi ma-ri*^{ki} (8) *iz*$^{!}$*-nu-un* (9) *be-lí li-ih-du* (10) *ša-ni-tam aš-šum* DUMU.MEŠ *ši-ip-ri* (11) ÈŠ.NUN.NA^{ki} (12) *a-na ṣe-er be-lí-*[*ia*] (13) *ki-a-am aš-pu-ra-*[*am*] (14) *um-ma a-na-ku-ma* DUMU.MEŠ *ši-i*[*p-ri*] (15) LÚ ÈŠ.NUN.NA^{ki} (16) *uš-ta-ṣa-ab-ba-tam-ma a-na ṣe-er be-lí-ia* (17) *a-ṭà-ar-ra-da-aš-šu-nu-ti* (18) *an-ni-tam a-na ṣe-er be-lí-ia aš-pu-ra-am* (19) *ki-ma ša-mu-um iz-nu-nu* (20) *i-mu-ru-ma ik-ka-lu-ú* « Le jour où je fais porter chez mon seigneur cette tablette de moi, cela fait deux jours que la pluie tombe à Mari. Que mon seigneur se réjouisse ! Autre chose : j'avais écrit ceci chez mon seigneur au sujet des messagers d'Ešnunna : "Je vais équiper les messagers de l'homme d'Ešnunna et les expédier chez mon seigneur." Voilà quel était mon message chez mon seigneur. Ils ont vu que la pluie tombait et n'ont pas bougé. » Pour la date de la lettre, voir Durand 2019 : 529 et 538.

99 Durand 1988 : 119-133 ; 2002 : 31-32 ; Ziegler 2008 : 75-76.

100 ARM 26/1 18 : (9) *i-na a-la-ki*$^{!}$*-ia i-na* ^{giš}MÁ.TUR.HI.A *ku-uṣ-ṣú-um* (10) *iṣ-ba-ta-an-ni-ma ṣa-bu-um ka-lu-šu i-na ku-uṣ-ṣí-im* (11) [*i*]*t-ta-ak-ki-iš-ma ša-da-ad* ^{giš}MÁ.TUR.HI.A *ú-ul i-le-yu* (12) [*e-t*]*e-qa-am e-ti-iq-ma ṣí-di-ti ka-la-ša* (13) *i-na* ^{giš}MÁ.TUR.HI.A *e-*[*z*]*i-ib-ma ṣí-di-it* U_4 5.KAM (14) *él-qé-e-ma e-li-tam-ma at-t*[*a-l*]*a-ak* « Lors de mon déplacement, le froid m'a saisi sur les barques et toute la troupe, du fait du froid, a été abattue. On ne pouvait haler les barques. J'ai passé outre. J'ai laissé dans les barques toutes mes provisions. J'en ai pris pour 5 jours, et je suis parti vers l'amont. »

101 ARM 26/1 18 : (26) *um-ma a-na-ku-ma ṣa-b*[*u-u*]*m i-ha-aš* (27) [*a-nu-m*]*a a-la-am šu-up*$^{!}$*-ši-i*[*h-šu-nu*]*-ti* (28) [*a-w*]*a-tam-ma ú-ul i-ša-al um-ma šu-ma* (29) [*a-na*] *i-ma-ar*^{ki} *šu-uk-ši-da-aš-šu* (30) [*ṣa-b*]*a-am i-na tu-ut-tu-ul*^{ki} *a-na di-pa-ri-*[*i*]*m* (31) [*aṣ*]*-ḫu-ur-ma ú-ul ú-ta-um-ma šu-nu-ma* (32) [*ku*]*-ṣ*[*u*]*-*[*um-ma i-na*]*-a*[*n-n*]*a* [*a-na*] *ṣa-*[*bi*]*-ia ad-ni-*[*i*]*n-ma* (33) *a-na i-ma-ar*^{ki} *ú-ša-ak-š*[*i-id-m*]*a e-z*[*i*]*-ib-šu* (34) *um-ma a-na-ku-ma šu-úš-še-eš-šu* « J'ai dit (à Hammu-Samar) : "La troupe n'est pas contente. Libère-les, maintenant, de l'*alûm*". Sans considérer la chose comme hors de question, il a dit : "Fais-le parvenir jusqu'à Emâr. J'ai eu beau tourner et retourner, je n'ai pas trouvé de troupe à Tuttul, par signal lumineux. On me dit : 'Il fait froid'". Alors, insistant auprès de ma troupe, je l'ai fait parvenir à Emâr et l'y ai laissé, en disant : "Fais-le porter !" »

102 Durand 2002 : 32.

103 Durand 1988 : 120.

104 Sur la relation entre ce nom d'année commémorant la dédicace d'une statute et l'offrande du tambour, voir Durand 2002 : 32.

105 ARM 26/1 20 : (20) *a-di ḫa-l*[*a-a*]*ḫ*^{ki} (21) [*e-te-er-bu mi-im-ma*] *ša-mu-um* (22) [*ú-ul iz-nu-un i-na ša-n*]*i-im* u_4*-mi-i*[*m...*] « Jusqu'à ce que je sois entré à Alep, nulle pluie n'était tombée. Le lendemain ... »

106 Fales 2000 : 269 identifie le récipiendaire de la lettre, Nabû-šar-aḫḫêšu, au gouverneur de Samarie éponyme (PNAP 2/II : 872a, n° 7), mais cette hypothèse n'est pas retenue par la PNAP, qui l'enregistre séparément (PNAP 2/II : 873a, n° 18).

107 ABL 302 : (r 1) *ina dan-ni-te šá ku-uṣ-ṣu* (2) *i-na ku-uṣ-ṣi-im-ma* (3) *ina ku-uṣ-ṣu i-mut-tú* (4) *ina meš-la-te šá* ITI.ZÍZ (5) *ni-iš-pur bi-is* (6) *a-na* ITI.ŠE *i-šad-da-du-niš-šú-nu* (7) *il-la-ku-u-ni* (8) *il-la-ka ina* ŠÀ ITI.BAR.AG (9) *i-kaš-šá-du-ú-ni* « Au cœur de l'hiver, lorsqu'il fait très froid, (les chevaux) mourraient à cause du froid ! Nous les enverrons au milieu du mois xi [janvier-février], puis ils les conduiront et

mesure où les chevaux néo-assyriens étaient des chevaux sauvages capturés et domptés, pour la plupart originaires des hautes terres iraniennes (en particulier la Médie)[108] où ils devaient affronter un climat bien plus rude que celui qui existait entre Ninive et (possiblement) le Levant sud. Enfin, une lettre dont l'auteur est perdu et qui ne se laisse pas facilement assigner à une aire géographique précise mentionne des pluies importantes, retardant une expédition au moins jusqu'à la moitié du mois xi (janvier-février) – sous réserve que ne se forme pas, de surcroît, du verglas (*qarhu*)[109].

En été, les fortes chaleurs rendent les voyages dangereux

Durant l'été, il était recommandé de s'abstenir de toute activité d'extérieur au moment le plus chaud de la journée – particulièrement pour les personnes jugées fragiles, comme les femmes[110]. Pour cette raison, on n'envisageait pas sans une certaine appréhension de leur faire effectuer de longs déplacements au plus fort de la saison, comme il ressort d'une lettre de Sammêtar à Zimrî-Lîm au sujet du voyage que devait effectuer la nouvelle reine Šiptu, depuis son Alep natale jusqu'à Mari. Plutôt que de faire courir à cette dernière et aux femmes de sa suite des risques inconsidérés, l'administrateur suggère de reporter le voyage d'un bon mois[111]. La fin des grosses chaleurs est ici située dans la première décade du mois vi (août-septembre), ce qui semble légèrement trop tôt comparé aux données modernes qui situent la baisse (relative) des températures dans le courant du mois de septembre. Une date aux alentours de la mi-septembre correspondrait sans doute mieux ici, puisque non seulement ce mois connaît, en dépit de chaleurs encore fortes, une baisse notable des journées très chaudes[112] (dont on peut penser qu'elles représentaient le risque majeur pour les voyageuses), mais aussi du fait que la lettre mentionne le début de la reprise de crue automnale de l'Euphrate, laquelle se situait à époque récente aux alentours du 10 septembre[113].

Même si l'exemple est isolé, il est probable que ces recommandations ne s'appliquaient pas seulement aux personnes de faible constitution : non seulement l'expression de Sammêtar (l. 17-20) concernant les saisons propices aux voyages semble avoir une portée générale, mais il est probable qu'on évitait à la troupe des déplacements ou combats en pleine chaleur – sauf en cas de nécessité comme le rappelle l'expression « qu'il fasse chaud ou froid » (*ina umšim û ina kuṣṣim*) déjà mentionnée[114].

L'automne et le printemps, deux saisons propices aux voyages malgré de rares difficultés liées aux précipitations

En comparaison avec les lettres mentionnant des difficultés pour voyager en hiver et en été, les exemples de difficultés causées par les précipitations durant les saisons de transition (printemps et automne) sont relativement rares (et, sauf erreur de ma part, limitées aux archives de Mari).

voyageront pendant le mois xii [février-mars]. Ils atteindront (leur) destination au mois i [mars-avril] » Mon interprétation de ce texte difficile suit celle proposée par Van Buylaere 2009 : 302-303, où l'on trouvera la référence aux études antérieures.

108 Radner 2003 : 43 n. 19.

109 SAA 5 272 : (r. 1) [A.AN.M]EŠ *ina* UGU-*hi-šú* (2) [*i*]-*za-num* : *šúm-mu qar-hu* (3) *ina* UGU-*hi-šú* : *la iq-ru-hu* (4) *ina meš-la-a-ti ša* ITI ZÍZ (5) *nu*$^{!}$*-ra-ma* « À présent les pluies tombent dessus ; si le verglas ne se forme pas dessus, nous pourrons partir à la mi-xi. »

110 Le fait est expressément mentionné à l'occasion de l'insolation de la jeune épouse de Yasmah-Addu, Dâm-hurasî, rapportée par ARM 26/2 298 ; cf. Charpin / Ziegler 2003 : 87.

111 ARM 26/1 14 : (5) *aš-šum* KASKAL.A *ša às-qú-du-um i-il-la-ku* (6) *ù be-el-ti ú-ša-al-la-mu* (7) *še-me-e-ku-ma* MUNUS.MEŠ *ma-da-tum-ma* (8) *it-ti be-el-ti-ia i-la-ka* (9) *ù* MUNUS.MEŠ *ša i-il-la-ka na-ar-ba* (10) *ù ge-er-rum šu-ú ma-ad-ba-rum da-an* (11) *ú-ul ša a-la-ak* u_4*-mi an-nu-tim* (12) u_4*-mu an-nu-tum da-an-nu* (13) *as-sú-ur-ri i-na ṣú-ú-mi-i*[*m*] (14) [*n*]*a-pí-iš-tum ú-lu mi-im-ma* (15) *i-ga-al-li-il-ma* (16) *wa-ar-ka-nu-um ši-ir be-lí-ia* (17) *i-na-az-zi-ik a-li-ik ge-er-ri* (18) *ša-a-tu* ITI *an-né-e-em ú-ul i-la-ak* (19) *i-na d*[*i-š*]*i-im ú-lu ha-ra-ap-tim* (20) *ge-er-ra-am ša-a-tu i-la-ku* (21) *ge-er-rum* [*i-na*] ITI *an-né-e-em* (22) *la-a il-*[*la-ak* IT]I *an-nu-um* (23) *a-di* U_4 5.KAM *i-ga-am-ma-ar* (24) ITI *e-ri-ba-am* ITI ^{d}IGI.KUR (25) U_4 10-KAM *ú-lu* 5.KAM-*ma* u_4*-mu* (26) *i-ka-aṣ-ṣú-ú pu-ra-tum* (27) [*m*]*e-šu i-ma-al-la-a ù a-na a-la-kim* (28) [*o-o*]-*x-ib i-na* u_4*-m*[*i-š*]*u* « Je suis informé du voyage que doit faire Asqûdum, où il doit mener à bon port ma reine. Beaucoup de femmes iront avec ma reine et les femmes qui vont venir sont délicates. Or cette route représente un désert pénible, où il ne faut pas faire route en ce moment. C'est une période dangereuse. J'ai peur que du fait de la soif, il n'y ait dommage de personne ou de quoi que ce soit d'autre. Par la suite, mon seigneur en concevra des regrets. Ce n'est pas en ce mois-ci que va quelqu'un qui prend cette route : c'est au printemps ou à l'automne, que l'on va par cette route. L'expédition ne doit pas se faire ce mois-ci. Ce mois-ci dans cinq jours sera fini. Le mois prochain, au mois vi, le 10, voire même le 5, les jours fraîchiront et l'Euphrate commencera sa crue. Cela conviendra pour se déplacer. »

112 Kerbé 1987 : 191 et tableau VI-28.

113 Reculeau 2002 : 531, fig. 4. Ce texte détient l'une des clefs pour la synchronisation fine entre le calendrier mariote et notre calendrier moderne, et s'il faut envisager que le mois vi corresponde grossièrement au mois de septembre, il est remarquable qu'aux yeux d'Asqûdum, comme à ceux des climatologues modernes, c'est ce dernier qui marquait l'entrée dans l'automne (*haraptum*).

114 Voir ci-dessus, n. 70.

Cela est en accord avec les différentes mentions, étudiées plus haut, de trajets à réaliser « avant l'hiver » (*lâma kuṣṣim*) – donc en automne –, ou à l'inverse repoussés de l'hiver (*kuṣṣum*) au printemps (*dîšum*) suivant. De même, plusieurs lettres témoignent que le printemps était la saison des batailles par excellence. Ainsi le général Yassi-Dagan enjoint-il à deux reprises à Zimrî-Lîm d'entreprendre une expédition militaire en Djéziré dès les premiers beaux jours : la première contre les Ešnunnéens en ZL 4 (1771 BCE)[115], la seconde contre Kurdâ et ses alliés en ZL 6 (1769 BCE)[116]. De même, Hâya-Sûmû d'Ilân-ṣurâ (dans le triangle du Habur[117]) demande à son suzerain de « monter » en Djéziré « au tout début du printemps » (*ana pân dîšim*)[118], mots que l'on retrouve chez Yarîm-Lîm d'Alep jurant à son ennemi Yašûb-Yahad qu'il va venir mettre le siège à sa capitale, Dêr (en Transtigrine)[119]. Contextuellement, cette expression peut donc se comprendre comme signifiant « dès le début de la saison guerrière ». Dans un registre plus pacifique, Sammêtar indique, à propos de la route entre Alep et Mari que doit prendre l'équipage de la reine Šiptu, qu'elle ne doit pas être empruntée en été, mais « au printemps ou à l'automne » (*ina dîšim û lû ḫaraptim*)[120]. Paradoxalement, du fait que les deux saisons intermédiaires étaient les plus favorables, nous ne sommes que peu renseignés sur les conditions de voyage à ces moments de l'année, selon le principe bien établi que les lettre mentionnent avant tout les situations anormales et/ou problématiques.

Les exceptions sont rares : pour l'époque amorrite, je ne connais qu'un seul exemple de pluie printanière ayant affecté des activités militaires, dans la région de Qamichli à la frontière entre le plateau du Triangle du Habur et le piémont du Ṭūr ʿAbdīn. Il s'agit d'une lettre citée par J.-M. Durand qui date de l'époque du Royaume de Haute Mésopotamie, au moment des combats entre Išme-Dagan et les Turukkéens. Ces derniers avaient trouvé refuge dans la ville de Nithum[121], au mois vii*/Awîlîya[122], soit février-mars – une période où de nos jours les pluies sont fréquentes dans la région. En l'état actuel de nos connaissances, le problème posé par l'arrivée des pluies n'est pas clair : furent-elles suffisamment virulentes pour obliger l'armée turukkéenne à un repli dans une ville dont il est par ailleurs précisé qu'elle était en ruine, ou bien avaient-elles valeur de (mauvais) augure pour les combats à venir ?

En ce qui concerne les pluies d'automne, une lettre de Hammu-rabi de Kurdâ à Zimrî-Lîm rapporte comment les intempéries ont un temps empêché Šarriya de se rendre chez son allié mariote[123] depuis sa capitale Razamâ (du Yussân), au nord du Djebel Sindjār[124]. L'épisode date du

115 LAPO 17 545 (A.1025) : (82) [*iš-t*]*u*$^{!}$ *u*$_4$*-mu iṭ-ṭì-bu-ma qa-tum iš-ta-ah-nu* (83) [^{giš}TUKU]L.MEŠ *it-ti* LÚ ÈŠ.NUN.NA^{ki} *i ni-pu-úš* « [M]aintenant que le temps est redevenu beau et que la main se réchauffe, il nous faut combattre les Ešnunnéens. » La lettre n'est pas précisément datée, mais elle se situe vers la fin de l'année ZL 4 (Durand 1998 : 152, n. u) au texte 545 ; Charpin / Ziegler 2003 : 201), au moment où les Yaminites faisaient peser une menace sur les Bords-de-l'Euphrate, contraignant Zimrî-Lîm à abandonner temporairement le combat contre Ešnunna en Djéziré (voir le détails des événements en Charpin / Ziegler 2003 : 194-206). La phrase citée suggère que l'on devait se trouver aux alentours du mois xii (février-mars) de ZL 4 (1771 BCE), ou au tout début de l'année ZL 5 (1770 BCE).

116 LAPO 17 336 (ARM 2 130) : (34) [*be*]*-lí dan-na-tim li-iš-ku-un* (35) [*ṣ*] *a-ba-am i-na qa-ti-šu* (36) *be-lí li-iṣ-ba-at-ma* (37) *ša i-na u*$_4$*-um di-ši-im* (38) *ma-a-at i-da-ma-ra-aṣ ka-la-š*[*a*] (39) *a-na i-di-šu tu-úr-ri-im* (40) *be-lí li-p*[*u*]*-uš* « Il faut que mon Seigneur donne des ordres exprès, qu'il prenne les troupes à sa disposition et qu'il fasse ce qu'il faut pour faire revenir de son côté, au moment du printemps, le pays de l'Ida-Maraṣ, tout entier. » Pour le contexte de cette lettre, rédigée à la fin de l'année ZL 5 (1770 BCE), voir Charpin / Ziegler 2003 : 207 et n. 341.

117 Ziegler / Langlois 2016 : 161-163.

118 ARM 28 83 : (3') [*i-na-an-n*]*a šum-ma a-w*[*a*]*-tum*$^{!}$ *iš-tu ma-*[*a-tim š*] *a-pí-il-tim* {x x} (4') [*ṭ*]*à-b*[*a*] *ša a-na pa-an di-ši-im* [*e-le*]*-ka* (5') *ep-ša-am* « À présent, si les nouvelles (venant) du Bas-Pays… sont bonnes, fais en sorte de [monter] au tout début du printemps. »

119 LAPO 16 251 (A.1314) : (30) *i-na-an-na a-na pa-ni di-ši-im a-la-kam-ma* (31) *i-na* KÁ *a-bu-ul-li-ka ap-pa-*<*la*>*as-sà-ah* « En réalité, j'arriverai au tout début du printemps et je m'installerai à ta grand' porte. » Sur ce texte et les controverses qu'il a suscitées, voir Charpin 2004b : 285-286 et n. 1493.

120 ARM 26/1 14, citée ci-dessus, n. 111.

121 Durand 1998 : 88 n. a) au texte 496 : « L'événement militaire est raconté dans A.3131 : suite à la pluie "les Turukkéens se sont réfugiés à Nithum qui est au-dessus d'Amaṣ, dans le pays de Šunâ" (*ina ni-it-ḫi-im*^{ki}, *ša elênu Amaṣ*^{ki} *ina mât Šunâ*^{ki} *imidu*).). Or il est précisé que "la ville de N[ithum]. où ils se sont réfugiés, est une ruine (*ḫa-ri-ib*)". » Pour la localisation de ces différentes localités, voir Ziegler / Langlois 2016 : 19-21 (Amaz), 255-256 (Nithum) et 349-351 (Šuna).

122 Charpin / Ziegler 2003 : 114-116.

123 LAPO 18 979 (ARM 2 78) : (5) *i-na ṭup-pí-ia pa-ni-im ša a-na be-lí-ia ú-ša-bi-lam* (6) *ki-a-am aš-pu-ra-am um-ma-ami* ITI ^{d}*da-gan* (7) U$_4$ 20.KAM *i-na-as-sà-ah-ma šar-ri-ia a-hu-ka* (8) *iš-tu li-ib-bi ra-za-ma*^{ki} *uṣ-ṣé-em-ma* (9) *i-na u*$_4$*-um bi-ib-lim a-na ṣe-er be-lí-ia i-ka-aš-š*[*a-dam*] (10) *an-ni-tam a-na be-lí-ia aš-pu-ra-am* (11) *zu-un-nu ù ru-su-ú iṣ-ba-tu-šu-ma* (12) *i-na u*$_4$*-um ḫa-da-nim ša a-na ṣe-er be-l*[*í-i*]*a* [*aš*]*-pu-ra-a*[*m*] (13) *ú-ul ú-ṣé-em i-na-an-na u*$_4$*-um ṭup-*[*pí an-ni-a-am*] (14) *a-na ṣe-er be-lí-ia ú-ša-bi-*[*lam*] (15) ITI ^{d}*da-gan* U$_4$ 23.KAM *is-sú-uḫ-*[*ma*] (16) $^{!}$*ša*[*r-r*]*i-ia iš-tu li-ib-*[*bi ra-za-ma-a*^{ki}] (17) [*i*]*t-ta-ṣé-em a-na ṣe-er* [*be-lí-ia it-ta-al-kam*] « Voici ce que j'écrivais sur une tablette de moi antérieure que j'ai fait porter à mon Seigneur : "Le 20 courant du mois de Dagan (viii), Šarriya, ton frère, partira de Razamâ et arrivera chez mon Seigneur, au jour de la disparition de la lune." Voilà ce que j'écrivais à mon Seigneur. Les pluies et la *boue* l'ont retenu. Il n'est pas parti à la date que j'avais écrite à mon Seigneur. Maintenant, le jour où je fais porter cette tablette de moi chez mon Seigneur, le 23 courant du mois de Dagan (viii), Šarriya vient de quitter Razamâ et est parti pour chez mon Seigneur. »

124 Ziegler / Langlois 2016 : 287-288.

20-23/viii (octobre-novembre) de ZL 6 (1769 BCE)[125], et la venue des alliés de Zimrî-Lîm avait pour motif leur participation à la fête d'Eštar[126], laquelle avait lieu au mois ix (novembre-décembre)[127]. Sermonné par Hammu-rabi pour n'avoir pas participé aux festivités, Šarriya répond que la pluie et un phénomène naturel nommé *rusû* (soit de la boue, soit des précipitations atmosphériques)[128] l'en ont empêché. Il s'enquiert alors d'une autre fête à laquelle il pourrait se rendre pour témoigner de sa fidélité à Zimrî-Lîm[129]. Les difficultés d'interprétation du terme *rusû* limitent l'analyse, mais la saison est, en tout état de cause, sujette aux pluies, et il n'est pas inenvisageable que celles-ci aient rendu la route impraticable. La suite du texte montre que, depuis Kurdâ au sud du Sindjār[130], on pouvait relier Mari par différentes routes : l'une passant par le Bas Habur et Qaṭṭunân, l'autre par la steppe et le wâdî ʿAǧīǧ[131]. En cas de mauvais temps, en particulier pour des caravanes chargées, la première était préférée[132].

Une dernière lettre, mentionnant cette fois le transport de grain dans le nord-ouest de la Djéziré, pose problème sur le plan chronologique. On y voit en effet Išme-Dagan enjoindre à son frère de s'empresser de faire rentrer le grain à Tazuwâ[133], maintenant que le froid est là[134]. Or, cette lettre trouve sa place dans la correspondance échangée entre les deux frères suite à la victoire des troupes du Royaume de Haute Mésopotamie sur La-rîm-Numahâ, qui eut lieu à l'extrême fin d'Aššur-malik ou au tout tout début d'Awîllîya. On peut même la dater plus précisément du mois i* (août-septembre) d'Awîlîya, dans la mesure où elle ne put qu'être expédiée entre le départ d'Išme-Dagan, au tout début du mois (condition *sine qua non* pour qu'il communique avec son frère par le biais de messagers et non de vive voix), et l'abandon de la ville de Tazuwâ, décrété par Yasmah-Addu et Mut-Bisir à la fin de ce même mois[135]. Cette période n'est pas, loin s'en faut, une période fraîche dans la région, et la notion de froid (*kuṣṣum*) doit sans doute être comprise ici de façon très générale, comme signifiant la « mauvaise saison ». Mais même ainsi, il reste difficile de rendre compte de cette lettre, dans la mesure où ARM 26/1 14[136] montre que le mois vi du calendrier de Zimrî-Lîm (qui correspond au mois i* de celui de Samsî-Addu) était perçu comme le début de l'automne (*haraptum*), non comme celui de l'hiver (*kuṣṣum*).

Ce tour d'horizon des mentions d'événements météorologiques en relation avec des voyages ou des campagnes militaires dans les textes cunéiformes du deuxième et du début du premier millénaires av. n.è. montre que la circulation des hommes comme des animaux obéissait à un calendrier préférentiel assez clair : que ce soit du fait des rigueurs hivernales ou des chaleurs estivales, se dessine l'image de deux saisons propices aux voyages (printemps et automne), et de deux autres pour lesquelles il était préférable de les éviter (été et hiver). Il est notable que ces restrictions semblent avoir été valables, dans l'idéal, aussi bien pour les caravanes de marchands, d'ambassadeurs ou de femmes du harem royal, que pour les soldats envoyés au combat. Toutefois, ces derniers (et, de façon plus volontaire, certains marchands aventureux), pouvaient se voir contraints de passer outre ces recommandations et se retrouver engagés dans des opérations au cœur de l'hiver – ce qui de toute évidence était source de mécontentement au sein de la troupe. Enfin, il n'est pas inutile de remarquer que, si les contreforts montagneux du nord et de l'est étaient par essence des terrains à éviter en hiver, des précautions similaires se rencontrent pour l'ensemble de la Syrie du nord et de la Haute Mésopotamie – et même au-delà, à l'occasion de trajets depuis ou vers la Babylonie.

125 Durand 2000 : 126.

126 Durand 2000 : 124.

127 Pour la date de la fête d'Eštar, voir en dernier lieu Jacquet 2011 : 22-23.

128 Pour ce terme, voir ci-dessus, n. 54 et 55.

129 LAPO 18 979 (ARM 2 78) : (26) *ù šu-ú ki-a-am i-pu-la-an-ni um-ma* [*šu-ma*] (27) *ta-na-aṭ-ṭà-al zu-un-nu ru-su-ú iṣ-ba-t*[*u-ni*] (28) *i-na u₄-mi-im re-qí-im ma-*[*ha-ar*] *a-hi-ia* (29) *ú-ul i-si-nu-um-ma-a* « Et lui m'a fait cette réponse : "Tu le constates : pluies (et) *boue* m'ont retenu. N'y aura-t-il pas une fête chez mon frère, en un jour chômé ?" »

130 Ziegler / Langlois 2016 : 195-197.

131 Voir en ce sens le commentaire de Durand 2000 : 127 n. l) au texte 979.

132 LAPO 18 979 (ARM 2 78) : (29) *i-na-an-na it-ta-ṣé-em* (30) *pa-ni-šu a-na* KASKAL *qa-aṭ-ṭú-na-an ṣa-ab-ta-ku* (31) *um-ma-a-mi u₄-mu dan-nu* KASKAL *ka-ṣí-im na-ap-za-ra-am* (32) *aš-šum* GÚ *la ni-il-la-ak* KASKAL *li-ib-bi ma-a-tim-ma* (33) *a-na qa-aṭ-ṭú-na-nim*[ki] *ni-il-li-ik-*[*ma*] (34) KASKAL *qa-aṭ-ṭú-na-nim*[ki] *pa-ni* [*ṣa*]*-ab-ta-ku* « Aujourd'hui, il vient de partir et je l'ai guidé sur la route de Qaṭṭunân, disant : "Le temps est mauvais. Il ne faut pas que nous allions par la route qui longe la steppe, par un raccourci, à cause des bagages. Allons par l'intérieur même du pays à Qaṭṭunân !" Je me trouve avoir pris la tête de l'expédition pour Qaṭṭunân. »

133 Pour une localisation dans le nord-ouest de la Djéziré, entre Balih et Euphrate, voir Ziegler / Langlois 2016 : 362.

134 LAPO 17 770 (ARM 4 62) : (3') [*w*]*u-di ku-uš*$_x$*-ṣú-um ik-ta-áš-da*[*m*] (4') *ù še-em ša a-na ta-zu*$^{!}$*-wa-a*[ki] (5') *ta-za-bi-lu am-mi-nim a-hu-né-e* (6') *ta-za-bi-il* ANŠE.HI.A-*tam* (7') *ù ṣa-ba-am gu-mi-ra-*[*a*]*m-ma* (8') ^{1}*mu-tu-bi-si-ir pa-an ṣa-bi-*[*i*]*m* (9') [*l*]*i-iṣ-ba-at-ma še-ma ša* [*i*]*t-ti-*{x}/ *šu-nu* (10') [*iš-te-ni-iš*]*-ma li-iš-ši* « Assurément, le froid vient d'arriver et le grain que tu dois apporter à Tazuwâ, pourquoi le faire apporter en plusieurs fois ? Rassemble ta force en ânes et tes hommes ; il faut que ce soit Mut-Bisir qui prenne la tête de la troupe et qu'il emmène d'un seul coup le grain même qui se trouve chez eux. »

135 Charpin / Ziegler 2003 : 112-113.

136 Citée ci-dessus, n. 111.

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Mittelassyrische Itinerare und das Problem der Wasserversorgung auf Überlandrouten zwischen Tigris und Euphrat

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Das markanteste bekannte mittelassyrische „Itinerar" findet sich auf dem Verwaltungstext BATSH 10 Nr. 22 aus dem Archiv der Palastverwaltung des antiken Dūr-Katlimmu (Tall Šēḫ Ḥamad).[1] Der Text macht genaue Angaben über Tagesetappen und Nächtigungsorte einer *ḫurādu*-Truppe unbekannter Größe, die innerhalb von sechs Tagen von der Stadt Taidu (Tall al-Hamīdīja) im Habur-Dreieck nach Dūr-Katlimmu am Unteren Habur marschieren soll. Helmut Freydank hat zu Recht darauf hingewiesen, dass die Bezeichnung als ‚Itinerar' nicht wirklich zutreffend ist. Die Wegstrecke ist nach Art einer Anordnung (so Freydank) in der modernen Zeitkategorie Präsens/Futur formuliert.[2] Nun dient allerdings in der Assyriologie der Begriff ‚Itinerar' als Sammelkategorie für Aufzählungen oder Reihungen von Ortsnamen, die in irgendeiner Form durch eine gerichtete Bewegung verbunden sind.[3] Aufgrund ihrer Einbindung in übergeordnete Zusammenhänge können diese ganz unterschiedlich ausfallen: deskriptiv wie z.B. in Feldzugsberichten, in Briefen, Memoranda und Protokollen, oder präskriptiv wie in brieflichen Anweisungen oder in dem eingangs bezeichneten Text.[4] Es waren zumeist besondere Anlässe, die zur mehr oder weniger genauen Beschreibung von Wegrouten führten. In diesem Beitrag geht es um das Problem des Zugangs zu Trinkwasser für Mensch und Tier auf Routen, die – anders als z.B. die Strecke der *ḫurādu*-Truppe – nicht in der Nähe von Wasserläufen oder in wasserführenden Gunstzonen bzw. Räumen mit relativ dichter Besiedlung verliefen. Denn natürlich bildete der Zugang zu Trinkwasser einen entscheidenden und gegebenenfalls limitierenden Faktor – vor allem bei Unternehmungen, die über weite Strecken durch unwegsames Gelände führen mit wenig Möglichkeiten Frischwasser aufzunehmen. Zwar war es in begrenztem Umfang möglich, Wasservorräte für einige Tage mitzuführen. Doch dies bedurfte wiederum

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1 Dieser Text wurde 1983 durch W. Röllig unter dem Titel „Ein Itinerar aus Dūr-Katlimmu" erstveröffentlicht (Röllig 1983). Im Rahmen der Gesamtedition der mittelassyrischen Texte aus Tall Šēḫ Ḥamad wird er als BATSH 10 Nr. 22 (Cancik-Kirschbaum i.V.; ältere Verweise auf DeZ 2521 = BATSH 10 Nr. 1 sind entsprechend zu korrigieren).

2 Freydank 2003, S. 244-245.

3 Unter den mittelassyrischen Texten des 14. bis 10. Jh. v. Chr. finden sich keine „Itinerare" im Sinne der Genretaxonomien moderner europäischer Literaturwissenschaft. Generell sind explizite Routenbeschreibungen selten, weil die nutzbaren Wegstrecken im weitesten Sinne bekannt waren. Der für derartige Beschreibungen häufiger benutzte Begriff *Itinerar* wird in der Assyriologie in einem allgemeineren Sinne gebraucht. So fasste Dietz Otto Edzard 1977 in seiner Begriffsbestimmung s.v. „Itinerar" im Reallexikon der Assyriologie und Vorderasiatischen Archäologie darunter „(...) jegliche Texte, die über einen Weg, seine Stationen und die zeitlichen und räumlichen Distanzen Rechenschaft geben (...)" (S. 216). Das heißt, man bezieht sich in der Assyriologie mit dem Begriff *Itinerar* nicht unbedingt auf ein bestimmtes Textgenre, wie überhaupt fraglich ist, ob es *Itinerare* im strengeren Sinne als eigenständiges Genre in der keilschriftlichen Überlieferung gibt. Zu den daraus resultierenden Problemen vgl. exemplarisch Fales 2006. Porter 2006 betont den deskriptiven Charakter von ‚Itineraren' und die Notwendigkeit derartige Beschreibungen von den Routen selbst zu trennen. Ein typisches Beispiel für die assyriologische Verwendungsweise des Begriffes ist Faist 2006, S. 147-148 und passim. Zum Begriff Ortsnamenreihung und u.a. BATSH 10 Nr. 22 s. Cancik-Kirschbaum 2009, S. 133-140.

4 Zu diesen Themenkreisen bieten die Textcorpora verschiedener Epochen und Regionen reiches Material. Verwiesen sei an dieser Stelle nur exemplarisch auf Barjamovic 2011; Fales 1996; 2006; Favaro 2007; Lebrun 2008; Michel 2008; Streck 2006; Veenhof 2008. Zu den verschiedenen Parametern, die den Modus der Ortsnamenreihung beeinflussen können, vgl. Cancik-Kirschbaum 2009.

zusätzlicher Transporttiere, die ihrerseits Wasser benötigten. Bei größeren Kontingenten und weiten Strecken wie beispielsweise den Überlandrouten *zwischen* Siedlungskammern war damit das Wasserdargebot ein zentraler Reiseparameter.

Nicht selten führten diese Routen über längere Strecken durch Regionen, in denen keine festen Siedlungsstrukturen existierten. Häufig handelte es sich zudem um Regionen begrenzter Staatlichkeit, in denen Reisende einer Vielzahl von Risiken ausgesetzt waren. Manche Strecken konnten nicht zu allen Jahreszeiten in gleichem Umfang genutzt werden, da die Wegenetze nur saisonal begehbar waren.[5] Desgleichen konnten manche Strecken zwar von kleineren Gruppen, nicht aber von zahlenmäßig großen Kontingenten passiert werden, wenn beispielsweise die unterwegs verfügbaren Futtermengen begrenzt oder die Wegstrecken sehr schwierig waren. In jedem Falle aber musste trinkbares Wasser für Mensch und Tier in ausreichender Menge zur Verfügung stehen. Neben dem ganzjährigen Wasserdargebot – in erster Linie Flüsse, Kanäle, grundwassergespeiste Brunnen oder Quellen – spielt dabei gerade auch das temporäre Wasserdargebot – in erster Linie Wadis und regenwassergespeiste Wasserlöcher – eine wichtige Rolle. Die Kenntnis der Wasserdepots ist ein fester Bestandteil des kulturellen Wissens vor allem lokaler Bevölkerungsgruppen in den jeweiligen Regionen. Darüber hinaus verfügten auch die im Fernhandel engagierten Kaufleute, Karawanenführer wie auch die königlichen Schnellboten über entsprechende Erfahrungen. Allerdings findet die Frage der Wasserverfügbarkeit kaum je Erwähnung in den Routenbeschreibungen der keilschriftlichen Überlieferung. Wie so oft in der ephemeren Dokumentation sind es die besonderen Situationen, die Anlass für entsprechende Ausführungen geben. Als Beispiel für das Wissen um die Wasser-Problematik mag zunächst (1.) ein altbabylonischer Brief aus Mari dienen; im Anschluss daran werden (2.) Verbindungen zwischen Assur am Tigris und dem Westen des assyrischen Reiches betrachtet, die unter dem Gesichtspunkt der Versorgung mit Wasser auch für größere Kontingente wohl unproblematisch waren; abschließend (3.) ist auf die Direktverbindung zwischen Assur und dem Habur quer durch die Djezirah einzugehen, bei der man auf Brunnen angewiesen war.

1. Wege nach Westen – ein Beispiel aus amurritischer Zeit: ARM I Nr. 85

In diesem Schreiben setzt König Samsî-Addu (Šamšī-Adad I.) seinem Sohn Jasmaḫ-Addu in eindrücklicher Weise die logistischen Probleme einer militärischen Expedition vom Euphrat in Richtung Westen auseinander.[6] Er antwortet damit auf eine Mitteilung Jasmaḫ-Addus in einem früheren (wohl nicht erhaltenen) Schreiben, in dem dieser das geplante Unternehmen thematisiert hat. Im Folgenden werden auszugsweise die für das Thema „Wasser" relevanten Passagen aus dem Brief wiedergegeben:[7]

1-6a [*a-na Ja-ás-ma-aḫ-*^{D}IŠKUR *qí*]*-bí-*[*ma um-ma*] ^{D}U-TU-*ši-*[^{D}IŠKUR *a-bu-ka-a-ma*] *aš-šum a-la-ki-ka it-ti ṣa-bi-im* [*ta-aš-pu-ra-am*] *a-la-kum it-ti ṣa-bi-im ú-ul* [*da-a-an*] *ù at-ta ṣe-eh-re-ta a-di-ni* [KASKAL^{MEŠ} *ši-na-ti*] *ú-ul a-ta-mu-ra-at* (...)

11b-13 [*aš-š*]*u*[*m* KASKAL]^{MEŠ}*-tim ši-*[*na-ti ši-ta-a-al*] ^{12}*ù ši-ta-ap-pa-*[*ar aš-šum me-e ša i-na* KASKAL^{MEŠ}*-tim* ...] (...)

16-25b [*mu*]*-ú a-na ša-te-e um-ma-na-a-ti*[*m ki-i ma-ṣí*] [*um-m*] *a-na-a-tum ša i-la-ka ra-ap-ša* 20 *l*[*i-mi ṣa-bu-um*] *ša i-la-ka* ANŠE$^{HI.A}$ *i-me-ru-us-sí-na ù a-li*[*k pa-an u*]*m-ma-na-a-tim ši-na-ti ki-i ma-ṣí šum-ma i-n*[*a pa-ni-ka w*]*a-ar-ka-at me-e ša* KASKAL^{MEŠ}*-tim ši-na-ti la t*[*u-pa-ar-ra-as*] *ṭe*$_4$*-mu-um la ṣ*[*ú-u*]*b-bu-ut ki-i* LÚ^{MEŠ} *Up-ra-p*[*í-ju*$^{(KI)}$ *š*]*a* KASKAL-^{MEŠ}*-tim ši-na-ti a-ta-mu-ru i-ba-aš-*[*šu*]*-ú* [*i-na* L]Ú^{MEŠ} *šu-nu-ti ša* KASKAL^{MEŠ}*-tim ši-*[*na*]*-ti a-ta-mu-ru* [*tú-ru-u*]*d wa-ar-ka-at me-e ša i-na* KASKAL^{MEŠ}*-tim ši-na-ti* [*dam-qí-iš li*]*-pa-ri-su-ni-kum* (...)

60-65 [x x]-x *ša-pa-ra-am an-né-e-em aš-pu-u*[*r ... wa-a*]*r-ka-at me-e ša* KASKAL^{MEŠ}*-tim ši-na-ti da*[*m-qí-iš li*]*-pa-ri-su ṭe*]$_4$-[*m*]*a-am ga-am-ra-am-ma šu-up-ra-am ki-ma a-na zi-i*[*m ṭup-pí-ka*] *ša ta-ša-ap-pa-ra-am ṣa-bu-um i-pa-ah-hu-*[*ru...*] *ù* LÚ^{MEŠ} *ša a-na wa-ar-ka-at me-e pa-ra-si-*[*im il-li-ku*] *a-na ṣe-*{*er-*}*ri-ia ṭú-ur-dam-ma lu-uš-ta-*[*al-šu-nu-ti*] (...)

1-6a Zu Jasmaḫ-Addu sprich, folgendermaßen (spricht) Samsî-Addu, Dein Vater: Du hast mir wegen deines (geplanten) Zuges mit dem Heer geschrieben. Ein (solcher) Zug mit dem Heer ist nicht [schwierig] und du selbst bist (noch) ein Jüngling; bislang bist du unerfahren [in diesen Routen]. (...) 11b-13 Bezüglich dieser [Rout]en [erkundige

5 Für die nördliche babylonische Tiefebene charakterisieren Cole & Gasche 1999, bsd. S. 86-89 die Problematik. Zur Rolle der meteorologischen Bedingungen vgl. den Beitrag von H. Reculeau in diesem Band. Zu den textlichen Referenzen auf Wüstenquerungen in altbabylonischer Zeit am Beispiel von Palmyra vgl. ausführlich Joannès 1997.

6 Die Erstpublikation erfolgte in ARM 1, 1950 als Nr. 85; Bearbeitungen bzw. Übersetzungen bieten Durand 1987, S. 163-167; 1994, S. 307-309; 1998, S. 19-23 unter Nr. 449; zuletzt s. https://www.archibab.fr/T4411 sowie eine Photographie der Tafel in Archipix als 7274U5764.jpg.

7 Ausgelassene Passagen sind als (...) markiert, beschädigte Passagen als [...]. Zeilenzählung und Übersetzung basieren auf der aktualisierten Transliteration in archibab (s.o. Anm. 4), erklärende Anmerkungen der Verfasserin werden als <> markiert, Texteinfügungen als {}.

dich] und schicke [*wegen des Wassers auf den Routen Erkunder aus.*]

16-25b Wasser zum Trinken (für die) Truppe[n – wie viel wird benötigt?] Der Truppen, die sich aufmachen, sind viele; 20.0[00 Mann] werden sich aufmachen, die (Last-) Esel einschließlich ihrer Lasten und die Voraustruppen – wie viel wird (also) benötigt? Solange Du vor [*deinem Aufbruch*] das Wasser dieser Wegstrecken nicht [prüfen kannst], fasse keinen Entschluss! Falls Uprapäer verfügbar sind, die diese Wegstrecken kennen, schicke diejenigen von den Männern aus, die diese Routen kennen. Das Wasser dieser Wegstrecken sollen sie für Dich [sorgfältig] prüfen! [...]

(...) es folgt eine ausführliche Erörterung der drei möglichen Routen, dann heißt es weiter:

60-65 [...] diesen Brief sandte ich [Dir hiermit:] das Wasser dieser Wegstrecken soll man sor[gfältig prüfen.] Einen ausführlichen Bericht übersende mir: Gemäß [Deiner Tafel], die Du schicken wirst, wird sich das Heer versamme[ln ...] und die Männer, die [gingen] um das Wasser zu prüfen, schicke (sie) zu mir, denn ich will [sie selbst] befragen. (...)

(...) anschließend wird die Konsultation von Divinationsspezialisten empfohlen.

Für einen Marsch durch das Gebiet der syrischen Wüste waren im 18. Jh. v. Chr. offenbar drei Routen denkbar. Da hier 20.000 Mann, Tiere und Tross sowie eine Vorhut in Marsch gesetzt werden sollten, bedurfte es einer sorgfältigen Vorab-Erkundung.[8] Samsî-Addu unterstreicht diesen Punkt, indem er seinen Sohn daran erinnert, dass er bereits vor der Abreise wissen müsse, wie es sich mit der Wasserversorgung auf den unterschiedlichen Strecken verhielte, andernfalls könne er keine Entscheidung über den einzuschlagenden Weg treffen. Insbesondere müsse das Wissen über saisonale Wasserressourcen jeweils aktuell nachgefragt werden. Samsî-Addu verweist hier auf die Kenntnisse von uprapäischen Nomaden, die regelmäßig die Wüstenstrecken nutzen.

Die in diesem Brief vorgelegte Analyse des Samsî-Addu I. ist in ihrer Klarheit bemerkenswert und darf zugleich als repräsentativ gelten für die Bedingungen, unter denen Unternehmungen in Gebieten mit beschränkter Wasserverfügbarkeit durchgeführt wurden. Leider finden sich Auseinandersetzungen mit dieser Problematik in den Texten nur selten so explizit wie im Falle dieses Briefes. Hier ist es die Unerfahrenheit eines jungen Heerführers, die Anlass zu den Ausführungen gab – ansonsten handelt es sich um eine so selbstverständliche Vorsorgemaßnahme, dass sie kaum je weiter kommentiert wird.

Der Brief zeigt, dass die Existenz von Routenalternativen und das Abwägen, welche davon gegebenenfalls genutzt werden sollte, einen wichtigen Aspekt bei den Streckenplanungen bildete. Diese Möglichkeit muss bei der Auswertung von antiken Quellen für Untersuchungen zur historischen Geographie und Topographie – z.B. der Lokalisierung von antiken Wegstrecken – stets in Betracht gezogen werden. Dabei ist unbedingt zu berücksichtigen, dass eben nicht unbedingt immer der günstigste (sogenanntes Least Cost Path-Modell) oder der direkteste Weg genommen wurde, sondern Umwege und Umgehungen an der Tagesordnung waren, wie Mario Fales ausführt: „(...) percorsi eventualmente meno diretti, e magari del tutto a "zig-zag", per ubicare sedi tappa in relazione alle risorse idriche disponibili. E potrebbe essere stato questo "know-how" sulla gestione delle tappe steppiche, il grane discrimine tra la riuscita o il (parziale /totale) fallimento delle campagne militari nella zona."[9] Damit wird aber zugleich auch deutlich, dass dieses Wissen um die Wege durch die Steppe(n) unmittelbar aus der (physischen) Realität abgeleitet wird, also gewissermaßen in die Landschaft eingeschrieben ist. Aus diesem Grunde sind (nicht nur) die großen Überlandrouten über viele Jahrhunderte, ja Jahrtausende stabil. Die Zusammenschau von Quellen aus unterschiedlichen Zeithorizonten kann helfen, das teilweise fragmentarische Wissen für einzelne Perioden zu ergänzen.

2. Routen nach Westen mit gesicherter Wasserverfügbarkeit

Für die Verbindungen zwischen der auf dem Westufer des Tigris gelegenen Hauptstadt des mittelassyrischen Königreiches und den westlich davon gelegenen Gebieten zwischen Habur und Euphrat sind kaum explizite Beschreibungen bekannt. Die Rolle des Euphrats in der mittelassyrischen Territorialpolitik wird nicht zuletzt aufgrund der schmalen Quellenbasis durchaus kontrovers beurteilt.[10] Doch muss man meines Erachtens unbedingt davon ausgehen, dass die Kontrolle zumindest des östlichen Euphratufers im Bereich Obermesopotamiens im ausgehenden 14. Jh. v.Chr. zum konkreten Ziel wurde. Erste

8 Alle drei Routen starten am Euphrat: die obere (i.e. nördlichste) Strecke beginnt in *Abattum* (vermutlich Tell Thadiyain; s. Beitrag Ziegler et al. in diesem Band), die mittlere in *Ḫalabīt* (Halebije), die untere in einem weiter südlich gelegenen Ort am Euphrat, vielleicht in *Dūr-Jasmah-Addû* (s. Durand 1998, n° 449, bsd. S. 22 e). Zu den Routen und zum historischen Kontext vgl. auch Ziegler 2009, S. 187-188 mit weiterer Literatur.

9 Fales 1996, S. 143.

10 Llop 2012; Szuchman 2007, S. 40 zur Präsenz in Tall Fray.

Auseinandersetzungen mit hethitischen Truppen in der Region von Karkemiš unter Aššur-uballiṭ I. deuten dies an. Doch erst mit dem Rückgang der mittanischen Dominanz gelangte der Bereich nordwestlich der Habur-Mündung bis etwa auf die Höhe von Mardin nach und nach in die Reichweite der Könige von Assur. Auch wenn man den Anteil rhetorischer Stilmittel in assyrischen Königsinschriften nicht unterschätzen sollte, so weist doch das große historische Epitheton von Adad-nērārī I. deutlich in diese Richtung:

> [8b]*kāšid āl Taidi āl Šūri āl Kāḫat āl Amasakki āl Ḫurra āl Šudūḫi āl Nabula āl Uššukanni u āl Irridi siḫirti Kašijeri adi Eluḫat ḫalṣi āl Sudi ḫalṣi Ḫarrāni adi āl Kargamiš ša āh nār Puratti* (...) [11]
>
> (König Adad-nērārī ....), [8b] der die Stadt *Taidu* einnahm, (und) die Stadt *Kāḫat*, die Stadt *Amasakku*, die Stadt *Ḫurra*, die Stadt *Šudūḫu*, die Stadt *Nabula*, die Stadt *Uššukanni* und die Stadt *Irridu*, die Gesamtheit des *Kaššijari* bis *Eluḫat*, den Festungsbezirk von *Sudu*, den Festungsbezirk von *Ḫarrānu* bis *Kargamiš*, das am Ufer des *Purattu* gelegen ist, (...)

Die wiederholten Kampagnen seiner beiden Nachfolger in die Euphratregionen und das Habur-Dreieck legen nahe, dass es im äußersten Westen und Nordwesten des assyrischen Einflussbereiches immer wieder zu Unruhen kam – und doch: das System der Distrikte schloss zumindest seit Salmanassar I. unter anderem die Städte Ḫarrān und Tuttul ein.[12] Im 13. Jh. bildet der Euphrat zwischen Karkemiš und etwa der Ḫabur-Mündung de facto den westlichen Grenzraum des mittelassyrischen Reiches. Ein wichtiger Indikator sind hier die Funde aus Qubr Abu-al-Atiq, unmittelbar am Euphrat, die eine intensive mittelassyrische Besiedlung anzeigen und zugleich deutlich machen, dass unsere Kenntnisse der Region eben nach wie vor sehr lückenhaft sind.[13] Tall Qubr Abu-al-Atiq mit seiner ausgedehnten mittelassyrischen Siedlung liegt auf dem Ostufer des Euphrat.[14] Die dort gefundene sogenannte mittelassyrische Palastware sowie zwei *in situ* gefundene mittelassyrische Tontafeln (eine davon datiert in das Eponymat des *Abattu mār Adad-šumu-lēšir*)[15] zeigen, dass der Ort im 13. Jh. in das System des mittelassyrischen Palatialstaates integriert war. Die Siedlung verfügte über eine Ober- und eine Unterstadt. Von Tall Qubr-al-Atiq führt eine Strecke euphrataufwärts Richtung Tall Bīʿa/*Tuttul*, das im 13. Jahrhundert ebenfalls zeitweise ein mittelassyrisches Distrikt-Zentrum war, und von dort weiter an das am Euphrat gelegene Tall Fray (Tall Furray), in dem bislang kein eindeutiger Nachweis für strukturelle mittelassyrische Präsenz gegeben ist.

Die Tatsache, dass sich insbesondere südlich der Haburmündung flussabwärts immer wieder Keramikreste aus dieser Zeit auch in Siedlungen auf dem Westufer des großen Stromes fanden, bedeutet, dass zumindest in gewissem Umfang, wenngleich auch nur für kurze Zeit, mit assyrischer Präsenz gerechnet werden sollte.

Tatsächlich wurde ganz offensichtlich der Raum zwischen Tigris und Euphrat in der Antike keineswegs als Hindernis gesehen – im Gegenteil: In einem nur in Auszügen veröffentlichten Brief aus Mari (A.1248) heißt es: „Nun fürchte ich, dass Akatīja <die Gemahlin Jasmaḫ-Addus, ECK> sagen könnte: ‚Die Stadt Mari ist weit entfernt!' – Sie ist keineswegs weit entfernt. Die Stadt Mari ist für Assur wie eine Vorstadt Assurs."[16] Sieht man einmal vom metaphorischen Gehalt dieser Aussage ab, ist klar, dass die tatsächliche räumliche Entfernung zwischen den beiden Städten an Euphrat und Tigris nicht als Hindernis gesehen wurde. Als wahrscheinlichste Route von Mari nach Assur vermutete Charpin einen Verlauf „stromabwärts bis Hanat (...) von dort aus den nord-östlichen Weg durch die Steppe" bis nach Assur.[17]

Wie stellt sich der Weg nach Westen in Richtung auf den Euphrat aus der Sicht von Assur dar? Je nach tatsächlichem Zielraum und den konkreten Rahmenbedingungen standen grob drei Querungen zur Wahl. Eine wichtige Rolle spielte dabei die sich westlich von Assur erstreckende markante Geländeformation des Wādi Ṯarṯār.

Die geostrategische Bedeutung dieses Flusstales ist evident. De facto ist Wādi Ṯarṯār die wichtigste Schnittstelle in der Region für die Verkehrsinfrastruktur unmittelbar westlich des Tigris. Es bietet einerseits einen guten Ausgangspunkt für Ost–West-Verbindungen, die von Assur bzw. den nördlich davon liegenden Tigrisquerungen durch die Djezirah in Richtung auf Ḫābūr und Euphrat führen, und andererseits eine gangbare Nord–Süd-Verbindung pa-

11 RIMA.076.1:7-14 im Komposit-Text der Edition. Zur Präsenz der erweiterten Ortsnamen-Reihung ab Z. 8b (Komposit) vgl. die Synopse in RIMA S. 130. Zur Lokalisierung der einzelnen Ortsnamen vgl. die Zusammenfassungen zum Sachstand in MTT I/2 = Cancik-Kirschbaum & Hess 2016, jeweils s.v.

12 Die archäologischen Funde weisen sogar auf Formen vorübergehender Präsenz auf dem westlichen Flussufer hin, Tenu 2008; 2009.

13 Tenu 2020.

14 Kohlmeyer 1984 ; Montero Fenollós *et al.* 2009; 2010; 2011; Montero Fenollós 2015; Tenu, Montero Fenollós & Caramelo 2012.

15 Bearbeitung durch I. Marquez-Rowe.

16 Durand 1985, S. 410 Anm. 155; Charpin 2004, S. 371 mit dem akkadischen Text in Anm. 1 (zit. nach Durand 1985).

17 Charpin 2004, S. 371 mit Verweis auf Joannès 1996, S. 325. Zu Assur im Spiegel der Mari-Texte vgl. allgemein Charpin & Ziegler 2003.

rallel zum Tigris, mit der Möglichkeit weiter südlich zum Euphrat zu queren. Im Handbuch der britischen Armee vom Anfang des 20. Jhs. n.Chr. heißt es:

> „The Wādi Tartar lies about 28-30 m. W. of Qalʿah Sherghat. In this part of its course it carries water perennially, and is much frequented by the nomads of the Jezīreh, especially the Shammar, for its water, which is good, and for the pasture along its banks. The country between Qalʿah Sherghat and the Tartar is open and undulating, traversed by a number of deep wadis which have water in spring. There is much rich pasture in this region in April. The Wādi Tartar near EI-Hadr (see below) is 25-30 ft. wide, and in spring is 5-7 ft. deep. The banks are rotten. There are few places where camels can cross." Und für den südlichen Abschnitt findet man in der Einleitung: „There seems to be water (brackish ?) even in the lower (southern) part of the Wādi Tartar for at least most of the year."[18]

Man kann davon ausgehen, dass dies auch für die mittelassyrische Zeit gilt, als das System unter dem Namen *Šiššar* bekannt war.[19] Der *Šiššar* selbst war in der späten Bronzezeit noch in geringem Umfang perennierend, und es gab dort eine Reihe von kleineren Ortschaften (*Ālu-ša-ili-itti-ilu*, *Būr-rāṭāte*, *Gubbe-ekalle* und *Šadāda*). Alteingesessene Familien aus Assur besaßen dort in größerem Umfang landwirtschaftlich genutzte Flächen.[20] Wie bereits von Reculeau angemerkt,[21] dürften sich diese Flächen im Bereich des oberen *Šiššar*, d.h. nördlich der Linie Assur – Hatra, befunden haben. Dort wurde nach Aussage von Briefen aus Tall Rimāh bereits in altbabylonischer Zeit Bewässerungsfeldbau praktiziert. Die mittelassyrischen Texte erwähnen Einrichtungen zum Wasserschöpfen[22], und ein sprechender Ortsname (*Būr-rāṭāte*)[23] deutet zusätzlich auf künstliche Wasserreservoirs.[24] Informativ ist in diesem Kontext ein ethnographischer Hinweis von Siegfried Horn zur Bauart von Wasserlöchern in dieser Region im frühen 20. Jh. Er berichtet die Angaben von Beduinen, wonach in diesem Gebiet „(...) dicht beieinander viele kleine Wasserstellen vorhanden <seien>, nicht in der gewöhnlichen Art als offene Zisternen, sondern als seitlich in den Erdboden führende Wasserlöcher, wodurch das Wasser kühl gehalten wird."[25] Die in mittelassyrischen Urkunden verwendete Formulierung $^{(I_7)}$*eberti* $^{(I_7)}$*Šiššar* „Querung/Furt des *Šiššar*/ Ṯarṯār", wörtlich „anderes Ufer des *Šiššar*/ Ṯarṯār" (z.B. KAJ 14:9-10; 20:11; 135:6; 146:5; 148:3; 149:3; 151:3; 177:2; KAM 10 4:2; 15:9) sollte sich aus der Perspektive von Assur auf den Bereich des jenseitigen Flussufers beziehen und stünde im Einklang mit den Aussagen der jüngeren Königsinschriften, in denen der Fluss auch für die Nord–Süd-Verbindung jeweils überschritten (*ebēru*) wird. Die Region des Šiššar war also auch während der späten Bronzezeit teilweise besiedelt und bewirtschaftet und von Assur aus problemlos erreichbar.

Die streckentechnisch längste, aber wohl auch am stärksten frequentierte Route führte von Assur aus zunächst nach Norden (entweder Šiššar-aufwärts oder dichter am Tigris) um dann im Bereich des Sinjar/*Kašiari* Richtung Westen abzubiegen. Der große Vorteil dieser Streckenführung besteht darin, dass sie durch besiedeltes Gebiet führt, in dem u.a. Distriktzentren wie *Qaṭṭarā*, *Apku* oder auch *Karāna* mögliche Anlaufstellen bieten, bevor die Route den Sinjar entweder nördlich oder südlich umgeht. Die nördliche Variante dürfte in etwa der sogenannten Ida-Maraṣ-Route entsprechen, die M. Forlanini wiederum als eine von zwei wichtigen Wegstrecken der altassyrischen Handelskarawanen beschrieben hat.[26] Auf der Südseite des Sinjar konnten die doch wohl in dieser Region gelegenen, aber noch nicht lokalisierten Zentren Andariq (mAss Addarig) und Kurda als weitere Haltepunkte dienen. Von dort bieten sich mehrere Routen an, die auf unterschiedlicher Höhe auf den Ḫabur treffen und von dort weiter an den Euphrat führen.

Diese Nord-Route mit ihren Varianten ist eine lange bekannte Streckenführung, die unter anderem zu Beginn des 2. Jahrtausends von den assyrischen Handelskarawanen nach Anatolien genutzt wurde.[27] Die Auseinandersetzungen um die Kontrolle dieser Strecken spiegeln sich

18 *The Mesopotamian Handbook* prep. on behalf of Admirality and War Office (ed. 1917) III. Vol., S. 176 bzw. S. 13. Fales 2008, S. 181 Anm. 4 verweist auf arabische Geographen wie z.B. Ibn Serapion (um 900 AD), der den Ṯarṯār beschreibt „as a river (...) which flowed out of the lower Ǧagǧag just before its confluence with the Ḫābūr, running through the Ǧabal Sinǧār (called Ǧabal Ba'rimma) and Hatra (...) finally reaching the Tigris" (...)."

19 S. bereits Nashef 1982, S. 317 mit älterer Literatur zur Identifikation. Die Argumentation von Bagg 2000, S. 73-74 gegen diese Identifizierung ist nicht stichhaltig, s. die Widerlegung durch Reculeau 2011, S. 76-78. Für weitere Literatur und die Erwähnung des Toponyms in mittelassyrischen Quellen vgl. MTT I/2 = Cancik-Kirschbaum & Hess, S. 134-135 s.v. *Šiššar*.

20 KAJ 14:10; 20:11; 135:6; 146:5; 148:3; 149:4; 177:2; 151:3; KAM 10 4:2; 15:9.

21 Reculeau 2011, S. 77.

22 KAJ 151; dazu Postgate 2013, S. 33 Anm. 97.

23 Zur Deutung Bagg 2000, S.73-74. Zur Systematik s. Ziegler / Cancik-Kirschbaum 2017, S. 332.

24 Reculeau 2011, S. 77.

25 Horn 1922, S. 125 Anm. 2.

26 S. Forlanini 2004.

27 S. u.a. Forlanini 2006.

auch in der Korrespondenz Samsî-Addus,[28] und sie war in der Spätbronzezeit für die Eroberung Ḫanigalbats durch die Könige von Assur von entscheidender Bedeutung. Denn aus der Perspektive der Hauptstadt war eine Kontrolle der im weitesten Sinne westlich und nordwestlich des Tigris liegenden Regionen nicht nur wünschenswert, sondern eine geopolitische Notwendigkeit. Die Sicherung der Sinjar-Region und des Habur-Dreiecks waren strategische Ziele der assyrischen Expansion, die bereits unter Aššur-uballiṭ I., vor allem aber unter seinem Nachfolger Adad-nērārī I. in Angriff genommen wurden.

Die historische Perspektive dieses Trajekts zeigt eine mehrere Jahrhunderte zuvor (Jahr ZL 3) vorgenommene Analyse der geopolitischen Situation durch den Anführer der hanäischen Stämme im Sinjar-Gebiet, Ibâl-pî-El, angesichts einer drohenden Invasion des Königs von Ešnunna:[29]

> „ (...) [9-10] Sobald es <das königliche Haus von Ešnunna, ECK> Andariq eingenommen haben wird, wird es sich gegen Kurda wenden;[11] danach wird es den Sinjar queren und [12] das gesamte Land Šubartum (erobern); dieses Königshaus [14-15] wird sich in jeder Hinsicht an Samsî-Addu orientieren. [15-16] Es erweitert fortwährend seine Grenzen [16-17] und wird gegen Qaṭṭarā und Allahad vorgehen[(?)] [19] und (jede) Stadt, die es einnehmen wird, [20] wird es in Besitz nehmen."

Charpin weist daraufhin, dass der Absender des Briefes seine Analyse mit einem historischen Rückblick verbindet, welcher die vermutete Vorgehensweise des ešnunnäischen Herrschers plausibel machen soll. „La conquête du triangle du Habur ne fut pas seulement le fait de Narâm-Sîn, puis de Samsî-Addu et enfin d'Ibâl-pî-El II. Elle continua en ZL 9' avec l'aventure élamite : celle-ci commença par la conquête d'Ešnunna. Ensuite, soldats élamites et ešnunnéens s'emparèrent d'Ekallâtum, puis de Šubat-Enlil."[30] Diese auch von den assyrischen Königen im Rahmen der Westexpansion genutzte Nord-Route in Richtung auf das mittanische Kerngebiet brachte Assur in Besitz der fruchtbaren Gebiete jenseits des Sinjar. Hier bestand kein Mangel an Wasser oder Verpflegung für den Heereszug.

Um die Mitte des 13. Jhs. bildete der Euphrat den westlichen Grenzraum des assyrischen Reiches. Damit aber waren die Verbindungen zwischen dem Westreich und der Hauptstadt am Tigris sowie der sogenannten core-region, dem Gebiet um Ninive und Arbela, zentrale Achsen innerhalb des assyrisch beherrschten Territoriums. Sie dienten dem Transport landwirtschaftlicher Erzeugnisse aller Art, Rohstoffe, Halbfertig- und Fertigprodukte. Hinzu kommen militärische Expeditionen, die Verlegung von *ḫurādu*-Kontingenten, die Verbringung von Deportierten und Kriegsgefangenen, nicht zu vergessen der ganz normale Reiseverkehr von Beamten, Diplomaten, Handelsleuten etc. innerhalb der Distrikte sowie zwischen den Distrikten und der Hauptstadt Assur.[31] Nicht zuletzt nahm wohl auch Tukultī-Ninurta I. für seinen brieflich angekündigten Besuch in Dūr-Katlimmu die südliche Variante dieser Strecke, denn in dem Text heißt es, dass er in der Stadt Apqu übernachten würde (BATSH 4 Nr. 10:36-39):

> *aššum* [*ḫarrā*]*ni ša šarre ša bēlī išpuranni šarru ina ūm* 24-KÁM *ana* ^{URU}*Apki ana biādi* [...] *illaka*.
>
> „Bezüglich des [Reisewe]ges des Königs, [worüber] mein Herr mir schrieb, (verhält es sich folgendermaßen): Der König ist am 21. Tag in Apku zum Übernachten [*eingetreten und wird nach Dūr-Katlimmu*] kommen."

Angesichts des Trosses, der nach Aussage des Briefes mit dem König reist, ist klar, dass die Tagesetappen nicht sehr ambitioniert sein können und das Netz der Siedlungen für die Querung genutzt werden musste. In jedem Falle blieb dem Adressaten des Briefes, dem amtierenden *sukkallu rabû* („Großwesir") Aššur-iddin, noch hinreichend Zeit, um den Empfang des Königs in *Dūr-Katlimmu* am Habur vorzubereiten.

Die südlichste Route folgt von Assur aus zunächst dem Šišša̲r/Ṯarṯā̲r nach Süden, um dann nach Westen Richtung Euphrat abzubiegen. Ein ausführlicher Streckenbericht liegt in den *res gestae* Tukultī-Ninurta II. (890-884 v.Chr.) aus frühneuassyrischer Zeit vor.[32] Dort heißt es:

28 S. hierfür den durch Charpin 1992 publizierten Brief A.2119; beachte allerdings ibid., S. 101: „On observera aussi le silence total de cette lettre sur Aššur : on passe directement d'Ekallâtum aux villes du piémont méridional du Sinjar, comme si la domination sur Aššur n'avait pas d'enjeu stratégique."

29 A.2119 wurde ediert durch Charpin 1992. Weitere Ausgaben des Textes s. https://www.archibab.fr/T4244.

30 Charpin 1992, S. 101.

31 Gemeint sind damit nicht „Straßen" im Sinne von Linien auf einer Karte, sondern Korridore, die ein einigermaßen sicheres und ggf. schnelles Vorankommen ermöglichten. Die Dokumentation zur mittelassyrischen Zeit wird umfangreich diskutiert in Faist 2001; 2006.

32 Die Passage ist Teil einer Annalenausgabe, die 1909 in den *Annales de Tukulti Ninip II* durch Pére Scheil bekannt gemacht wurde; zwischenzeitlich kam ein zweites Exemplar hinzu, die jüngste Edition bietet A.K. Grayson in Form eines Kompositextes als RIMA.0.100.5:41-48. Der Text enthält eine ganze Reihe von philologischen Problemen, auf die ich im Rahmen dieses Beitrages nicht eingehe. In den Fußnoten werden nur unmittelbar für das Verständnis dieser Stelle relevante Punkte diskutiert. Die Überlieferung ist nicht konsistent in der Position des Subjekts (der König) als 1. Person „ich" vs. 3. Person „er". In der Übersetzung ist dies gekennzeichnet durch die Angabe er/ich bzw. ich/er; das vorangestellte Pronomen ist die im Text dominante Form. Kursiv gesetzt sind interpretierende Übersetzungsvorschläge.

[41-43]Am 26. Nissan im Eponymat des Na'id-ilī brach ich von Aššur auf. In der Steppe machte er/ich Halt und nächtigte. Von der Steppe brach ich auf und überquerte den Ṯarṯār. Er/ich machte Halt und übernachtete. Als man um die Tagesmitte das Wasser zur Gänze geschöpft hatte, hatte man (zu diesem Zweck) in der Umgebung 470 Wasserlöcher *ausgeschachtet*[33]. ⌜...⌝. Das bittere Wasser sättigte die Mägen[34] nicht.

[43-46]Von den Wasserlöchern brach er/ich auf, machte sich/mich auf (in Richtung) auf die Wüste. Am Ṯarṯār machte er/ich Halt und nächtigte. Vier Tage zog er/ich am Ufer des Ṯarṯār entlang; auf meinem Zug entlang des Ufers des Ṯarṯār tötete er/ich acht Wildstiere. Im Mündungsgebiet des Ṯarṯār machte er/ich Halt und nächtigte. Man schöpfte Wasser.

[46-48]Vom Mündungsgebiet des Ṯarṯār brach er/ich auf, durch eine Sumpfregion[35], schwieriges Gelände, zog ich/er. In der *Strauchsteppe* sichtete ich Gewässer, Wasserlöcher *schachtete man aus*. Wasser (war) reichlich (vorhanden), er/ich machte Halt und nächtigte. Alles Wasser schöpfte man Tag und Nacht." (...)

Die zitierte Passage stammt aus den Annalen des Herrschers und bildet den Auftakt einer etwa zweimonatigen militärischen Kampagne, die Tukultī-Ninurta II. im Frühling des Jahres 887 v. Chr. unternahm. Bereits Siegfried Horn hat diesen Text in seinem Aufsatz „Zur Geographie Mesopotamiens" ausführlich gewürdigt.[36] Das Heer zieht von Assur zunächst zum Ṯarṯār, sodann den Ṯarṯār abwärts und weiter bis Sippar. Dort wendet es sich euphrataufwärts und gelangt schließlich über Sūḫu und den Habur bis in das Habur-Dreieck. Es handelt sich bei dieser Expedition nicht, darauf wurde verschiedentlich hingewiesen, um einen Feldzug im eigentlichen Sinne, sondern um eine Machtdemonstration des assyrischen Königs in Verbindung mit punktuellen Straf- und Unterwerfungsaktionen. Bereits sein Vater Adad-nērārī II. hatte eine ähnliche Kampagne durchgeführt, und auch sein Sohn Assurnaṣirpal II. sollte diese Strategie wählen. Aufgrund der relativ detaillierten Routenbeschreibung mit genauen Etappenangaben wurde der Text vor allem für die Identifikation von Ortslagen am Mittleren Euphrat und am Habur herangezogen.[37]

Die Verfügbarkeit von Wasser wird in diesem Text besonders auf der ersten Etappe von Assur nach Nordbabylonien, die westlich des Tigris geführt wird, mit grosser Eindringlichkeit thematisiert. Trotz der bereits im Altertum als salzig-brackig (*marru* „bitter") beschriebenen Wasserqualität, stellt das System hinreichend trinkbare Wassermengen zur Verfügung, so dass es regelhaft als Wegstrecke genutzt werden konnte. So schreibt Horn: „Dieser Wasserreichtum des Tartargebiets wird auch für die Führung einer alten, wahrscheinlich vorislamischen Etappenstraße durch diesen Teil der Djezīre maßgebend gewesen sein, die die Herren Baumeister Bunter und Baurat Dr. Langenegger auf der Strecke zwischen dem Wādī Tartar und Tekrit während des Weltkrieges feststellten. Die einzelnen Etappenorte in etwa 20-25 km Entfernung waren im Grundriß noch deutlich zu erkennen."[38]

Die Wasserverfügbarkeit war sicher auch für Tukultī-Ninurta II. ein entscheidender Parameter bei der Wahl der Route, zumal eine Streckenführung direkt am Tigris-Ufer sich sehr offensichtlich nicht anbietet.

Auch in der Spätbronzezeit wurde der Weg durch den Šiššar nach Süden an den Euphrat und nach *Sūḫu* genutzt. Dies ist explizit dem erstmals von Ernst Weidner unter Überschrift „Assyrische Itinerare" edierten Text VAT

33 Es ist unwahrscheinlich, dass *ḫappû* hier (sowie Z.48), aufbauend auf die Grundbedeutung „zerschlagen", eine Bedeutung „zerstören" haben soll, wie z.B. Grayson in RIMA a.a.O. meint. Es gibt keinen Grund die Wasserstellen zu zerstören, und in Z. 48 ergibt sich bei Annahme dieser Bedeutung eine widersprüchliche Aussage. Zweifel an einer solchen Deutung hatte bereits Horn 1922, S. 125 Anm. 3, der eine Präventiv-Aktion gegen räuberische Nomadenstämme in Erwägung zog. Ich vermute hier eine Spezialbedeutung im Sinne von „*ausschlagen, ausschachten*", so dass an beiden Stellen die Herstellung von Gruben bzw. Vertiefungen für das Ansammeln von Sickerwasser gemeint wäre. Das Anlegen von solchen Sickerbrunnen auf Feldzügen ist z.B. durch den Brief ARM XXVI/2 n° 419 an Zimri-Lim bezeugt, in dem Jasim-Il schreibt, er habe ein tiefes Loch geschaffen und darin „ließ ich das Wasser aufsteigen" *(mê ušellima* Z. 12'), s. ARM XXVI/2 n° 419:3'-13, s. Joannès 1988, S. 307. Francis Joannès nimmt in seinem Kommentar (a.a.O. 308 unter f)) an, dass die Tiefe dieses Wasserlochs etwa 25m betragen haben müsste. Er zieht hierzu ethnographische Angaben heran, die das Vorhandensein von Wasserlöchern mit bis zu 30m, 40m, ja 80m Tiefe in der wüstenhaften Region nördlich der Linie Homs – Abu-Kemal bestätigen. Wie sich dies im 2. Jahrtausend verhalten haben mag, ist schwer zu beurteilen. Zur Ausführung von Wasserhaltebecken vgl. die ausführliche Beschreibung von Aššur-uballiṭ I. über die Erneuerungsarbeiten im Zusammenhang mit der Errichtung des *Patti-tuḫḍi*-Kanals (zur Inschrift s. jetzt die Ausgabe in http://oracc.iaas.upenn.edu/riao/ria1/Q005721/html).

34 Mit AHW I 450 s.v. *karšu*(*m*) *I / karašu II* 1.a; dagegen RIMA a.a.O. zu *karāšu* „Feldlager" – in der Übersetzung dann verallgemeinert zu „troops".

35 RIMA a.a.O. bietet keine Übersetzung, jedoch ist der Plural *ḫamāte* mit AHW I 317 s.v. *ḫammu* II 1) sicher bestimmt; der Text wurde in CAD Ḫ 69 s.v. *ḫammu* B(2) „swamp" nicht aufgenommen.

36 Horn 1922, S. 123-129.

37 Kühne 1980 passim; Kessler 1980 passim; Röllig 1983, S. 282.

38 Horn 1922, S. 125 Anm. 4 mit Verweis auf weitere Literatur.

9968+ zu entnehmen.[39] Geschildert wird, ähnlich wie in der oben zitierten Passage aus den deutlich jüngeren Annalen Tukultī-Ninurta II., die Verbindung zwischen Assur und der Euphratregion *Sūḫu* via *Šiššar* – in diesem Fall allerdings werden zusätzlich zu Zeitangaben auch Entfernungsangaben gemacht. Die Rekonstruktion der ursprünglichen Tafel (s.o. die Hinweise in Anm. 40) bedarf einer eigenständigen Behandlung, so dass im vorliegenden Zusammenhang nur das für die *Šiššar*-Route relevante Weidner-Fragment betrachtet wird. Bereits dieses Fragment bietet mehrere Anhaltspunkte für seine zeitliche Einordnung, die in der Summe für eine Datierung in die spätere mittelassyrische Zeit sprechen.[40]

1. Ein fragmentarischer Königsname in Rs.(?) Z. 12 ..]-ÉRIN.TÁḪ MAN KUR ^{D}*A-šur* weist auf assyrische Herrschernamen, die auf *-nērārī* enden. Anfangs vermutete man Adad-nērārī III.,[41] Adad-nērārī II. bzw. einen seiner Nachfolger, sowie Adad-nērārī I.[42] Aron Dornauer merkt an, dass eine Namensergänzung der Bruchstelle zu Aššur-nērārī (II.) und damit die Verbindung mit einem assyrischen König des frühen 12. Jhs. prinzipiell in Frage kommt.[43] Auch dass es sich um das Endglied einer Filiation handeln könnte, sollte nicht außer Acht gelassen werden. Paläographisch auffällig ist zudem das Nebeneinander der erst seit dem 12. Jh. gebräuchlichen Zeichens MAN und der älteren logographischen Schreibung LUGAL für „König", sowie die ältere Schreibung ^{D}A-šur statt des jüngeren $^{(D)}$*Aš-šur*.

2. In Rs.(?) Z. 8' finden sich Reste einer Datierungsformel bzw. eines Eponymennamens. Die in Schröders Autographie erkennbaren Reste ...KÁ]M$^{?}$ *li-ʳme*' $^{I.D}$*A-šur-ba-is-s*[*u*$^{?}$ ... passen zu dem Namen *Aššur-ba'issunu*. Für einen Eponymen dieses Namens wurde von Freydank zuletzt eine Einordnung „später als TN I.-Zeit, letzte Dekade der Tp I.-Zeit?" vorgeschlagen und diese mit den Spuren in KAV 21 III:8' und dem Fehlen dieses Eponymen unter den Dokumenten des Fundkomplexes M4 in Assur begründet.[44] Nun dominiert in den diesem Eponymen zugeordneten Belegen in den administrativen Urkunden (vor allem in M4) die Schreibung des theophoren Elements als *Aš-šur*, d.h. ohne Gottesdeterminativ und mit dem KV-Anlautzeichen AŠ. Diese Schreibung wird seit der Wende vom 13. zum 12. Jh. bzw. in den ersten Dekaden des 12. Jhs. als hauptsächliche Schreibung regelhaft. Das ‚Weidner-Itinerar' VAT 9968+:Rs. 8' hingegen zeigt die zuvor gebräuchliche Schreibung ^{D}*A-šur*. Das könnte dafür sprechen, dass der Eponym doch eher in das frühere 12. Jh. gehört, in der ein Nebeneinander der Schreibweisen ein geläufiges Phänomen ist.

3. Abgesehen von dem bislang unklaren Toponym ^{URU}*Tùm-sa*-x x in Vs.$^{(?)}$2'[45] sind alle erhaltenen Toponyme gut mittelassyrisch, während die Region des Wādi Ṯarṯār in frühneuassyrischer Zeit offenbar weitestgehend wüst lag (s.o. den Bericht Tukultī-Ninurtas II.).

4. Syllabar und Duktus erlauben eine Datierung in die spätere mittelassyrische Periode – auf das Nebeneinander älterer und jüngerer Schreibweisen wurde bereits oben exemplarisch hingewiesen.

Dieses in sich noch immer fragmentarische Gesamtbild deutet eher auf das 12. denn auf das 13. Jh. v. Chr. Eine jüngere Umsetzung eines älteren Textes aus der Zeit bspw. *Aššur-nērārī* I. (1426-1418) oder auch *Adad-nērārī* I. kann nicht ausgeschlossen werden, scheint mir aber wenig plausibel. Insofern scheint die Ergänzung des Herrschernamens als [*Aššur-*]*nērārī* (II.) durchaus plausibel. Auch wenn die Regentschaft mit fünf Jahren (1192-1187) relativ kurz währte, könnte man im vorliegenden Text mit aller Vorsicht die Vorlage für einen (nicht überlieferten oder nicht ausgeführten) kommemorativ-annalistischen Text vermuten.

In dem die *Šiššar*-Region betreffenden Abschnitt Vs. Z. 4b' – 17' wird das Thema „Wasser" in sehr grundsätzlich angesprochen: Das reicht von untrinkbarem Wasser über Brunnen bzw. Zisternen bis zu hinreichenden Wasser-

39 Weidner 1966, S. 43-45 und Taf. VIII. Die Autographie fertigte O. Schroeder. Die Inventarnummer des Museums deutet darauf hin, dass diese Tafel zusammen mit anderen Stücken aus dem Bereich der von Pedersén als N1 (sogenannte Bibliothek Tiglatpilesar I.), N2 oder auch dem Areal des sogenannten Prinzenpalastes N5 aufgenommen wurde. In allen Fundkontexten fanden sich Tafeln, die der mittelassyrischen Zeit zuzuweisen sind. Bei dem von Weidner als VAT 9968 edierten Fragment handelt es sich um ein größeres Mittelfragment, das beidseitig beschrieben ist. Vorder- und Rückseite sind nicht eindeutig zu bestimmen. Die Weidner'sche Rückseite ist heute in deutlich schlechterem Zustand als noch zu Zeiten der Autographie durch Schroeder. Eine photographische Aufnahme ist in den CDLI-Repositorien unter P282427 zu finden. Auf dieser Aufnahme sind zwei weitere größere Fragmente zu sehen, die – in deutlich rezenter Handschrift – die Inventarnummer VAT 9968 tragen. Das Fragment VAT 13038 (KAH 2 Nr. 145) war vermutlich nicht Teil dieser Tafel, s. bereits Bloch 2013, S. 49 mit Anm. 16 zu einer gegenteiligen Annahme von Baruchi-Unna. Die Zugehörigkeit weiterer Stücke (s. u.a. Weidner 1968, S. 77) ist im Detail zu untersuchen.

40 Deller & Postgate 1985, S. 68; Faist 2001, S. 196 Anm. 225; Faist 2006, S. 148 Anm. 5; Baruchi-Unna 2008, S. 61; Bloch 2013, S. 28; Dornauer 2016, S. 109.

41 Weidner 1966, S. 44.

42 S. z.B. Háklár 1983, S. 28.

43 Dornauer 2016, S. 109.

44 Freydank 2016, S. 126; 129; 183.

45 Lesungsvorschläge zusammengestellt in MTT II/2 = Cancik-Kirschbaum / Hess 2022, s.v. *Tumsa*.

mengen.[46] Dies bringt uns zum letzten Abschnitt dieses Beitrages, die Möglichkeit der Nutzung von Brunnen bzw. Wasserstellen, an denen Grundwasser oberflächennah austritt.

3. Brunnen zwischen Euphrat und Tigris

Es gab neben den bereits benannten Routen von Assur Richtung Westen eine sehr viel direktere Verbindung zwischen Assur und dem Unteren Habur als nächstgelegenem Siedlungsraum im Westen, und diese führte quer durch die Steppe und stieß bei Dūr-Katlimmu auf den Habur. Auch diese Verbindung dürfte schon lange vor der mittelassyrischen Zeit bestanden haben.[47] Die etwa 250 km lange Strecke durch die Djezirah führte von Assur über Hatra und Ḫirbet Dibīje oder etwas nördlich davon nach Westen. Weitere Stationen könnten beispielsweise der Bīr Mtiae, dann die Brunnen von Umm Aqrēibe sowie Ǧilib-el-Hanu gewesen sein.[48] Etwa 10-12 Tage müsste man für diese Verbindung veranschlagen. Nach der Überquerung des Habur bei *Dūr-Katlimmu* konnte man auf dem direktem Wege weiterreisen, bis man bei Tall Qubr Abu-al-Aṭiq auf den Euphrat traf.[49] Die gesamte Strecke ist durch Brunnen begleitet. Allerdings ist zweifelhaft, ob diese Route mit größeren Kontingenten nutzbar war, denn das Wasser der Brunnen ist begrenzt. Allerdings – und dies zeigt die Karte Abb. 1[50] – ist die Djezirah mit einem dichten Netz von Brunnen und Wasserstellen überzogen. Die Datengrundlage dieser Karte beruht auf Angaben, die den Sachstand bis etwa 1950 spiegeln, also vor Beginn des großflächigen Einsatzes von motorbetriebenen Pumpen. Prinzipiell haben sich die Grundwasserbestände seit dem Altertum nicht wesentlich verändert, auch wenn sich natürlich durch Geländeverlagerungen der Zugang zu einzelnen Wasserstellen verändert haben kann. Doch die Karte zeigt, dass im Prinzip bei guter Ortskenntnis die Djezirah in alle Richtungen durchquerbar war.

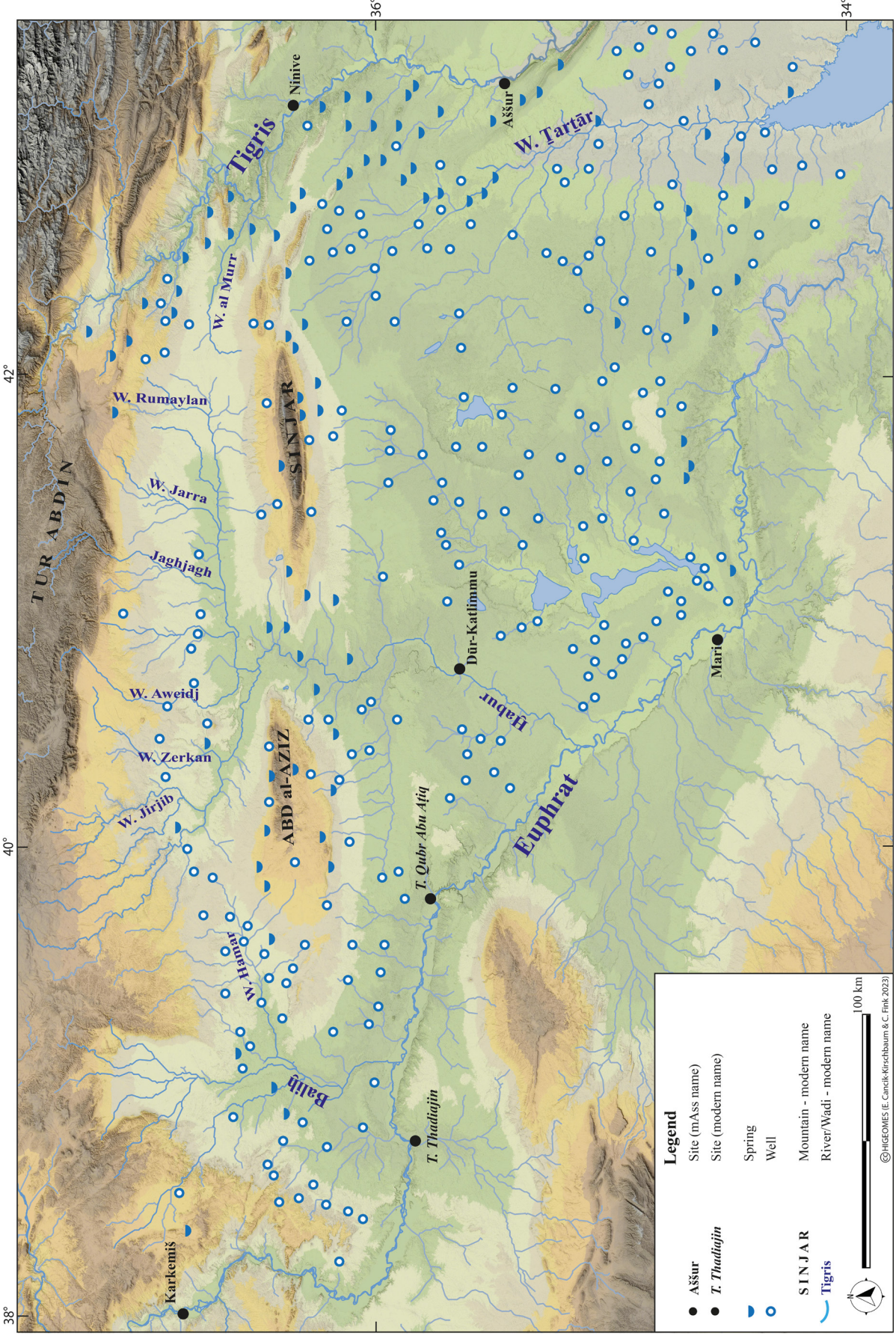
46 Bagg 2000, S. 64-65.

47 Gegen Kühne 2021, S. 304, der die Anlage dieser Verbindung als „mittelassyrisches Großprojekt" in Sachen „Straßenbau" wertet. Diese Einschätzung berücksichtigt nicht, dass natürlich auch schon vor der mittelassyrischen Zeit Verbindungen zwischen dem seinerzeitigen *Dūr-Jagid-Lim (der hanazeitliche Name von Tall Šēḫ Ḥamad ist eine Hypothese) und dem Tigris bestanden haben dürften, und überschätzt die Dimensionen der mittelassyrischen Infrastrukturmaßnahmen in diesem Bereich.

48 Pfälzner 1993, Abb. 10 – übernommen durch H. Kühne 2021, S. 304 Abb. 12.13.

49 Tenu *et al*. in diesem Band.

50 Diese Karte basiert auf Vorarbeiten von E. Cancik-Kirschbaum und Chr. Forster. Sie wurde erstellt von Christoph Fink (München), dem ich an dieser Stelle hierfür noch einmal herzlich danken möchte. Die hierin zusammengestellten Daten beruhen im wesentlichen auf folgenden Quellen: „Handbook of Mesopotamia. Vol. III". Admiralty War Staff. Intelligence Division. London. 1917. „Eastern Turkey in Asia" by Great Britain. War Office. General Staff. Geographical Section. 1:250000. London. 1915-17. „Irak 1:200000" by Generalstab des Heeres. Abt. f. Karten und Vermessung. Berlin. 1942. „Iraq, Syria" by Army Map Survice. U.S. Army. 1:200000. Waschington. 1942. „Syrien 1:200000" by Generalstab des Heeres. Abt. f. Karten und Vermessung. Berlin. 1940-41. Website https://www.geonames.org/ retrieved 10th September 2022.


38°
40°
42°
36°
34°
Karkemiš
Ninive
Aššur
Mari
Dūr-Katlimmu
T. Thadiajin
T. Qubr Abu ʿatiq
Tigris
Euphrat
Ḫabur
W. Ṭarṭār
W. al Murr
W. Rumaylan
W. Jarra
Jaghjagh
W. Aweidj
W. Zerkan
W. Jrjib
W. Hamar
Balih
TUR ABDIN
ABD al-AZIZ
SINJAR
Legend
Aššur
T. Thadiajin
Site (mAss name)
Site (modern name)
Spring
Well
SINJAR
Tigris
Mountain - modern name
River/Wadi - modern name
100 km
©HIGEOMES (E. Cancik-Kirschbaum & C. Fink 2023)

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Der Nutzen von Reiseberichten aus dem 19. und frühen 20. Jh. n. Chr. für die Rekonstruktion von Geographie, Umwelt und Wegesystemen Obermesopotamiens

Albert Dietz[1]

„ ... le plus sûr chemin d'un point à un autre n'est pas forcément la ligne droite."
(LEBEAU 2000: 159)

0. Einleitung

Das Zitat von Marc Lebeau drückt das bisherige, weitverbreitete Vorgehen bei der Rekonstruktion von Wegstrecken antiker Itinerare aus. Man verband auf einer Karte die angegebenen Etappenziele, soweit sie bekannt waren, mit Stift und Lineal bis hin zum Zielort, und daraus ergab sich die rekonstruierte Reiseroute. Jedoch lässt diese Methode die Landschaft, die Umwelt und die äußeren Einflüsse, seien sie anthropogen oder natürlich, völlig außer Acht.

Um diese vergangenen, teilweise heute nicht mehr existierenden Gegebenheiten jedoch rekonstruieren zu können, benötigt man zahlreiche Informationen über die naturräumlichen Bedingungen, die Tier- und Pflanzenwelt sowie die Einwohner und deren Siedlungen, die in einem solchen Szenario berücksichtigt werden müssen. Nicht nur antike Quellen und archäologische Befunde, sondern auch Reiseberichte der Neuzeit leisten hierfür einen wertvollen Beitrag.

Die Rekonstruktion der Geographie, Umwelt und der Wegesysteme des Altertums ist besonders herausfordernd, da aus lange vergangenen Zeiten keine Landkarten, wie wir sie heute kennen, vorliegen und antike Itinerare kaum auf solche Aspekte eingehen. Im Folgenden wird daher zuerst anhand von Reiseberichten neun verschiedener Reisender oder Reisegruppen aus dem 19. und frühen 20. Jh. n. Chr. versucht, die geographischen Bedingungen zur Zeit jener Reisen zu rekonstruieren, um dann eventuell Rückschlüsse auf die altvorderasiatischen Gegebenheiten desselben Raumes ziehen zu können. Das untersuchte Gebiet umfasst vor allem die Region der syrischen Ǧazira sowie kleine Teile des Nordiraks und der Südtürkei.

1. Die Vorstellung der Reisenden[2]

Francis Rawdon Chesney (1789–1872), britischer General, untersuchte 1830 sowie besonders 1835–36 den Verlauf des Euphrats und des Tigris, erforschte deren Schiffbarkeit

1 Ludwig-Maximilians-Universität München. Dieser Artikel basiert auf den Erkenntnissen meiner Bachelorarbeit, die an der Johannes-Gutenberg-Universität Mainz 2012 eingereicht und angenommen wurde. Die Ergebnisse wurden bereits auf der Konferenz „Itinéraires en Haute-Mésopotamie", Colloque international du projet ANR/DFG „HIGEOMES" (16.–17.03.2012) an der Université de Bourgogne, Dijon präsentiert. Für Anmerkungen zur ursprünglichen Arbeit und dem daraus entstandenen Artikel bin ich Prof. Dr. Adelheid Otto, Dr. Michael Herles, Katharina Zartner und Fabian Sarga sowie den Teilnehmer/-innen der Konferenz sehr dankbar. Etwaige Fehler verbleiben dabei ganz die meinen. Abkürzungen folgen dem *Abkürzungsverzeichnis des Reallexikons der Assyriologie und Vorderasiatischen Archäologie*.

2 Zu den Reisenden und deren Leben liegen teils ganze Biographien, teils nur skizzenhafte Darlegungen ihres Wirkens vor. Hier soll nur eine kleine Auswahl gegeben werden: Francis Rawdon Chesney (Chesney & O'donnell 1885), Heinrich Petermann (Bobzin 2001), Anne Isabella Noel Blunt (Winstone 2005), Max Freiherr von Oppenheim (Teichmann 2008), Gertrude Bell (Winstone 2004), Ernst Emil Herzfeld (Gunter & Hauser 2005), Friedrich Sarre (Herzfeld 1946), Antoine Poidebard (Nordiguian 2008), Max Mallowan (Mccall 1999). Für Eduard Sachau liegt kein biographisches Werk vor.

und ging dabei näher auf die Geographie der an diesen Flüssen liegenden Gebiete ein (Chesney 1850). Der besondere Wert seiner Arbeit liegt in der Erforschung und Vermessung der Flüsse bevor Staudammprojekte ausgeführt wurden, die seitdem Rückschlüsse auf die Flusssituation im Altertum stark eingeschränkt haben (Nützel 2004: 199–200).

Der Orientalist Heinrich Petermann (1801–1876) reiste mit der finanziellen Unterstützung des preußischen Königs von 1852 bis 1855 unter anderem durch die Türkei, Syrien, Libanon, Irak und Iran (Petermann 1865).

Einen weiteren informativen und ausführlichen Bericht verfasste die passionierte und ausgezeichnete Pferdezüchterin Anne Isabella Noel Blunt (1837–1917), die 1847–1877 zahlreiche Gebiete des Vorderen Orients bereiste, um geeignete Zuchttiere für die Erhaltung des arabischen Pferdes zu erwerben. Die für diese Arbeit relevante Reisestrecke von Aleppo nach Bagdad und zurück legte sie 1877 zurück (Blunt 1879). Sie benutzte dabei bereits die Karten von Colonel F. R. Chesney und wies darauf hin, wie schlecht dieses Gebiet bis dato erforscht war.[3]

Zwei weitere Reiseberichte stammen von dem deutschen Orientalisten Eduard Sachau (1845–1930). Die erste Reise ging hauptsächlich durch ganz Syrien, vor allem an den Flüssen Euphrat, Baliḫ und Ḫābūr entlang (Sachau 1883). Die zweite Reise führte ihn dann durch den Irak und Nordsyrien (Sachau 1900).

Max Freiherr von Oppenheim (1860–1946), Archäologe und erfolgreicher Diplomat, reiste von Beirut nach Damaskus, durch die syrische Wüste zum Euphrat, ins Ḫābūrdreieck, von dort weiter nach Mosul und dann über Bagdad bis nach Basra am Persischen Golf (Oppenheim 1899; 1900).

Ebenfalls von großem Wert für diese Untersuchung war der Reisebericht Gertrude Bells (1886–1926), Archäologin, Diplomatin, Bergsteigerin, Historikerin und Dichterin sowie eine der Schlüsselfiguren in der Staatsgründung des Iraks.[4] Ihre Orientreise im Jahre 1908 führte sie von Aleppo den Euphrat entlang nach Baghdad. Von dort ging es nach Mosul und über Diyarbakır schließlich nach Konia (Bell 1911).

Der gemeinsame Reisebericht von Ernst Emil Herzfeld (1879–1948), Architekt, Archäologe und Philologe, und Friedrich Sarre (1865–1945), Kunsthistoriker, fand ebenfalls Eingang in diese Untersuchung. Die beiden reisten 1907–1908 von Aleppo den Euphrat entlang, den Ḫābūr hinauf und anschließend den Tigris hinab bis nach Baghdad und weiter den Tigris abwärts bis zur Küste des Persischen Golfs (Herzfeld – Sarre 1920).

Von Antoine Poidebard (1878–1955), jesuitischer Missionar, Diplomat, Soldat, Pilot, Fotograf und Archäologe liegt zwar kein Reisebericht vor, aber sein Artikel über die 1925 von ihm abgeflogenen Gebiete im Ḫābūrgebiet ist von Bedeutung (Poidebard 1927).

Zuletzt werden die Berichte des Archäologen Max Mallowan (1904–1978) über seinen Ḫābūr-Survey sowie über die Ausgrabungen und den Survey im Baliḫ-Tal für die Auswertung herangezogen (Mallowan 1936, 1937, 1946).

Die aus diesen Berichten gesammelten Informationen werden genutzt, um einen Einblick in die Geographie und die Umwelt des 19. und frühen 20. Jh. n. Chr. in Obermesopotamien sowie die Reisebedingungen jener Zeit zu erlangen. Die Schreibweise für Siedlungen, Gebirge, Flüsse usw. werden jeweils vom betroffenen Reisenden übernommen.

Diese Vorgehensweise wurde gewählt, da die heutigen, streckenweise stark ausgebeuteten Landschaften nur noch bedingt Rückschlüsse auf die Umwelt des Altertums mehr zulassen. So muss die Vegetation viel reichhaltiger gewesen sein, was auch eine erhöhte Anzahl an Wildtierarten begünstigte. Anhand eines Pollendiagramms von Buāra und Bodenuntersuchungen kann man heute jedoch davon ausgehen, dass die Regenfeldbaugrenze, Niederschlag, Temperaturen und Windverhältnisse der Neuzeit mit denen um 2000 v. Chr. vergleichbar sind. Dazu gehören auch wiederkehrende Trockenperioden oder Zeiten mit mehr Niederschlag und gar einer kurzzeitigen Verschiebung der agronomischen Trockengrenze (Hole 2007: 196, Fig. 3; Kürschner 2008: 152; Kühne 2009: 22–23).

Entgegen der heutigen sah die Umwelt vor 100–200 Jahren in vielerlei Hinsicht anders aus, da die anthropogenen Einflüsse zu dieser Zeit das Land noch nicht im heutigen Ausmaß gezeichnet hatten (siehe 3.).[5] Die aus den Reiseberichten gewonnenen Informationen sind neben naturwissenschaftlichen Untersuchungen (s. Kühne 2008a) ein weiterer Weg, um dieser vergangenen Umwelt in gewissem Maße wieder näher zu kommen.

Darüber hinaus erhält man durch die Lektüre der Berichte wichtige Informationen über die Reise selbst – von der Planung bis zur Ausführung – mit all ihren Unannehmlichkeiten und Überraschungen, die bei einer einfachen Rekonstruktion der Strecke schnell in Vergessenheit geraten können. Die Festlegung der Reiseroute, die unwirtlichen Gegenden und die zwischenmenschlichen

3 „It [the Euphrates] has never been popularly described, and, since the days of Xenophon, has hardly been described at all." (Blunt 1879: 7).

4 Zahlreiche Briefe, Korrespondenzen und Tagebucheinträge finden sich online im Gertrude Bell Archiv der Universität Newcastle: http://gertrudebell.ncl.ac.uk (letzter Zugriff am 24.09.2023).

5 Siehe hierzu Kühne 2008b, 2009.

Beziehungen stellen ebenfalls entscheidende Faktoren für den Ablauf einer Reise dar, die uns bisher allerdings aus den keilschriftlichen Quellen in solcher Ausführlichkeit fehlen, wie dies Betina Faist (2006) für die mittelassyrische Zeit aufzeigte. Häufig werden bei den uns überlieferten Itineraren der Keilschrifttexte mehr die reisenden Personen, ihre zugeteilten Rationen und ihre erhaltenen Anweisungen in den Vordergrund gestellt. Von der Reiseroute erfährt man meist nur den Start- und Endpunkt oder eine Zwischenstation (Faist 2006: 147–148).

Gerade das Vernachlässigen dieser Details kann zu einer Fehleinschätzung bei Rekonstruktionen führen, denn durch geographische und klimatische Gegebenheiten sowie die begrenzte Menge an Verpflegung waren den Reisenden bestimmte Grenzen gesetzt (Córdoba 1990: 367). Auch die Reisenden des 19. und frühen 20. Jh. n. Chr. mussten sich, aufgrund der noch nicht großflächig ausgebauten Infrastruktur, auf den gleichen Erd-Pisten und Pfaden ihren Weg bahnen wie unzählige Karawanen vor ihnen (Streck 2006: 128). Selbst die zur Verfügung stehenden Lasttiere waren noch ähnlich wie im Altertum, da keinem der hier besprochenen Reisenden motorisierte Transportmittel zur Verfügung standen.[6] Die bereits genannten, eingeschränkten Kapazitäten von Nahrungsmitteln und Wasser zwingt jede Karawane gleichzeitig dazu, regelmäßig bei Städten, Militärposten oder Karawansereien Rast einzulegen, um Vorräte aufzufüllen. Sind keine Siedlungen oder ähnliche Posten vorhanden, müssen sie von einer Quelle zur nächsten ziehen, wodurch sie sich auf Routen fortbewegen, die schon seit Jahrtausenden durch die Naturbedingungen das Reisen in einem Gebiet überhaupt ermöglichen. Es entstand ein Etappenrhythmus, an den man sich mehr oder weniger halten musste (Córdoba 1990: 367). Somit darf man die Bedingungen und Erfahrungen der Reisenden des 19. und frühen 20. Jh. n. Chr. aufgrund ähnlicher Voraussetzungen in vielerlei Hinsicht auch für Teilnehmende altertümlicher Karawanen annehmen.[7]

2. Probleme bei der Arbeit mit Reiseberichten

Während der Arbeit mit den vorgestellten Reise- und Forschungsberichten traten einige Probleme auf, die es, bevor das eigentliche Thema behandelt wird, zu beachten gilt, um eine Verzerrung der Ergebnisse zu vermeiden.

Als erstes ganz allgemeines Problem ist die Subjektivität der Reisenden zu nennen. Natürlich war dies nicht von den Autoren und Autorinnen gewollt, doch ist eine Beschreibung stets eine Interpretation. So mag zum Beispiel der eine Reisende das Wasser einer Quelle als reichhaltig und wohlschmeckend beschreiben, während ein anderer gar keinen Vermerk dazu hinterlässt. Auch die Definition von lang und kurz oder nah und fern kann variieren. Als Leser/-in ist man immer auf die persönliche Wahrnehmung sowie die Qualität und Quantität der Dokumentation der Reisenden angewiesen. Ist eine genannte Örtlichkeit nur kurz beschrieben und zusätzlich nicht auf einer Karte verzeichnet, müsste man sich auf die Genauigkeit der Reisenden verlassen, da keine anderen Informationen dazu vorliegen. Die Präzision der Aussage steigt, wenn diese auch von anderen Reisenden gemacht oder gar kartiert wurde.

Eine Erweiterung dieses Problems stellen die Informationen ‚aus zweiter Hand' dar, das heißt, Berichte von Informanten oder Informantinnen über Gegenden, Orte, Quellen oder Anderes, die die Reisenden selbst nie besuchten. Solch eine Information, wie genau sie auch sein mag, kann dadurch nicht als gesichert gelten, da man ein gewisses Stille-Post-Prinzip und dadurch eine zunehmende Ungenauigkeit erwägen muss. Als Resultat wurden solche Örtlichkeiten oft von den Autoren/-innen nicht weiter beschrieben, sondern meist nur in die Karte übernommen.

Eine dritte Ebene der Subjektivität bildet meine eigene beim Aufnehmen der Punkte und Informationen. Denn wenn keine präzisen Angaben im Reisebericht gemacht oder kein eindeutiger Eintrag in der Karte angefertigt wurde, ist der durch mich gesetzte Punkt auf digitalen Karten eine reine Interpretation. Dies beinhaltet zum Beispiel Aussagen wie: „Furt bei *Stadtname*". Somit hat man weder eine Angabe, ob sich die Furt nun am Flussverlauf vor oder nach der Stadt befindet, noch weiß man, wie weit sie tatsächlich von der Stadt entfernt ist. Daher können die meisten eingetragenen Punkte, ausgenommen Siedlungen und Tells, nur ungefähr lokalisiert werden und müssten für eine exaktere Kartierung vor Ort aufgesucht werden.

Weiterhin sind die Karten, die den Reiseberichten beigefügt wurden, zwar äußerst hilfreich und anschaulich, jedoch versteht es sich, dass sie nicht so genau sein können wie heutige Karten, da man damals noch nicht auf die technischen Hilfsmittel zurückgreifen konnte, die uns heute zur Verfügung stehen. Für die damalige Zeit und den Möglichkeiten entsprechend waren diese Karten auf dem neuesten Forschungsstand, denn sie haben Gebiete erschlossen, die für die europäische Gesellschaft der letzten beiden Jahrhunderte noch größtenteils unerforscht waren.

6 Ausgenommen hiervon sind Mallowan und Poidebard, die auch nicht im gleichen Maße wie die anderen als Reisende bezeichnet werden können, da sie das Gebiet bereits zu einem späteren Zeitpunkt, während der Mandatszeit, im Zuge von Surveys und Geländeerkundungen mit Autos bzw. Flugzeugen durch-bzw. überquerten.

7 „Die sechs bis neun Stunden dauernden Tagestouren bestätigen nach Tausenden von Jahren die ehemalige Konstante." (Córdoba 1990: 367).

Die Ergebnisse sollen nicht in ihrer Bedeutung gemindert werden, müssen aber im Licht neuer technischer Möglichkeiten kritisch geprüft werden. Als Beispiel kann man die Karte II von Eduard Sachau anführen (Sachau 1883: Karte II). Auf dieser ist durch das Abgleichen der Punkte mit *Google Earth* festzustellen, dass die Längengrade falsch eingetragen wurden. Hat man somit einen Punkt nur in dieser Karte vorliegen und nicht im Bericht beschrieben, fällt es schwer, diesen korrekt einzutragen. Falls auch keine weitere Karte diesen Punkt ebenfalls verzeichnet, wird es spekulativ. Selbst die äußerst genaue und detaillierte Karte Max von Oppenheims (1900: östl. und westl. Blatt) lässt, wenn man sie georeferenziert und über die *Google Earth* Karte legt, erkennen, dass allein schon die Flüsse Ḫābūr und Baliḫ zu weit im Osten eingetragen wurden.

Ein größeres Problem stellen die Ortsnamen dar. Fast alle Ortschaften besitzen zwei Namen, wobei der eine der Name des jeweiligen Sheikhs des Ortes ist. Durch die begrenzte Lebenszeit eines solchen Oberhauptes ist es logisch, dass sich circa alle 30 Jahre dieser Name ändert und folglich Karten ebenso schnell unbrauchbar werden. Leider ist die Ablösung des Namens nicht immer so fließend wie in der Theorie beschrieben, und so konnten sich auch mehrere Sheikh-Namen einer Ortschaft ansammeln und nebeneinander weiterbenutzt werden. Der andere Name ist der der betreffenden Lokalität selbst. Eduard Sachau gibt für diese Namensverwirrung ein geeignetes Beispiel: So trägt eine Ortschaft den offiziellen Namen Djedêde, sie kann aber auch ʻAli Elkhimar oder ʻAbû-Saʻid genannt werden (Sachau 1883: 251). Wird diese Tatsache außer Acht gelassen, können viele unnötige Probleme auftreten. Trotz allem bleibt bei zu wenigen Informationen der Reisenden immer noch eine zu große Unsicherheit, ob man zwei Namen nun wirklich gleichsetzen darf. Werden diese Siedlungsnamen in verschiedenen Karten zusätzlich mit Abweichungen voneinander verzeichnet, ist es vom Schreibtisch aus schwer zu entscheiden, ob es sich nun tatsächlich um dieselbe Örtlichkeit handelt.

Ein letztes Problem stellt die Übersetzung dar. Englische und französische Wörter können im Deutschen mehrere Bedeutungen haben, die in diesem Fall jedoch entscheidend sind; dasselbe ist auch umgekehrt der Fall. So kann *well* (engl.) oder *fontaine* (frz.) im Deutschen Brunnen oder Quelle heißen. Die gleiche Ungewissheit findet sich bei dem englischen Wort *passage*. Dies kann unter anderem die Bedeutung Furt oder Überfahrt besitzen. Wird dieser Punkt vom Reisenden nicht genauer beschrieben oder in der Karte nicht mit einem klar definierten Symbol versehen, ist es nicht möglich diesen Punkt mit Gewissheit zu definieren.

3. Allgemeine Informationen über Geographie, Umwelt und Wegesysteme anhand der behandelten Reiseberichte

Neben den Informationen, die sich in eine Karte eintragen lassen, finden sich in den Reiseberichten zusätzlich wertvolle Beschreibungen über die Planung und Durchführung einer Reise; Dinge die man beim Reisen beachten muss, die Geographie einiger Gebiete sowie deren Flora, Fauna und Bewohner. All diese Informationen sind wertvolle Angaben, die nur schwer in einer Karte verzeichnet werden können. Da diese Aspekte auch in antiken Itineraren in der Regel keine Erwähnung finden, soll in diesem Beitrag der Schwerpunkt hierauf gelegt werden.

3.1 Die Vorbereitung der Reise – Angaben über Karawanen

Gerade die Angaben der Reisenden über ihre Karawanen zeigen deutlich, dass sich seit dem Altertum an den Reisebedingungen im Vorderen Orient nicht viel geändert hatte (Abb. 1). Bei der Zusammensetzung der Karawanentiere gibt es in der Neuzeit eine bessere Verfügbarkeit und mehr Kombinationsmöglichkeiten als im Altertum, da sowohl das Pferd als auch das Kamel[8] später als der Esel[9] domestiziert wurden und vor allem Pferde ab dem 18./17. Jh. v. Chr. zwar auch im Militär eingesetzt wurden, dennoch lange mehr als Prestige-Objekt zu repräsentativen Zwecken und nicht als Lasten- und Transporttier dienten (Becker 2008: 81).

Jedoch ist der Umfang einer Karawane in etwa gleichgeblieben. So umfasste die Karawane von Anne Blunt sechs Pferde und ein Maultier (Blunt 1879: 71). Die Karawane Sachaus war einer altertümlichen sehr ähnlich. Er reiste

8 Kamele wurden in der neuassyrischen Zeit, nach Eseln, aufgrund ihres unkomplizierten Verhaltens bei Reisen, guten Fleischs und Milch sowie wertvollem Dung und Wolle nicht nur als Reittier und Transportmittel unverzichtbar. Vor dem 1. Jt. v. Chr. wurden sie im Ḫābūr-Gebiet weder gehalten noch gezüchtet. Die Domestikation des einhöckrigen Kamels (= Dromedar) fand vermutlich erst in der 2. Hälfte des 2. Jt. v. Chr. im Süden oder Südosten der Arabischen Halbinsel statt. Es war von da an wertvolle Beute und gerngesehener Tribut (Becker 2008: 83–87).

9 Domestizierte Esel lassen sich in Mesopotamien bereits im 4. Jahrtausend v. Chr. fassen und sind daher die frühesten domestizierten Equiden (Becker 2008: 79). Einschränkend muss jedoch allgemein gesagt werden, dass die Bestimmung und Unterscheidung von wilden und domestizierten Equiden im Knochenmaterial sehr schwierig, wenn nicht geradezu unmöglich ist und es dabei eher auf den Kontext der Fundorte und die statistische Auswertung ankommt (Becker 2008: 77).

Abb. 1: Karawane von Gertrude Bell und anderen Reisenden, aufgenommen am 16.03.1909 in Khan al Baghdadi, Irak (© Gertrude Bell Archive, Newcastle University, Photo numbers GB/3/1/10/1/242, 243, 245, 246).

mit drei Pferden, vier Maultieren und vier Eseln (Sachau 1883: 6). Die Karawanen der Kaufleute der altassyrischen Zeit bestanden in der Regel aus bis zu maximal 18 Eseln. Diese Anzahl wird selten überschritten (Streck 2006: 131). Esel waren für Langstreckentransporte besonders gut geeignete Tiere, da sie selbst noch auf den schmalsten Pfaden vorankamen. Nach altassyrischen Texten konnte ein Esel 130 bis 150 Minen[10] transportieren (Astour 1995: 1403).

Oppenheims Karawane unterschied sich allerdings sehr von denen der Reisenden des Altertums. Sie bestand aus sechs Pferden, einigen Reitkamelen und zwölf Lastkamelen (Oppenheim 1899: 79).

Auch wenn es bei den Reisenden der Neuzeit nicht immer reine Eselskarawanen waren, so ist dennoch die Reisegeschwindigkeit ähnlich geblieben, da sich gewöhnlich mit Schrittgeschwindigkeit fortbewegt wurde. Die Reisegeschwindigkeit bildet einen bedeutenden Faktor, wenn man (altorientalische) Itinerare rekonstruieren möchte. Das mögliche Streckenpensum eines Tages bestimmt die Wahl sowie die Verfügbarkeit eines geeigneten Rastplatzes, was unter Umständen auch eine kürzere oder längere Tagesetappe vorschreibt. Daher ist darauf bei dem Versuch

10 65–75 kg. Eine Mine entspricht im hier untersuchten Gebiet zumeist 500 g (Powell 1987–1990: 510, 514). Nach Streck (2006: 127) können Esel bis zu 90 kg tragen und damit 20 km am Tag zurücklegen.

der Rekonstruktion einer Reiseroute besondere Aufmerksamkeit zu legen.

Herzfeld und Sarre berechneten für einen Reiter 100 m pro Minute und 6 Kilometer pro Stunde, eine Karawane lege in einer Stunde 5,59 km zurück (Herzfeld – Sarre 1920: 112). Dies erscheint mir jedoch, im Vergleich zu einem einzelnen Reiter, etwas zu viel, da sich allein durch die Kontrolle mehrerer Tiere sowie durch die Last der Waren Verlangsamungen nicht vermeiden lassen. Im Gebirge betrage die Reisegeschwindigkeit einer Karawane lediglich 4,73 km pro Stunde. Für antike und islamische Angaben rechnen beide mit circa 5,124 km pro Stunde (Herzfeld – Sarre 1920: 112), ohne anzugeben, aus welchen Informationen sie diese Angaben erschließen.

Auch Oppenheim gibt ähnliche Angaben bezüglich der Reisegeschwindigkeit. Für einen Reiter erwähnt er ebenfalls 6 Kilometer pro Stunde. Ein Lastzug benötige für 4–4,5 km eine Stunde (Oppenheim 1900: 9).

Oppenheims errechnete Reisegeschwindigkeit stimmt nahezu mit der von Córdoba bestimmten Reisegeschwindigkeit von Karawanen Altvorderasiens überein (Córdoba 1990: 367).[11] Denn Córdoba nennt ein Tagespensum von 25–30km, was bei sieben bis acht Stunden Reisedauer ungefähr 3–4 km pro Stunde ausmacht (Córdoba 1990: 367). Ein Tagespensum von 25–30 km erwähnt auch Hallo bezüglich des Itinerars „The Road to Emar" (Hallo 1964: 63). Somit scheint die Entfernung, die man innerhalb eines Tages zurücklegt, für neuzeitliche nicht motorisierte Reisende ähnlich geblieben zu sein, wenn man von einer Reisedauer von 7–8 Stunden pro Tag ausgeht.

3.2 Anthropogene Einflussnahme auf die Wahl der Route

Zu den wichtigen Vorbereitungen einer Forschungsreise gehört nicht nur die Zusammenstellung einer Karawane, sondern auch die Festlegung einer Reiseroute. Hierbei muss man sowohl auf die geographischen Gegebenheiten, als auch auf die politischen Spannungen und gefährliche Gebiete achten.

So wurde zum Beispiel Anne Blunt vor Beginn ihrer Reise geraten, dem Weg der Dampfloks von Aleppo nach Bagdad zu folgen, da die Straßen bei Diyarbakır und Mosul aufgrund der Nomaden zu unsicher seien und die Wege zudem zu nahe am damaligen Russland–Türkei-Konflikt lägen (Blunt 1879: 18). Auch Max von Oppenheim musste, obwohl das Gebiet von Deyr nach Mosul durch Karawanenstraßen, die südlich des Sindjar-Gebirges verliefen, gut erschlossen war, diese Region meiden. Der Grund dafür waren häufige Überfälle von Beduinen[12] und den Bewohnern des Sindjars, den Jeziden (Oppenheim 1900: 6).

Catherine Marro (2004) hebt die Schwierigkeiten sehr gut hervor, die sich beim Versuch ergeben, alte Wegesysteme und Reiserouten zu rekonstruieren. Die Wiederherstellung der Wegenetze werde durch sehr instabile politische Verhältnisse erschwert, da die Nutzung von Reiserouten sehr von der vorherrschenden politischen Macht und deren Interessen abhinge. Diese fluiden Umstände lassen sich heute unmöglich fassen und präzise kartieren. Eine logische Konsequenz ist, dass sich im Altertum Wegstrecken ergaben, die uns heute unnötig erscheinen oder Umwege aufweisen, die wir nicht erklären können, wenn diese für uns überhaupt erkennbar sind. Genauso gibt es aber auch in der Neuzeit Gebiete, die gemieden werden müssen, die jedoch im Altertum problemlos passierbar gewesen sein konnten (Marro 2004: 92).

Wie man vor allem bei Oppenheim sah, sind und waren Beduinen beziehungsweise Nomaden sowie sogenannte Bergvölker ein dauerhafter und schwer berechenbarer Unsicherheitsfaktor für Reisende.[13] Dies führt dazu, dass der kürzeste Weg nicht unbedingt am sichersten war. Für Händler und Karawanen waren bei der Festlegung einer Route noch Steuern und Spannungen zwischen einzelnen Städten von Bedeutung, weshalb günstig gelegene Siedlungen dennoch umgangen werden mussten. Die Folgen einer politischen Instabilität und andauernder Unsicherheit

11 Berittene Boten waren dementsprechend schneller unterwegs, da sie allein und ohne Güter reisten. Nach Informationen aus Texten von Tell Ḫuwēra legte ein Bote in einem zweirädrigen Wagen 30–40 km am Tag zurück. Mit der Möglichkeit jeden Tag Pferde zu wechseln kann man auf diese Weise sogar 80 km am Tag schaffen, da man einen Erholungstag für die Pferde einspart (Faist 2006: 156). In diesem Artikel sollen jedoch die Mittelwerte für Karawanen als Grundlage dienen.

12 Zu den einzelnen Stämmen schrieb Oppenheim ausführlich in seinem großen Werk ‚Die Beduinen'. Die Beduinenstämme aus Mesopotamien und Syrien beschrieb er in seinem ersten Band (Oppenheim 1939). Zur Situation der Nomaden in den Steppen seit der französischen Mandatszeit und ihre Verwaltung durch den syrischen Staat siehe Bretan 2007, 2012.

13 Siehe hierzu auch Blocher 2012. Zu den amurritischen Nomadenstämmen und deren Verbindung zu den politischen Mächten der 1. Hälfte des 2. Jt. v. Chr. siehe Charpin & Ziegler 2003. Zur sozio-ökonomischen Struktur amurritischer Nomaden am Mittleren Euphrat siehe Streck 2002. Allgemein zum Thema Nomaden und Sesshafte im Alten Orient siehe den Band der 46. RAI zum Thema „Nomades et sédentaires dans le Proche-Orient ancien" (Nicolle 2004) sowie eine interdisziplinäre Publikation des Oriental Instituts zu „Nomads, Tribes, and the State in the Ancient Near East" (Szuchman 2009).

in einer Region führte auch zu einer niedrigen Bevölkerungsdichte in derselben (Lebeau 2000: 158–159). Folglich wird eine Reise durch solche Gebiete durch einen Mangel an Siedlungen, die sichere Raststätten zum Auffüllen der Vorräte aufweisen, erschwert.

So musste zum Beispiel Sachau seine Expedition den Lauf des Ḫābūrs aufwärts abbrechen, da er aufgrund fehlender großer Siedlungen seine Karawane nicht mit Lebensmitteln versorgen konnte und das Rasten in Zelten aufgrund der Kälte unzumutbar wurde (Sachau 1883: 294). Die niedrige Bevölkerungsanzahl jener Region fiel auch anderen Reisenden auf. Trotz der starken Sonne und den Regenfällen, die für reiche Ernten verantwortlich waren, waren Herzfeld und Sarre sowie Mallowan überrascht, dass das ganze Gebiet des oberen Ḫābūr kaum besiedelt war (Herzfeld & Sarre 1920: 189; Mallowan 1937: 93). Diese Entvölkerung hing mit dem Einfluss und der starken Präsenz der Nomaden in islamischer Zeit zusammen. Eine ernsthafte Wiederbesiedlung begann erst wieder in den 1960er Jahren. Die letzten festen Siedlungen im unteren Ḫābūr-Gebiet gab es im 16. Jh. n. Chr. Dazwischen waren besonders das untere Ḫābūr- und das Steppengebiet nahezu allein den Nomaden überlassen (s. u.) (Kühne 2008b: 215).[14]

Somit ist zu erkennen, dass politische und andere anthropogene Aspekte seit jeher einen starken Einfluss auf die Wahl einer Reiseroute hatten. Man denke allein nur an die Einschränkungen, die heutzutage durch festgelegte Staatsgrenzen bei einer Reise auferlegt werden, oder wie gerade in besagtem Gebiet durch Staatsgrenzen und Konflikte Reisen extrem erschwert sind. Hinzu kommen auch noch zahlreiche ethnische, religiöse und politische Konflikte, die manche Gebiete, obwohl gut erschlossen und leicht begehbar, unpassierbar werden lassen.

3.3 Hinweise aus Reiseberichten zur Geographie, Flora und Fauna der Ǧazira

Im Folgenden sollen kurz Geographie und Umwelt der Ǧazira[15] umrissen werden, da sie den Schwerpunkt für diese Untersuchung bilden. Nacheinander werden die Gebiete der Flüsse Euphrat, Ḫābūr und Baliḫ vorgestellt, wobei das Bild, das sich uns in heutiger Zeit präsentiert, dem gegenübergestellt wird, welches die ausgewählten Reisenden an den Flussregionen antrafen. Dadurch wird deutlich, wie schnell sich ein Gebiet unter anthropogenem Einfluss verändern kann (Hole 2007). Dies soll vor allem veranschaulichen, dass es vom heutigen Standpunkt aus kaum mehr möglich ist, präzise Rückschlüsse auf die antike Geographie anzustellen.

3.3.1 Das Euphrat-Tal

Im Gebiet flußabwärts vom sogenannten Euphratknie ungefähr in der Nähe von Meskene/Emar teilt der Euphrat die syrische Wüstensteppe im Südwesten von der Ǧazira im Nordosten. Die Hochterrassen der Wüstensteppe fallen steil zum Euphrattal hin ab. Die Wasserführung des Euphrats schwankt natürlich im Sommer und Winter stark, jedoch ist interessant, wie sehr selbst die Zahlen für die letzten Jahrzehnte voneinander abweichen. Laut Werner Nützel kann die Wassermenge im Winter bis zu 1800 m³/sek und im Sommer mindestens 260 m³/sek betragen und wird, außer durch moderne Staudammprojekte, auch durch andere Faktoren wie Niederschlagsmenge, Jahresmitteltemperaturen und Verbrauch für Landwirtschaft beeinflusst (Nützel 2004: 24); Eugen Wirth, der in den 1960ern die syrische Geographie erforschte, gibt allerdings noch wesentlich höhere Werte an.[16] Die unterschiedliche Niederschlagsmenge sommers und winters kann einen Pegelunterschied von bis zu 4 m ausmachen, wodurch das Tal häufig überschwemmt ist. Die fruchtbare Schwemmerde des Flusses war schon in vorgeschichtlicher Zeit der Grund für den Standort vieler Siedlungen am Fluss.[17] Jedoch führte der fehlende Schutz vor Beduinen- und Mongolen-Einfällen (letzterer 1260 n. Chr.) zu einer Entvölkerung des lange dicht besiedelten Tales. Erst im 19. Jh. n. Chr. begann wieder eine langsame Neubesiedlung

14 Noch bis 1978 lebten Bewohner teilweise transhumant (Kühne 1991: 27).

15 Für eine geographische Eingrenzung des Gebietes siehe Kühne 2009:19.

16 Eine Bestimmung der natürlichen Wasserführung ist gerade durch die zahlreichen Staudammprojekte in der Türkei und Syrien nicht mehr möglich (s. TAVO A V 4). Die Regulierung der Wassermenge mit all ihren Folgen ist ganz dem Menschen unterworfen (Jones *et al.* 2008: 66, Fig. 4; Gleick 2014: 333, Fig. 1) und wurde somit zu einem konfliktreichen Politikum (Gleick 2014). Wirth (1971: 109–110) führte vielleicht deshalb noch teils abweichende Werte an: Der Höchststand wird in den Frühjahrsmonaten nach der Schneeschmelze erreicht und kann bis zu 5000 m³/sek betragen. Als Tiefstand im Sommer gibt er 250 m³/sek an. Die durchschnittliche Wasserführung berechnet er bei 840 m³/sek.

17 Die breiten Flussauen des Euphrats sowie des Tigris' funktionieren wie kleine Alluvialebenen. Sie besitzen einen hohen Grundwasserspiegel, da sie von älteren, geologischen Formationen umgeben sind. Im Altertum lagen die Flüsse jedoch höher, weshalb das Flussbett breiter war. Heute haben sich die Flüsse eingetieft und ehemalige Flussauen abgespült (Nützel 2004: 13).

Abb. 2: Das Euphrattal bei Ḥalebîje (Sachau 1900, 140, Abb. 29).

durch Halbnomaden (Gerster & Wartke 2003: 141–144; Hole 2007: 197, Table 3).

Da der Niederschlag in dieser Gegend unter 200 mm im Jahr liegt, kann man nur in Flussnähe Landwirtschaft betreiben (Wirth 1971: Karte 3 und 5). Um das Wasser dauerhaft zu sichern, wurden in den letzten Jahrzehnten am Euphrat und Ḫābūr Staudämme gebaut. Durch die Staudamm-Projekte zwischen 1960 und 1990 gingen große Flächen des fruchtbaren Euphrat-Flusstales mit zahlreichen archäologischen Stätten für immer unter (Akkermans & Schwartz 2003: 11).

Ein ganz anderes Bild des Euphrats und dessen Umgebung bieten uns noch Sachau und Blunt. Der ganze Euphrat war zum Zeitpunkt ihrer Reise von einem Tamarisken-Dschungel umgeben. Das Euphrat-Tal soll vor 1850 n. Chr. einen Grünstreifen von über 300 m besessen haben, in dem viele Tiere lebten (Wirth 1971: 134–135). So wird das Zeltlager von Anne Blunt am Euphrat nachts von Löwen umschlichen, und sie hört die Rufe der Schakale, die sich im Dickicht des Tales verstecken. Darin befanden sich auch zahlreiche Vogelarten (Blunt 1879: 77–83). Sie beschreibt, dass die Bewohner des Euphrat-Tals eng mit der Natur zusammenlebten und dass die Hütten der Afadle, eines Araber-Stamms, aus Tamariskenzweigen in die Dickichte hineingebaut seien, wodurch sie in einem natürlichen Labyrinth nahezu verschwänden (Blunt 1879: 78).

Sachau erwähnt besonders die große Zahl an Wildschweinen, die vor allem nachts in dem sumpfigen Boden des Tamarisken-Dschungels umherstreife. Sehr ausführlich beschreibt er eine Wildschweinjagd zwischen Haraqla und ar-Raqqa (Sachau 1883: 35, 245). Bereits 17 Jahre später, während seiner zweiten Orientreise, bemerkt Sachau selbst, wie sich die Fauna am Euphrat verändert habe (Abb. 2). Grund dafür waren die verbesserten Anbaumethoden der „Suwaje-Araber", der damaligen Bewohner des Euphrat-Tals. Dadurch wurden die Tamarisken-Wälder sowie die Wildschweine zurückgedrängt.[18] Der Löwe sei schon zu dieser Zeit in diesem Gebiet ausgestorben gewesen (Sachau 1900: 146), allerdings gibt es unterschiedliche Behauptungen zum Verschwinden von Löwen in dieser Region.[19] Unbestreitbar wurde durch den Vegetationsrückgang den Tieren die Nahrungsgrundlage, aber auch der Schutz des Dickichts entzogen. In den zunehmend dichter bevölkerten Gebieten war der Löwe zudem immer mehr eine Gefahr für die Herdentiere geworden (Kock 2008: 32). Die Einführung von Schusswaffen in der Mitte des 19. Jh. n. Chr. beschleunigte diesen Prozess stark (Bartosiewicz 2009: 4). Dadurch bietet sich heute am Euphrat ein ganz anderes Bild als vor gerade einmal 100–200 Jahren.

Weiterhin muss man auch die Unbeständigkeit der Flussführung bedenken. Das gilt nicht nur für den Euphrat, jedoch gaben Herzfeld und Sarre ein anschauliches Beispiel zu diesem Fluss. Bei Balis (Meskene/Emar) floss der Euphrat zunächst direkt an der Stadt entlang. Um 1200 n. Chr. war er bereits 8 km davon entfernt, und im Jahr 1907 n. Chr. waren es nur noch 3 km. Diese Flussverschiebung hat im Fall von Balis zum Verfall der Stadt geführt

18 Auch wenn den Wildschweinen durch fehlende Tamariskendickichte der Schutz genommen war, waren sie noch bis in die französische Mandatszeit bei Dēr az-Zōr anzutreffen. Danach sind nur noch vereinzelte Sichtungen im Ḫābūr-Gebiet belegt (Kock 2008: 32). Im gesamten Euphrat- und Tigrisgebiet sind sie allerdings heute noch oft anzutreffen, da sie in den sumpfigen Flussufern in Schilf, Büschen und Bäumen Schutz und im Schlamm Muscheln als Nahrung finden (Becker 2008: 101).

19 Man findet unterschiedliche Angaben darüber, wann der letzte (asiatische) Löwe (*panthera leo persica*) in Syrien abgeschossen oder gesichtet wurde. Generell lässt sich zusammenfassen, dass dies Ende des 19. oder zu Beginn des 20. Jh. gewesen sein muss (s. TAVO A VI 13.1). Kock (2008: 32) gibt an, dass Löwen bis vor 1914 am Ḫābūr noch anzutreffen waren. Bartosiewicz (2009: 4, Fig. 2) liefert für mehrere Regionen Referenzdaten: In den 1850ern wurde der letzte Löwe in der Region um Mosul gesichtet, 1870 in der Südosttürkei, 1891 westlich von Aleppo, und 1918 gab es noch Sichtungen im Südirak. Masseti gibt bisher das früheste Datum für den letzten Löwen: demnach gab es Löwen am Euphrat nur bis zum 12. Jh. n. Chr. (Masseti 2009: 230). Im 2. und 1. Jt. v. Chr. waren sie in den Steppen aufgrund des reichen Angebots an Huftieren durchaus häufig vertreten (Becker 2008: 106).

(Herzfeld – Sarre 1920: 128–129) und zeigt, welche Folgen Flussverlagerungen immer gehabt haben können.

3.3.2 Das Ḫābūr-Gebiet

Der Ḫābūr besaß früher eine mittlere Wasserführung von 50 m³/sek. (Kühne 2009: 20). Das bis zu 150 km weite Ḫābūr-Dreieck bietet sehr fruchtbaren Boden. Der Djebel ʻAbd-el-Aziz im Westen und der Djebel Sindjar im Osten trennen den oberen Ḫābūr vom unteren und bilden darüber hinaus auch eine geoklimatische Grenze, da hier die Regenfeldbaugrenze (200mm Isohyete) verläuft (Kühne 2009: 19). Die Flussauen des Ḫābūr sind in der Regel 1–3 km und der Fluss selbst 50–60 m breit (Becker 2008: 65). Das Wasser des Flusses sowie das Grundwasser sind salzhaltig,[20] weshalb bei der Wahl der anzubauenden Pflanzen auf gute Salzverträglichkeit geachtet werden muss. Um eine Versalzung der Böden zu verhindern, muss mit der Anlage von Drainagen gearbeitet werden (Nützel 2004: 26–27, Abb. 29). Die Wasserversorgung außerhalb des Flusstals ist schwieriger, da das Wasser der Brunnen noch salzhaltiger ist (Hopfinger 1991: 54, Abb. 38–39). Durch den stark mäandrierenden Verlauf des Ḫābūr verlagert sich sehr häufig das Flussbett und hinterlässt Altarme, die bei genug Niederschlag oder Hochwasser wieder vollaufen können (Kühne 2008b: Abb. 13:09). Bei solchen Überschwemmungen werden der Ḫābūr und seine Wadis schnell zu einem Sumpfgebiet, was als eine „(...) nicht leicht zu überwindende natürliche Barriere“ (Kühne 2008b: 216) fungiert. Führt der Euphrat ebenso Hochwasser, dann kann dies zu einer Aufstauung des Wassers führen, die das gesamte Mündungsgebiet bis nach Tell Schech Hamad überschwemmt (Kühne 2008b: 216). Im Altertum muss dies noch unberechenbarer gewesen sein, was ein Grund dafür sein könnte, warum man während regenreicher Monate oder der Schneeschmelze Reiserouten im oberen Ḫābūr-Gebiet wählte.

Zeugen der Konsequenzen von Flussverschiebungen wurden auch Herzfeld und Sarre, als sie feststellten, dass ältere Karten, die sie bei sich führten, den Verlauf nicht mehr korrekt angegeben haben und sie daher Gebiete teilweise neu aufnehmen mussten (Herzfeld – Sarre 1920: 113).

Die Ḫābūr-Quelle befindet sich bei Ras el-ʻAin (Abb. 3). Bei ihr handelt es sich um eine Gruppe von dreizehn nahe beieinander entspringenden Quelltöpfen, und sie gehörte zu den ergiebigsten Karstquellen der Welt (Wirth 1971: 109–110), doch ist die Quelle heutzutage versiegt (Kühne 2008b, 2009: 20).[21] Chesney benennt die Quelle als Al Zahríyah, die sich eine Tagesreise westlich von Mardin befinde (Chesney 1850: 49).

Abb. 3: Sicht auf Ras el-ʻAin mit dem Quellteich des Ḫābūr, 1899 (© Sammlung Oppenheim, 29/22 S. 2).

Das Ḫābūr-Dreieck wurde bis ins 20. Jh. n. Chr. hinein nur durch Flussbewässerung mit Hilfe großer Wasserräder (arab.: nuria) bewirtschaftet (Abb. 4). Seit den 1960er Jahren wurde ein übermäßiger Bewässerungsfeldbau zunehmend intensiviert (Hole 2007: 199, Fig. 7). Hierfür wurden in der Ǧazira gar die Grundwassernutzungsbeschränkungen aufgehoben (Kühne 2008b: 215). Besonders Wasserpumpen sind für eine rapide Verminderung des Wasserstandes verantwortlich. Dadurch fällt eine regelmäßige Überschwemmung und Reaktivierung der Altarme aus, die Wasserführung ist bedroht und seit 1978 gibt es kaum Wasser im Süden (Kühne 1991: 27). Seit 1984

20 Siehe hierzu TAVO A II 5.

21 „Der größte Nebenfluss des Euphrats, der Ḫābūr, ist seit dem Jahr 2000 n. Chr. tot.“ (Kühne 2008b: 216). Die Karsttöpfe laufen nicht mehr über und liefern nur noch durch maschinelle Beihilfe Wasser. Hierfür wurden Pumpboote installiert (Kühne 2008b: 216, Anm. 16, Abb. 13:05).

Abb. 4: Wasserrad an der Quelle ʿAin el-Kebrit, eine Schwefelquelle des Ḫābūrs, 1929 (© Sammlung Oppenheim 29/15.20 S.27b).

Abb. 5: Ansicht des Tell Halaf vor der Grabung, davor der Ḫābūr und der Bewuchs am Ufer (© Sammlung Oppenheim, 29/19 S.90).

herrscht am unteren Ḫābūr aufgrund der Überpumpung[22] eine unsichere Wasserversorgung durch den Fluss (Hopfinger 1991: 53). Seit Beginn des 21. Jh. n. Chr. kommt es immer häufiger vor, dass der untere Teil des Ḫābūr gar kein Wasser mehr führt (Kühne 2008b: Abb. 13:04).[23] Die einzelnen Zuflüsse des Ḫābūr führen nur noch während der Regenzeit Wasser und verkümmern in der restlichen Zeit zu Wadis. Teilweise kam es schon zu staatlichen Pumpverboten, um die Wasserführung noch gewährleisten zu können. Dadurch waren die Landwirte allerdings gezwungen – um zu große Anbauverluste zu vermeiden – in nahegelegenen Steppengebieten trotz Verbot neue Brunnen anzulegen, was ein Absinken des Grundwasserspiegels mit sich brachte (Hopfinger 1991: 54; Kühne 1991: 28; Hole 2007: 200). Weil der Wasserstand der Flüsse im Ḫābūr-Gebiet immer weiter sank, rief die Regierung hier ebenso wie am Euphrat Staudammprojekte ins Leben. Man legte zwei künstliche Stauseen an südlich (1984 eingeweiht) und nordwestlich von Hasseke (1985 eingeweiht). Ihren Fluten fielen zahlreiche archäologische Siedlungen zum Opfer (Akkermans & Schwartz 2003: 11). Vom einstigen Wasserreichtum der Region zeugen nur noch die altorientalischen Siedlungen sowie die Beobachtungen der Reisenden vor dem 21. Jh. n. Chr.

Das gesamte Ḫābūr-Gebiet ist, sofern es keine weitere Bewässerung gibt, nahezu ausnahmslos einzig von Zwerggesträuchen überzogen, teilweise durchmischt mit Dornpolstern (TAVO A VI 1). Blunt beschrieb das Ḫābūr-Tal als Alluvial-Schwemmland, das wenig Gestrüpp und ab und zu eine Weide aufweise. Ursprünglich war das Ḫābūr-Tal mit Auenwäldern bewachsen, während sich auf den anschließenden Kalkplateaus eine Steppenvegetation ausbreitete (Kühne 2008b: Abb. 13:15; Kürschner 2008: 152). Die Breite des Flusses betrage circa 54,9 m, er sei sehr tief und besäße eine starke Strömung (Blunt 1879: 245). Oppenheim stellt erstaunt fest, dass der Ḫābūr selbst im Sommer sehr wasserreich (Abb. 5) und nur an wenigen Furten überhaupt zu überqueren sei und dort das Wasser noch bis zu den Schultern reiche (Oppenheim 1900: 12).

Sachau beschreibt, wie die Shemmar-Beduinen bei Sheddadijje den Fluss durchritten. Bereits bei tiefem Wasserstand war dies nicht ungefährlich und bei hohem Wasserstand geradezu unmöglich (Sachau 1883: 290). Blunt beobachtete eine andere Art der Flussüberquerung.

22 Zum staatlichen Wassermanagement in der Landwirtschaft, dem betroffenen Anteil der Bevölkerung und den klimatischen, politischen sowie sozialen Folgen in Syrien siehe mit weiterführender Literatur Gleick 2014.

23 Kühne (2008b: 215) nennt diese Umweltveränderungen eine „anthropogene Überformung der Landschaft", die im Versiegen des Ḫābūrs gipfelt.

Hierbei handelte es sich ebenfalls um Shemmar- (Blunt: ‚Shammar'-) Beduinen, die bei Tell Fuddrumi ein Seil an einer Weide und am anderen Flussufer an einer Tamarisken-Wurzel befestigten. An diesem Seil habe man sich auf einem quadratischen Floß, welches von acht aufgeblasenen Ziegenhäuten getragen wurde, hinübergezogen (arab. kelek, akk. *kalakku*); die Pferde und Kamele mussten jedoch schwimmen (Blunt 1879: 245). Im Altertum hat man Flüsse bereits auf ähnliche Weise überquert und befahren. Verschiedene Boot- und Floßtypen hierfür sind bekannt (Streck 2006: 129). Eine Überquerung mittels eines Strickes dokumentierte Sachau fotographisch schließlich auf seiner zweiten Reise am Tell Šeddâdî (Abb. 6): "Wir setzten auf einem Fährboot über den wasserreichen Strom und schlugen auf dem Nordufer neben der Ortschaft die Zelte auf. (...) Das Bild 27 zeigt die beladene Fähre auf dem Châbûr, die an einem Stricke gezogen wird; zur Linken die türkische Kaserne, rechts die höchste Höhe des Tells von Šeddâdî, und dazwischen am Ufer einige schwarze Beduinenzelte." (Sachau 1900, 134).

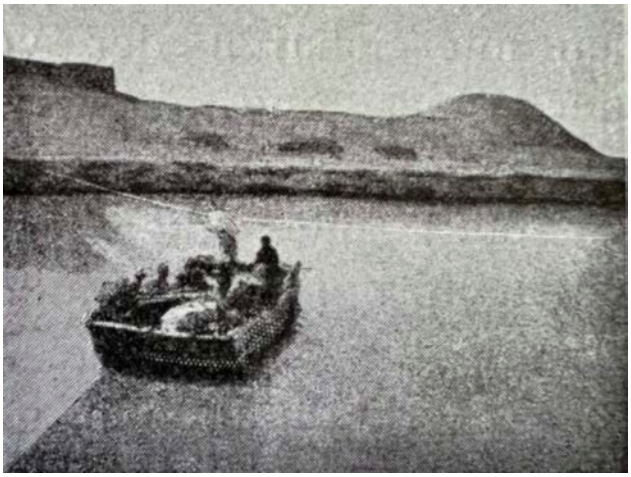

Abb. 6: Überquerung des Ḫābūr mit einer Fähre, die an einem Strick (weiße Linie) gezogen wird (Sachau 1900, 134, Abb. 27).

Sowohl die klimatischen als auch die Bodenbedingungen des oberen und des unteren Ḫābūr unterscheiden sich sehr stark voneinander (Kühne 2009: 20–22). Mallowan führt das Fehlen prähistorischer Hinterlassenschaften im unteren Ḫābūr-Gebiet auf die klimatischen Bedingungen zurück, da schon damals am oberen Ḫābūr mehr Niederschlag fiel als am unteren. Dies sei nur durch ausreichende Bewässerung auszugleichen. Die nahezu unfruchtbare Steppe südlich von Hasseke stellte schon damals eine natürliche Grenze für Menschen dar (Mallowan 1936: 3). So sorgen im Ḫābūr-Dreieck 300–400 mm Niederschlag im Jahr für sicheren Regenfeldbau. Bei Hasseke fallen nur noch 200–300 mm im Jahr und südlich davon gerade einmal 100–200 mm pro Jahr (Wirth 1971: Karte 3; Gerster & Wartke 2003: 179–180).[24] Außerordentliche Fruchtbarkeit des Bodens liegt, laut Oppenheim, am Ǧaḫǧaḥ (Dschaghdschagh), dem größten Nebenfluss des Ḫābūr, trotz fehlender Irrigation vor.[25] Dort wo man bewässere, herrsche eine üppige Vegetation. Dadurch könne man bei Nisibis sogar Reis anbauen. Bei Vernachlässigung der Wasserarme des Ḫābūrdreiecks (wie zum Beispiel des Chunes) könne dies zur Versumpfung und als Folge zu Malariaepidemien führen. Dies lasse sich jedoch durch die Regulierung der Wasserläufe vermeiden (Oppenheim 1900: 29, 36). Somit bildeten auch Epidemien einen Grund, um ein Gebiet, trotz vermeintlich guter Passierbarkeit, zu meiden.

Die Steppe südlich von Hasseke am unteren Ḫābūr war aufgrund ihres schlechten Bodens landwirtschaftlich nicht sehr rentabel. Sachau beschreibt die Ebene von Der nach Elbusêra als unfruchtbare Sandwüste. Es sei eine mit Tamariskenwäldern und Unterholz bewachsene Gegend, in der zahlreiche Wassertümpel sowie aufgeweichter Moorboden, der den Pferden starke Probleme bereitete, vorhanden seien. Die Ebene falle sehr steil zum Fluss hin ab, was das Reiten ans Ufer zu gefährlich mache. Das Ḫābūr-Dreieck hingegen sei zwar baumlos, aber sehr fruchtbar (Sachau 1883: 277, 297). Es waren aber offensichtlich nicht nur die Ebenen spärlich besiedelt, sondern auch das durchgehend fruchtbare Tal des Ḫābūr. Es gab weder Städte noch Dörfer. Wenn Niederlassungen aufzufinden waren, gehörten diese halbsesshaften Nomaden. Nur selten war es mehr als ein Zeltlager, in denen man zwar Wasser, aber keine Nahrung oder Futter erhielt (Sachau 1900: 134).

Herzfeld und Sarre beschrieben das untere Ḫābūr-Gebiet als eine endlos ebene Steppe, die meist wüstenähnlich erscheine. Der Boden habe einen hohen Anteil an Gips, Marienglas, Basaltlava und Salz, weshalb das Gebiet schon lange spärlich bewohnt und Nomaden-Gebiet sei. Am Lauf des Ḫābūr selbst fände man nur trockene Wüstenkräuter (Herzfeld – Sarre 1920: 175–176). Oppenheim führt zwar an, dass nach den Winterregenfällen überall für kurze Zeit hinreichend Futter für Kamele und Schafe wachse, aber man aufgrund des gipshaltigen Bodens selbst mit bester Bewässerung in großen Teilen dieser Gegend keinen ackerbaufähigen Boden schaffen könne (Oppenheim 1900: 2).

24 Für eine Besiedlung des unteren Ḫābūrs im 2. Jt. v. Chr. siehe Kühne (2009) und Kulemann-Ossen (2009).

25 Aufgrund von Staudammprojekten in der Türkei erreicht auch der Ǧaḫǧaḥ heute nicht mehr seinen damaligen Wasserreichtum. In den Sommermonaten ist er teils komplett ausgetrocknet (Kühne 1991: 27, 2009: 20).

Der Gipsanteil kann an vielen Stellen des Steppenanbaugebietes zwischen 25–47 %, maximal 62% betragen. Anbauflächen am Ḫābūr selbst besitzen hingegen nur einen Anteil von weit unter 5%. Der hohe Gipsanteil führt zu einer schnellen Verfestigung der obersten Bodenschicht, was ein Wachstum der Pflanzenwurzeln behindert und zusammen mit dem erhöhten Salzgehalt die Anbautätigkeit im Steppengebiet stark eingrenzt und die Erträge minimiert (Hopfinger 1991: 56, Abb. 41).

Oppenheim fand an den Ufern nur an einzelnen Stellen Gestrüpp. Er konnte jedoch nicht die von Layard (1856: 230) beschriebenen bewaldeten Ufer mit einer reichen Fauna finden. Er schließt aber nicht aus, dass der Baumbestand bereits ausgerottet sei. Genauso verhält es sich mit den Wäldern des Djebel Abd-el Aziz. Wo Layard (1856: 206) und Sachau (1883: 295) noch eine Bewaldung ausmachen konnten, erkennt Oppenheim (1900: 12, 22) aus der Entfernung keine solche Vegetation mehr.

Bis in die Spätbronzezeit (SBZ I) hinein sind die Siedlungen im Ḫābūr-Gebiet viel zu klein und verstreut, um einen verändernden Einfluss auf die Umwelt gehabt haben zu können.[26] Erste Veränderungen wie der Rückgang der Baumarten sind ab der mittelassyrischen Zeit festzustellen (Kühne 2009: 32–33; Abb. 09–10). Es beginnt der Wandel von einer Natur- zu einer Kulturlandschaft, der im 1. Jt. v. Chr. mit massiven Eingriffen wie großen Kanalbauten am Ḫābūr fortgeführt wird (Becker 2008: 114; Kühne 2008b: 217–218). Der Großteil der irreversiblen Zerstörungen fand in der frühislamischen Zeit vor dem Mongoleneinfall im 13. Jh. n. Chr. statt[27] sowie in jüngster Zeit, begonnen mit der Wiederbesiedlung ab der französischen Mandatszeit (1925–1946) und besonders durch die intensive landwirtschaftliche Ausbeutung seit den 1960er Jahren (Hole 2007: 197, 199–200, Table 3; Kühne 2008b: 218). Dadurch ist für uns die ursprüngliche Vegetation und deren damit eng verbundene Fauna nur noch in winzigen Auszügen greifbar (Becker 2008: 65).

Doch selbst der spärliche Bewuchs der Steppen wird weiterhin zerstört. Zum einen durch die Schaf- und Kamelherden der Nomaden, zum anderen durch den Brennholzbedarf dieser Gruppe.[28] Da auch die landwirtschaftlichen, künstlich irrigierten Flächen immer größere Gebiete für sich einnehmen, wird der (Lebens-) Raum der Nomaden immer weiter komprimiert, wodurch die Vegetation zunehmend weniger Regenerationszeit erhält, was zu weiteren irreversiblen Folgen führt. So nehmen die mit Pflanzen bewachsenen Flächen immer mehr ab, wohingegen Flächen, die mit Moos und Flechten bewachsen sind, sich ausbreiten (Wirth 1971: 131–132; Bretan 2007).

Auch im Norden des Landes, zum Beispiel am Westhang des Djebel Abd-el Aziz, gibt es seit der zweiten Hälfte des 20. Jh. n. Chr. nur noch wenige Reste von Pistazien- und Prunusbäumen. Hierbei soll es sich jedoch um Altbestände und nicht um Nachwuchs handeln. Selbst diese Reste wurden von Nomaden, da sie nicht viele Alternativen haben, als Brennholz genutzt (Wirth 1971: 131) und könnten daher heute bereits verschwunden sein. Auch Poidebard stellte auf seinen Flügen über die Ǧazira fest, dass die bewaldeten Südhänge des Djebel Abd-el Aziz in der Antike sicherlich mehr Bewuchs aufgezeigt hätten (Poidebard 1927: 61).

Im Ḫābūr-Gebiet war neben der Flora auch die Fauna vor gut 100 Jahren noch eine andere als heute. Oppenheim fand am Kara Tschok, einem Gebirge in Nord-Ost-Syrien nahe der irakischen Grenze, noch Wildschweine und Panther. Er merkte aber an, dass der Löwe nur bis ans Ende des 19. Jh. n. Chr. (s. o.) in Nordmesopotamien anzutreffen war (Oppenheim 1900: 146).

Gazellen waren laut Petermann (1865: 338) in Obermesopotamien im Gebiet östlich des Sindjar-Gebirges ebenfalls in großer Zahl anzutreffen. Anne Blunt soll Tausenden solcher Tiere auf dem Weg vom unteren Ḫābūr-Gebiet nach Deyr begegnet sein (Blunt 1879: 248). Heutzutage wird der Lebensraum der Steppentiere (Gazelle, Halbesel) zunehmend stark eingeschränkt (s. o.). Einerseits werden durch ausgedehnte Bewässerung immer mehr Flächen landwirtschaftlich erschlossen und andererseits verändert sich durch unkontrolliertes Weiden die Pflanzendecke zunehmend (Bretan 2007: 129; Kock 2008: 36).[29] Bei den Gazellen wird es sich vermutlich immer um Kropfgazellen handeln. Diese sind heute noch an der nordsyrischen Grenze in kleinen Gruppen anzutreffen (Becker 2008: 92).

3.3.3 Das Baliḫ-Gebiet

Die Quelle des Baliḫ befindet sich südlich von Harran. Chesney (1850: 48) nannte sie ʻAin al Dhahabiyah. Der Fluss verläuft zuerst unterirdisch, bis er bei ʻAin al-Arus wieder hervortritt. Dadurch wurde diese Quelle fälsch-

26 Siehe als Vergleich TAVO A VI 2, Vorderer Orient. Vegetation im Frühholozän (ca. 8000 B.P.). Zu dieser Zeit bestand das Ḫābūr-Gebiet hauptsächlich aus offenen Zwerggesträuchen und einer krautreichen Grasflur. Baumbewuchs fand sich allerdings nur in den Auen des Flusses.

27 Dies führte zu einer Entvölkerung und einer Re-Nomadisierung im Ḫābūr-Gebiet (Hole 2007: 197, Table 3; Kühne 2008b: 218).

28 Hierfür werden selbst Wurzeln ausgegraben, da diese besonders geeignet für Holzkohle seien (Wirth 1971: 131).

29 Zur Rekonstruktion der ursprünglichen Pflanzendecke s. Becker (2008: 65, Abb. 06:05, 113, Abb. 06:76).

licherweise von Mallowan (1946: 112) als der Ursprung des Baliḫs bezeichnet. Heutzutage kann man den Baliḫ aufgrund seiner geringen Wasserführung kaum noch als Zubringer des Euphrat bezeichnen (Gerster – Wartke 2003: 179). Zu Sachaus Zeiten war der Baliḫ noch allgemein sehr tief und selbst bei niedrigem Wasserstand nur an wenigen Stellen zu überschreiten (Sachau 1883: 240). Laut Mallowan werde der Strom bis zu 70 m breit, bevor er dann in Windungen an weichen und schilfigen Ufern bei ar-Raqqa in den Euphrat mündet; weiterhin solle der Baliḫ nie austrocknen, da er so gut wie keine Abflüsse habe (Mallowan 1946: 112).

Sachau (1883: 232) erwähnt noch, dass das breite Baliḫ-Tal, das er mit der Holsteiner Marsch verglich, von einer unfruchtbaren Steppe mit hellgelbem Boden eingerahmt werde. Im Tal selbst werde an vielen Stellen aber Reis, teilweise auch Weizen und Durra (Sorghumhirse) angebaut, jedoch sei der Ackerbau auf das flussnahe Tal beschränkt. Das Quellgebiet von ʻAin Solola liege auf oder an einer geologischen Grenzscheide, denn dort ende der fruchtbare Boden der Osrhoene (Gebiet um Harran am oberen Baliḫ) und es folge ein komplett steriler Boden. Dieser setze sich aus Sand und Gestein zusammen, wodurch ein Anbau von Feldfrüchten unmöglich sei und ausschließlich dürre Wüstenkräuter dort gedeihen könnten. Daher sei es ein reines Gazellengebiet. Diese Bodenbeschaffenheit ziehe sich bis nach ar-Raqqa an den Euphrat (Sachau 1883: 232–233).

Sachau (1883, 240) macht zudem auf die schwere Durchquerbarkeit des Flusstales aufmerksam. Zwischen ar-Raqqa und Harran dürfe man sich demnach dem Fluss nicht zu sehr nähern, da das Tal wegen der Nebenflüsse, Kanäle, Seen und Teiche und wegen des marschigen Bodens nicht begehbar sei.

In der Ebene von Urfa (Edessa), am oberen Baliḫ, liege ein rotbrauner, fetter Humus vor, auf dem Weizen besonders gut gedeihe. Dadurch lägen in dieser fruchtbaren Gegend viele Siedlungen. Die Gegend um den Nimrûd Dagh, das Gebirge nördlich des Baliḫ, sei dagegen extrem wüst und verwildert, laut Sachau (1883: 206–225) gebe es dort keinerlei Wasser oder Vegetation. Und auch der Djebel Tektek, östlich des Nimrûd Dagh, sei ein kahles und baumloses Gebirge.

Mallowan (1946: 113) beschrieb das Baliḫ-Tal in der Neuzeit als ein rein von Beduinen bewohntes Gebiet. Diese seien auch verantwortlich für die Entvölkerung des Gebietes gewesen, da sie mit ihren Herden jegliche Vegetation zerstört hätten. Mallowan entdeckte allerdings in Aufzeichnungen der Abbasiden, dass das Tal des Baliḫs reich bewaldet gewesen sei, wodurch es vermutlich nicht so sumpfig wie zu Mallowans Zeiten gewesen sei. Infolge der Sümpfe wurde das Baliḫ-Tal lange Zeit zu einem Malaria-Gebiet. Weiterhin machten die marschigen Gebiete es schwierig zu manchen Siedlungen zu gelangen.

Im Süden, an der Mündung des Baliḫ in den Euphrat bei ar-Raqqa, befände sich auch ein Sumpfgebiet, das äußerst reich an Gebüsch, Tamarisken und Süßholz sei, jedoch sei der Morast laut Herzfeld und Sarre kaum begehbar (Herzfeld – Sarre 1920: 157, 164).

Ein interessantes Beispiel für den unterschiedlich hohen Wasserstand und die Überquerbarkeit des Baliḫ bieten drei Reisende mit sehr verschiedenen Beschreibungen der Überquerung. So schreibt Sachau (1883: 249), der im Winter 1879 dort vorbeireiste, er könne den Fluss an einer Furt nahe Tell Zedan überqueren, jedoch stünde das Wasser bis an die Pferdebäuche. Herzfeld und Sarre, die im Winter 1907 bei ar-Raqqa an den Baliḫ kamen, erwähnten, dass der Fluss aufgrund der Versumpfung des Ufers unüberquerbar sei, obwohl er nur wenige Meter breit, aber sehr tief sei. Die Ufer seien durch tiefen Morast rutschig, wodurch die Pferde nicht einmal an den Fluss herankämen. Deshalb sei es ihnen nur mittels einer Fähre möglich den Baliḫ zu überqueren (Herzfeld & Sarre 1920: 157). Ebenfalls bei ar-Raqqa fand Gertrude Bell hingegen, aufgrund von ausgiebiger Nutzung des Flusswassers für Bewässerung, nur einen schlammigen Bach vor, den sie mehr oder weniger leicht überqueren konnte. Sie traf Ende Februar / Anfang März 1908 dort ein (Bell 1911: 61).

4. Fazit

Die Umwelt Obermesopotamiens hat sich aufgrund der anthropogenen Ausbeutung und der intensivierten landwirtschaftlichen Nutzung in heutiger Zeit so drastisch verändert, dass man sie schon im Vergleich zu 100 oder 200 Jahren früher kaum wiedererkennt. Wie viel mehr sie sich seit den Jahrtausenden vor unserer Zeitrechnung verändert hat, ist schwer im Detail zu ergründen, jedoch gibt es mehrere Gründe anzunehmen, dass die Bedingungen vor 200 Jahren denen des Altertums relativ ähnlicher waren als die heutigen. Daher versucht diese Studie einen kleinen Beitrag dazu zu leisten, die ‚verlorene' Umwelt wiederherzustellen, da die heutige Beschaffenheit kaum noch Rückschlüsse auf das Altertum erlaubt. So waren vor zwei Jahrhunderten die drei größten Flüsse Syriens: Euphrat, Ḫābūr und Baliḫ, noch mächtige Ströme mit fruchtbaren Tälern und einer großen Pflanzen- und Tiervielfalt, die heute kaum mehr vorstellbar ist, jedoch teilweise der durch altorientalische Texte und den in Ausgrabungen belegten Resten von Fauna und Flora mehr ähnelt.

Heute fällt es zudem schwer, die Geschwindigkeit und die Bedingungen während einer Reise in einer Karawane zu rekonstruieren. Jedoch sind diese Faktoren bis in die Neuzeit hinein lange unverändert geblieben, da ein Ausbau der Infrastruktur in Obermesopotamien vor dem

20. Jh. n. Chr. kaum stattgefunden hatte (Streck 2006: 128), und die in diesem Beitrag besprochenen Gebiete noch im 19. Jh. n. Chr. nur in geringem Maße wirtschaftlich genutzt wurden (TAVO B IX 15). Daher hatten die ausgewählten Reisenden mit ähnlich trockenen, matschigen oder steinigen Erdwegen zu kämpfen wie Karawanen vor 4000 Jahren.

Dies resultiert in einer ungefähr gleichen Reisegeschwindigkeit, da man immer noch auf ähnliche Reittiere angewiesen war. Damit einhergehend waren auch die Tagesetappen auf ähnliche Weise festgelegt, denn eine Karawane kann nur eine bestimmte Anzahl an Kilometern pro Tag bewältigen, und auch die Nahrungs- und Wasservorräte mussten regelmäßig aufgefüllt werden.

Weiterhin geben die Reiseberichte der jüngeren Vergangenheit ein plastisches Bild davon, wie wichtig es war die Risiken sowie die Kosten und Nutzen jeder Strecke zu bedenken, seien es die von Nomaden, wilden Tieren[30] oder den Jahreszeiten ausgehenden Gefahren oder Staatsgrenzen und feindliche Territorien sowie gesundheitliche Gefährdungen durch Epidemien und Krankheiten, die notfalls umgangen werden mussten. Es sind somit die (subjektiven) Erfahrungen, Eindrücke und Erlebnisse – seien sie positiv oder negativ – die während jeder Reise gemacht werden und einen essentiellen Einfluss auf die Wahl der Strecke haben, die uns in den Keilschrifttexten meist fehlen.[31] Besonders für diese meist singulären Erfahrungen sind neuzeitliche Reiseberichte die anschaulichsten Zeugnisse, die daran erinnern, die Menschen und Geschichten hinter den Itineraren mitzudenken.

30 Besonders große und größere Pflanzen sowie Fleischfresser sind in den letzten 100–200 Jahren stark dezimiert worden. Es finden sich aufgrund von Jagd, Vieh- und Landwirtschaft weit weniger Arten als zuvor (Kock 2008: 36; Masseti 2009). Größtenteils sind im Ḫābūr-Gebiet neben Schafen, Ziegen und Eseln nur noch Vögel, Nager, Insekten und Reptilien anzutreffen, was die Region als karg und leblos erscheinen lässt. Im Grabungsbefund von Dūr-Katlimmu konnten dagegen allein 43 Wildarten für die Region belegt werden (Becker 2008: 112).

31 „Sources of that nature, relevant to the cultural aspect of travel, are completely absent from our material." (Faist 2006: 159).

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Methoden

Méthodes

Methods

Du texte à la connaissance et de la connaissance aux textes

Vers une modélisation formelle des connaissances philologiques des textes paléo-babyloniens et médio-assyriens

Christophe Cruz* – Mélodie Poncet**

1. Introduction

Aujourd'hui, les ressources assyriologiques sur le Web sont nombreuses et dispersées. D'après Dominique Charpin (Charpin, 2014), elles sont réparties selon trois catégories, les publications en ligne telles que les livres, revues et forums, les instruments de travail tels que les dictionnaires et bibliographies et les sites donnant accès aux données, c.-à-d. les banques d'images, les corpus textuels, et les bases de données. Dans ce contexte, le site Web géospatial TexTelSem est singulier, car il offre la possibilité de rechercher des ressources bibliographiques géolocalisées. Cela est rendu possible grâce au positionnement sur une carte des toponymes ou des localités, des routes associées à ces toponymes, et des connaissances liées telles que des données environnementales et des contraintes directionnelles sur les toponymes non géolocalisés. TexTelSem est un projet interdisciplinaire combinant la recherche fondamentale en archéologie du Proche Orient ancien et en assyriologie à des recherches en modélisation, représentation des connaissances. Les travaux initiés lors du projet HiGeoMes[1] (Arenas *et al.*, 2015; Boochs *et al.*, 2015; Kohr *et al.*, 2013; Karmacharya *et al.*, 2013) avaient pour objectif informatique de qualifier un système d'information géographique exploitant les données des domaines de recherches philologiques et archéologiques sur la civilisation mésopotamienne. Pour donner suite au projet HiGeoMes, le projet TexTelSem[2] quant à lui se focalise sur l'exploitation des connaissances spatiales et métiers afin de mettre en œuvre les capacités de raisonnement valide et automatique des outils de **l'ingénierie des connaissances**. La plateforme Web inédite dans le domaine de la civilisation mésopotamienne offre la possibilité de visualiser des données et connaissances dans le domaine de la géographie historique provenant notamment de ressources textuelles.

Ces textes se caractérisent par un réseau dense d'informations sur les localités, les paysages et les routes. Ces informations sont explicites lorsqu'elles apparaissent dans le texte, et sont implicites lorsqu'elles sont détenues par l'expert. A l'heure actuelle, ce projet est singulier en assyriologie par l'usage qu'il est fait des technologies du Web sémantique[3]. La problématique ici est la quantité et la complexité des données philologiques et archéologiques rendant indispensable le recours à l'intégration de différentes bases de données. Cet ensemble de bases de données est composé de la base ArchiBab[4], hébergée au Collège de France et consacrée aux documents d'archives paléo-babyloniens et son pendant pour l'époque médio-assyrienne, ArchiMass, hébergée à l'Université libre de Berlin. C'est pourquoi le composant central du système développé est

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** Projet ANR Textelsem, Dijon (2015-2017).

1 http://www.agence-nationale-recherche.fr/fileadmin/user_upload/documents/aap/2010/finance/shs-anr-dfg-financement-2010.pdf

2 http://www.agence-nationale-recherche.fr/projet-anr/?solr=run&tx_lwmsuivibilan_pi2%5BCODE%5D=ANR-13-FRAL-0008

3 http://www.w3.org/standards/semanticweb/

4 http://www.archibab.fr/

une **base de connaissances ontologiques** facilitant d'une part, grâce à son **modèle de graphes**, l'intégration et l'interopérabilité des différentes bases de données philologiques et archéologiques. D'autre part, elle autorise la définition de **contraintes d'intégrités** et **d'axiomes logiques** pour qualifier les données autorisant le **raisonnement sur les connaissances** du domaine à l'aide d'un moteur d'inférence.

Ces connaissances peuvent se diviser en deux catégories. La première concerne les connaissances sur les textes, c.-à-d. les termes occurrents, ainsi que la sémantique associée, les références bibliographiques, les auteurs, etc. La deuxième catégorie regroupe les connaissances spatiales, sociales, économiques, environnementales, etc. Il est à noter que le schéma des connaissances modélisé ici n'est pas la civilisation mésopotamienne en tant que telle, mais bien la conceptualisation que se font les spécialistes du domaine par l'intermédiaire des indices issus des sites archéologiques. L'intégration de l'ensemble des connaissances des différents domaines de métier provenant notamment du texte est par conséquent l'élément essentiel des connaissances modélisées dans la base de connaissances ontologiques. Nous nommerons la phase de modélisation « du texte à la connaissance ». Quant aux textes, dès lors qu'ils sont référencés dans la base de connaissances, les informations spatiales et environnementales forment un nouveau type d'index permettant ainsi d'accéder aux références bibliographiques définissant pour ainsi dire la deuxième phase nommée « de la connaissance aux textes ». Dans la base de connaissances, les éléments pivots entre les connaissances philologiques et archéologiques sont les toponymes. Car ils sont explicitement cités notamment lorsqu'une route commerciale est référencée dans un texte, ou bien lorsqu'un site fait l'objet d'une campagne de fouilles archéologiques. D'ailleurs, un toponyme fait l'objet d'un identifiant unique nommé « identifiant HiGeoMes » permettant de singulariser un point éventuellement géolocalisé sur une carte.

La base de connaissances ontologiques ou plus simplement ontologie (Guarino *et al.*, 2009), quant à elle, prend tout son sens lorsqu'il s'agit de croiser les indices provenant des différents domaines de métiers. Sans ce composant central, l'intégration des données ne peut être entreprise, et par conséquent l'interrogation des systèmes d'information se trouve pour ainsi dire limitée à un seul domaine. Toutefois, lorsque ces indices et hypothèses sont croisés, le système d'information géographique à l'aide de la base de connaissances permet de répondre aux questionnements en suggérant des sources bibliographiques offrant une nouvelle dimension de lecture du texte grâce à sa nouvelle mise en perspective. Cependant, ce processus est imparfait, car il doit composer avec les contraintes d'incomplétude, d'incertitude et d'imprécision des données. Ces contraintes forment un formidable terrain de jeux pour le domaine de l'ingénierie des connaissances. Le modèle ontologique utilisé ici gère l'incomplétude des données grâce au **paradigme du monde ouvert**. Cependant, l'incertitude et l'imprécision restent des problématiques d'actualité dans le domaine des ontologies à base de **logiques descriptives** (Baader & Nutt, 2003) prérequis à toute inférence valide.

Cet article présente dans la section suivante le domaine de la modélisation des connaissances en spécifiant des définitions, en introduisant les technologies du Web sémantique et les logiques descriptives sous-jacentes. Dans cette même section, les hypothèses du mode ouvert/clos, et du nom unique seront présentées afin de mettre en perspective l'apport de ces technologies par rapport aux technologies traditionnelles des bases de données relationnelles. La troisième section présente le modèle de représentation des connaissances définie dans le cadre de ces travaux. La quatrième section décrit la phase que nous nommons « Du texte à la connaissance », celle du peuplement de l'ontologie qui consiste à alimenter le schéma en données. La cinquième section présente l'apport pour le domaine de métier philologique en décrivant la phase appelée « de la connaissance aux textes » permettant d'accéder aux textes à l'aide des informations modélisées dans l'ontologie. Cette section présente également l'usage de la base de connaissances pour exploiter notamment à l'aide de l'interface Web géospatiale les services de recherche des sources bibliographiques. La dernière section conclura ce document.

2. Qu'est-ce qu'une ontologie ?

La base de connaissances ontologiques ou ontologie étant l'élément central du système, nous nous devons dans un premier temps de donner une définition. Le terme «ontologie» est couramment dévoyé de son sens premier par de multiples interprétations incompatibles (Kusnierczyk, 2006). Cela a pour conséquence de la part des non-initiés de placer des attentes irréalistes dans ce domaine. Dans un deuxième temps, les technologies du Web sémantique et les logiques descriptives sous-jacentes seront introduites. Les sections suivantes présentent l'hypothèse du monde clos et l'hypothèse du nom unique.

2.1 Définitions

Le mot ontologie s'est montré très pertinent pour la communauté de l'ingénierie des connaissances. En effet, Guarino et Giaretta en 1995 (Guarino & Giaretta, 1995) proposent l'usage du mot « ontologie » pour l'ingénierie

des connaissances et « Ontologie » pour faire référence au domaine de la philosophie (Gomez-Pérez *et al.*, 2004). L'ontologie en informatique (« Computer Science ») définit ou spécifie les concepts, les relations et les propriétés pertinents pour la modélisation d'un domaine. Les spécifications prennent la forme de définitions représentatives d'un vocabulaire qui offre une signification et des contraintes formelles pour son usage cohérent (Gruber, 1992). Les ontologies formelles sont des théories au sens logique du terme qui tentent de donner une formalisation mathématique précise des propriétés et des relations de certaines entités (Hofweber, 2004).

Une des premières définitions a été donnée par Neches[5] :

> « Une ontologie définit les **termes** et les **relations** de base comprenant le vocabulaire d'un domaine ainsi que les règles pour combiner ces termes et relations pour définir une extension du vocabulaire ».

Cette définition explique comment définir une ontologie, mais seulement avec quelques vagues lignes directrices. Quelques années plus tard, Gruber définit une ontologie comme « une spécification explicite d'une conceptualisation »[6]. Cette définition a été la plus largement reprise dans la littérature et par la communauté de l'ingénierie des connaissances. Basée sur cette définition, Borst la modifie légèrement de la manière suivante[7] :

> « Les ontologies sont définies comme une spécification formelle d'une conceptualisation **partagée** ».

Le terme « partagé » est d'une grande importance, car dans ce contexte la connaissance est fortement liée à un domaine de métier, et donc liée à ses acteurs.

Les définitions de Gruber et Borst ont été fusionnées et expliquées par Studer de la manière suivante[8] :

> « Une ontologie est une spécification formelle et explicite d'une conceptualisation partagée ».

L'idée de « conceptualisation » se réfère ici à un modèle abstrait sur des phénomènes du monde réel tout en identifiant les concepts pertinents de ce phénomène. « Explicite » signifie que le type des concepts utilisés, et les contraintes sur leurs usages sont explicitement définis. « Formelle » fait référence au fait que l'ontologie doit être interprétable par la machine. « Partager » signifie que la connaissance capturée dans l'ontologie est consensuelle, c'est-à-dire connue et reconnue par un groupe d'initiés.

Guarino et Giaretta (Guarino & Giaretta, 1995) proposent de considérer une ontologie comme « une théorie logique qui rend compte explicitement et partiellement d'une conceptualisation[9] ». Une « conceptualisation » est l'idée qu'une personne ou qu'un groupe de personnes se fait du monde. Contrairement à la définition de Struder, cette définition serait applicable aux ontologies développées dans la **logique mathématique**. Cette définition a été raffinée par les mêmes auteurs comme un ensemble d'axiomes logiques conçus pour tenir compte de la signification voulue d'un vocabulaire[10].

Quelquefois, les taxonomies sont considérées comme des ontologies à part entière (Lassila & McGuinness, 2001), car elles fournissent une conceptualisation formelle d'un domaine donné. La communauté des ontologies appliquées fait toutefois la distinction entre les ontologies qui sont principalement des taxonomies et les ontologies qui modélisent un domaine particulier, dans le sens qu'elles fournissent des restrictions sur la sémantique du domaine. La communauté les nomme ontologies légères et ontologies riches (lightweight and heavyweight ontologies). Les **ontologies légères** incluent les concepts, les relations entre concepts et les propriétés qui décrivent les concepts. Les concepts forment généralement une définition terminologique. Les **ontologies riches** ajoutent des axiomes, faits toujours vrais, des contraintes, et des propriétés devant être respectées sur les ontologies légères. Les axiomes et contraintes permettent de clarifier la signification des termes regroupés au sein de l'ontologie.

Uschold et Jasper donnent une nouvelle définition du mot ontologie pour le populariser dans d'autres disciplines. Ils définissent une ontologie de la manière suivante[11] :

> « Une ontologie peut prendre diverses formes, mais elle inclura nécessairement un vocabulaire de termes et certaines spécifications de leur signification. Cela comprend des définitions et une indication sur la façon dont les concepts sont liés entre eux, et qui imposent collectivement une

5 Neches *et al.*, 1991 : « An ontology defines the basic terms and relations comprising the vocabulary of a topic area as well as the rules for combining terms and relations to define extensions to the vocabulary ».

6 Gruber, 1993 : « An ontology is an explicit specification of a conceptualization ».

7 Borst, 1997 : « Ontologies are defined as a formal specification of a shared conceptualization ».

8 Studer *et al.*, 1998 : « An ontology is a formal, explicit specification of a shared conceptualization ».

9 Guarino & Giaretta, 1995 : « A logical theory which gives an explicit, partial account of a conceptualization ».

10 Guarino & Giaretta, 1995 : « A set of logical axioms designed to account for the intended meaning of a vocabulary ».

11 Uschold & Jasper, 1999 : « An ontology may take a variety of forms, but it will necessarily include a vocabulary of terms and some specification of their meaning. This includes definitions and an indication of how concepts are inter-related which collectively impose a structure on the domain and constrain the possible interpretations of terms ».

structure sur le domaine tout en limitant les interprétations possibles des termes ».

Aujourd'hui, les ontologies sont employées dans un très large panel de domaines, tel que le traitement du langage naturel, la gestion des connaissances, les systèmes d'information, etc., et dans différentes communautés, telles que l'ingénierie des connaissances, les bases de données, le génie logiciel, etc. La communauté des bases de données et de la conception orientée objet ont construit également des modèles exploitant les concepts, les relations, les propriétés, mais ces modèles n'autorisent pas les contraintes sémantiques définissables à l'aide des ontologies riches. A titre d'exemple, le modèle relationnel des bases de données relationnelles et les diagrammes de classes du modèle UML ne permettent pas d'exprimer la richesse des axiomes et des contraintes modélisable par les ontologies riches.

Nous retiendrons la définition formelle de Staab (Staab & Studer, 2013) :

« Les ontologies informatiques sont un moyen de modéliser formellement la structure d'un système, à savoir, les entités et les relations pertinentes qui se dégagent de son observation, et qui sont utiles in fine ».

Le mot « entité » désigne l'être le plus général, et par conséquent, englobe les sujets, les objets, les processus, les idées, etc. Les relations sont représentées à l'aide de prédicats unaires ou binaires. Ce que nous appelons « concept » est un prédicat unaire, et une « relation » est un prédicat binaire. La colonne vertébrale d'une ontologie est composée d'une **hiérarchie de concept** liée par une relation sous-type (is-a), c.-à-d. une taxonomie.

2.2 Les ontologies et le Web sémantique

Bien que les ontologies soient utilisées au sein de plusieurs communautés informatiques comme l'intelligence artificielle, le génie logiciel, l'informatique biomédicale, etc., c'est au sein de la communauté du Web sémantique que naitra le langage OWL qui fait aujourd'hui autorité dans le domaine de la représentation d'ontologie sur le Web. Le Web sémantique est un mouvement collaboratif guidé par le W3C[12] pour favoriser l'échange des données et aider à l'émergence de connaissances en s'appuyant sur celles déjà présentes sur internet. Tim Berners-Lee décrit le Web sémantique comme un modèle qui permet aux données d'être partagées et réutilisées entre plusieurs applications, entreprises et groupes d'utilisateurs (Van Rijmenam, 2014). Aujourd'hui, le terme de « Web sémantique » est souvent utilisé pour désigner les formats et technologies qui ont été conçus pour permettre son émergence. La liste des technologies du Web sémantique est fréquemment illustrée par une architecture appelée « pile du Web sémantique » (Figure 1).

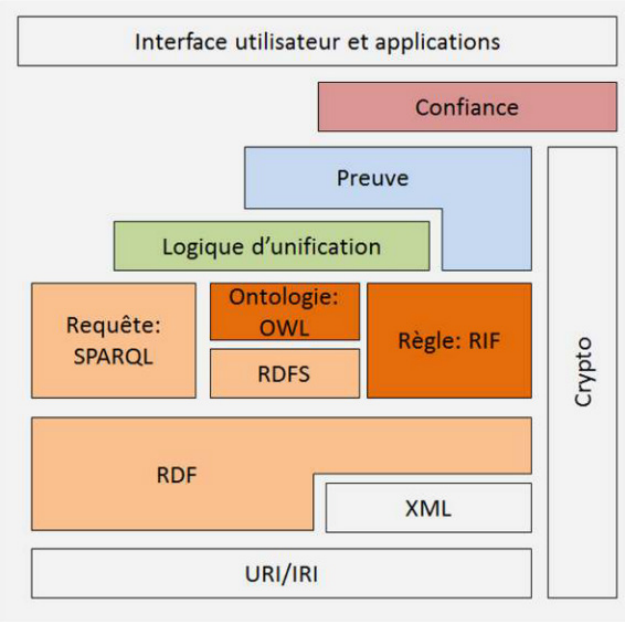

Fig. 1: Pile du Web sémantique

Les langages qui nous seront particulièrement utiles dans le projet TexTelSem sont les langages RDF, OWL et SPARQL. Le **RDF** est un langage destiné à décrire de façon formelle les ressources Web et leurs métadonnées sous forme de triplets de la forme « sujet–prédicat–objet ». RDF est une norme fondamentale considérée comme le langage de base du Web sémantique. Il permet la mise en oeuvre du Web de données qui consiste à lier et structurer l'information sous la forme de graphes pour accéder simplement à la connaissance. Le langage **RDF** Schema (RDFS) étend le langage RDF et son vocabulaire pour permettre une représentation de structures conceptuelles et d'ontologies légères avec une description hiérarchique des concepts et des propriétés. Le langage **OWL** ajoute plus de vocabulaire au langage RDF et RDFS pour décrire les propriétés et les classes. Il ajoute également des axiomes logiques permettant de réaliser des raisonnements sur les ontologies riches. **SPARQL** est un langage de requêtes et un protocole qui permettra de rechercher, d'ajouter, de modifier ou de supprimer des données RDF stockées, et donc OWL, dans un triplestore local ou distant. Un triplestore est une base de données de triplets qui est en l'occurrence notre base de connaissances ontologiques.

12 http://www.w3.org/

Parmi les technologies du Web sémantique, notre attention s'est portée essentiellement sur le langage de représentation de connaissances OWL, basé sur le modèle de données de RDF. La norme OWL implémente des logiques descriptives pour lesquelles il existe des algorithmes de raisonnement capables de vérifier la cohérence des ontologies. Ces algorithmes ont la particularité d'être décidables et calculables. Le langage OWL est composé de trois sous-langages : OWL-Lite, OWL-DL et OWL-Full. Depuis 2012, OWL 2 est recommandé par le W3C et permet l'expressivité de la **logique descriptive** *SROIQ(D)* (Staab & Studer, 2013; Baader & Nutt, 2003). Sur la base de ses axiomes et constructeurs (Figure 2), plusieurs raisonnements sont possibles en OWL et dérivent des principes énoncés en logiques descriptives. Les axiomes OWL permettent de définir une syntaxe interprétable par la machine. La syntaxe de logiques descriptives (syntaxe et exemple de la Figure 2) permet de formuler l'ontologie.

Axiome OWL	Syntaxe	Exemple
subClassOf	$C1 \sqsubseteq C2$	$Humain \sqsubseteq Animal \sqcap Bipède$
equivalentClass	$C1 \equiv C2$	$Homme \equiv Humain \sqcap Mâle$
subPropertyOf	$R1 \sqsubseteq R2$	$possèdeFille \sqsubseteq possèdeEnfant$
equivalentProperty	$R1 \equiv R2$	$Coût \equiv Prix$
disjointWith	$C1 \sqsubseteq \neg C2$	$Homme \sqsubseteq \neg Femme$
sameAs	$a_1 \equiv a_2$	$Corse \equiv île\ de\ Beauté$
differentFrom	$a_1 \sqsubseteq \neg a_2$	$Roméo \sqsubseteq \neg Juliette$
transitiveProperty	$Tr(R)$	$Tr(Contient)$
functionalProperty	$\top \sqsubseteq (\leq 1R)$	$\top \sqsubseteq (\leq 1 estMèreDe)$
inverseFunctionalProperty	$\top \sqsubseteq (\leq 1R^-)$	$\top \sqsubseteq (\leq 1 aPourMère^-)$
symmetricProperty	$R \equiv R^-$	$estMariéAvec \equiv estMariéAvec^-$

Fig. 2: Les constructeurs OWL 2

Dans la suite du document, nous utiliserons la syntaxe Turtle[13] comme format d'échanges de données RDF et donc d'ontologie OWL. Un document Turtle est une représentation textuelle d'un graphe RDF utilisant les axiomes OWL. RDF possède deux types de données les URIs et les littéraux. Les URIs (Unique Resource Identifier) est une chaîne de caractères identifiant une ressource sur un réseau (ex : http://textelsem.u-bourgogne.fr/textelsem/TTS.html). Les littéraux sont des chaînes de caractères représentant une donnée telle qu'un entier ou une chaîne de caractères qui est entouré de guillemets suivis du type, ex : "123"^^xsd:integer. Quant aux triplets, ils forment des blocs atomiques qui sont toujours représentés de la manière suivante.

1. Un sujet qui doit toujours être un URI.
2. Une propriété qui doit toujours être un URI.
3. Un objet qui est soit un URI ou un littéral.

13 http://www.w3.org/TR/turtle/

Un ensemble de triplets forme un graphe orienté. Voici un exemple de graphe.

```
tts:toponym-118  rdf:type tts:Toponym ;
tts:toponym-118  rdf:type owl:NamedIndividual ;
tts:toponym-118  tts:hasIdOldBabylonian  139 ;
tts:toponym-118  tts:hasNumHigeomes      29 ;
tts:toponym-118  tts:hasOldBabylonianName
     "Nagar"^^xsd:string ;
tts:toponym-118  tts:hasOldBabylonianName
     "Nawar"^^xsd:string ;
```

Dans cet exemple, le sujet `tts:toponym-118` permet de définir le toponyme Nagar à l'aide d'un ensemble de triplets. Il est à noter que le nœud ou sujet `tts:toponym-118` possède un ensemble de propriétés. Ce sujet est de type (`rdf:type`) `tts:Toponym`, et de type `owl:NamedIndividual`. Il possède également un numéro paléo-babylonien (`139`), un numéro HiGeoMes (`29`), deux noms paléo-babyloniens (`Nagar` et `Nawar`). Ces deux derniers littéraux sont de type chaîne de caractères (`^^xsd:string`). Le dernier point intéressant à souligner est la possibilité de simplifier l'écriture lorsque le même sujet possède plusieurs propriétés, ou une propriété possédant plusieurs valeurs.

```
tts:toponym-118 rdf:type  tts:Toponym ,
                          owl:NamedIndividual ;
                tts:hasIdOldBabylonian   139 ;
                tts:hasNumHigeomes       29 ;
                tts:hasOldBabylonianName
                          "Nagar"^^xsd:string ,
                          "Nawar"^^xsd:string ;
```

2.3 Hypothèse du monde ouvert

L'approche relationnelle des bases de données classiques et l'approche Web sémantique se distinguent par deux paradigmes différents de qualification des données stockées. L'approche relationnelle est soumise à l'**hypothèse du monde clos** stipulant que tous faits non inclus dans la base de données sont considérés comme faux. En l'absence d'information sur une affirmation, celle-ci est considérée comme fausse. L'approche Web sémantique, quant à elle, est soumise à l'**hypothèse du monde ouvert**. Cela signifie qu'il n'est pas possible de déduire la fausseté d'une affirmation du simple fait que cette affirmation n'a pas été explicitement définie comme vraie dans la base. L'hypothèse du monde clos invite à définir « ce qui est possible ». A l'inverse, l'hypothèse du monde ouvert permet de statuer « ce qui n'est pas possible ». Lorsqu'une ontologie OWL est vide alors tout est possible. Ce n'est que lorsque l'ontologie est contrainte progressivement qu'elle devient plus restrictive.

Prenons l'exemple d'une application de voyages proposant des vols entre deux destinations à une certaine date. Si l'utilisateur cherche un vol entre deux destinations à une date précise et que l'application ne renvoie aucun résultat, alors la conclusion est « il n'existe aucun vol entre ces deux destinations pour la date précisée ». Cependant, la complétude du monde clos n'est pas toujours réaliste en pratique, car la plupart des bases de données possèdent des informations susceptibles d'être incomplètes (Levesque, 1984; Motro, 1989). Par conséquent, l'hypothèse du monde clos est un très mauvais choix lorsque les informations provenant de sources hétérogènes devant être combinées, et lorsqu'il est nécessaire de gérer l'incomplétude, l'incertitude ou l'imprécision. Par contre, le monde ouvert autorise l'incomplétude des attributs d'un objet ou d'une instance. L'hypothèse du monde ouvert adopte « l'hypothèse du domaine d'ouverture » (Hustadt, 1994) qui définit qu'il peut y avoir dans l'univers plus d'objets que ceux définis dans la base de connaissances à moins qu'une contrainte dans la base ne l'interdise. Cela signifie qu'une autre agence de voyages pourrait posséder des billets pour les deux destinations à la date précisée dans l'exemple précédent.

L'avantage principal de l'hypothèse du monde ouvert et du Web sémantique consiste à permettre aux informations d'être réutilisables. La réutilisation d'une ontologie permet d'assembler, d'étendre, de spécialiser ou encore d'adapter les connaissances définies à partir d'autres ontologies. De cette manière, le Web sémantique permet l'intégration de nouvelles connaissances dans une base de connaissances existante. Enfin, l'approche du Web sémantique permet de générer de nouveaux faits à l'aide de faits existants par un mécanisme d'inférence valide et monotone. Le résultat est « valide », car les faits déduits sont vrais. Et, le mécanisme est monotone, car l'ontologie reste consistante, c.-à-d. sans contradiction.

En définitive, l'approche relationnelle s'avère un candidat tout indiqué pour la validation des données. En effet, l'hypothèse du monde clos est performante pour faciliter la validation des données pendant les opérations de transaction. Cependant, les irrégularités et l'incomplétude des données forment des limites au modèle relationnel. Toutefois, l'approche Web sémantique dépasse ces limites en proposant une structure flexible du schéma des données. Car la dissociation entre le schéma (niveau terminologique nommé TBox) et les données (niveau assertionnel nommé ABox) offrant un environnement propice à l'intégration de sources de données. Par conséquent, l'incomplétude du monde ouvert peut être partiellement comblée grâce à des raisonneurs capables de générer de nouveaux faits inférés par le système en se basant sur les contraintes logiques du niveau terminologique.

2.4 Hypothèse du nom unique

La représentation d'entités du monde réel dans un système d'information induit le besoin de définir une identification pour chaque entité afin de permettre aux utilisateurs d'établir le lien entre les données du système et leur correspondance dans le monde réel. L'identification se fait à l'aide d'une étiquette ou d'un nom. L'hypothèse du nom unique (UNA–Unique Name Assumption) indique que deux identifiants provenant de la même source et possédant deux références différentes réfèrent forcément deux entités différentes du monde réel. Cette unicité impose de définir des noms différents au sein d'un même système pour des entités différentes dans le monde réel (Hustadt, 1994; Levesque, 1984). Cette hypothèse est souvent liée à l'hypothèse du monde clos, car les données étant réputées complètes, le système n'est pas supposé être étendu en fusionnant des données d'une autre base de données relationnelle.

Contrairement à l'approche relationnelle, le langage OWL permet de définir des étiquettes différentes pour représenter les mêmes objets. C'est pourquoi il est très fréquent d'observer des noms différents représentant une entité identique. A titre d'exemple, dans la base DBPedia[14], Paris est identifiée par « dbpedia:Paris » et dans la base Yagoo[15] la même capitale est identifiée par « freebase:Paris ». De plus, Paris possède différents noms tels que « dbpedia:La_ville_lumière » ou « dbpedia:Paris_(France) » pour distinguer « dbpedia:Paris,_New_York ». Dans le langage OWL, les assertions sur l'identité doivent être explicitement définies au travers des relations « owl:sameAs » et « ow:differentFrom » respectivement pour définir le même individu, ou bien pour définir des individus différents.

3. La base de connaissances ontologiques TexTelSem

Après avoir introduit et défini la notion d'ontologie, cette section présente la modélisation de la base de connaissances ontologiques réalisée. Cette modélisation a pour fondation l'usage des technologies du Web sémantique et des logiques descriptives. Dans le cadre de cet article, une description sommaire du modèle est présentée pour une meilleure compréhension. Cette modélisation se matérialise dans une première sous-section par la présentation des concepts, des relations et des propriétés. La deuxième sous-section aborde le concept particulier « RelatedInfor-

14 http://fr.dbpedia.org/resource/Paris
15 http://www.freebase.com/m/05qtj

mations » permettant de mettre en lien plusieurs concepts. La troisième sous-section traite des relations réflexives du concept « Toponym » permettant de lier différents toponymes telles que les contraintes directionnelles. La quatrième section introduit la hiérarchie lexicographique utilisée pour la description des toponymes. La cinquième section rend compte de la modélisation des routes dans le modèle, et la dernière section aborde la problématique de qualification des données.

3.1 Les concepts, relations et propriétés

Cette sous-section présente l'organisation de l'ontologie, c.-à-d. les concepts en orange dans la Figure 3, les relations en bleu dans la même figure, les propriétés en vert, et les hiérarchies organisant les concepts, relations et propriétés. Le concept « Thing » est le concept le plus général. Tout objet ou individu appartenant à un concept appartient également à l'ensemble des concepts ascendants de la hiérarchie. La relation « topObjectProperty » est la relation la plus générale. De la même manière, toute relation appartenant à un type de relation appartient également aux types de relations ascendantes. Par exemple, une relation de type « isNearOf » est également de type « hasGeoConstraint » et « topObjectProperty ». La propriété « topDataProperty » est la propriété la plus générale, et chaque attribut d'un type défini appartient, comme pour les concepts et relations, aux types des attributs ascendants. La Figure 3 fournit la liste complète des éléments du modèle. Ces éléments seront abordés dans la suite de cette section de manière non exhaustive.

Fig. 3: Liste des concepts, relations et propriétés

A titre d'exemple, la Figure 4 présente la relation « isEastOf » liant deux toponymes. Le domaine ou « Domains » en anglais correspond à un objet de départ de la relation, et le codomaine ou « Ranges » correspond à l'objet d'arrivée de la même relation. La relation est dite orientée, car il n'existe pas nécessairement une relation inverse définie. Dans le cas contraire, cette relation peut être symétrique, comme pour la relation « isNearOf ». En effet, deux objets sont nécessairement mutuellement proches et non de manière indépendante. C'est pourquoi cet axiome doit être renseigné dans la base de connaissances afin de déterminer automatiquement toutes les relations inverses des relations symétriques. Concernant la relation « isEastOf », le domaine et le codomaine sont de type « Toponym ». Cette relation est particulière, car elle possède un axiome logique particulier. En l'occurrence, l'axiome est la transitivité. Celui-ci indique par sa présence qu'il est possible de calculer sa fermeture, c.-à-d. qu'il existe une suite d'objets reliés consécutivement aboutissant à une relation du même type entre le premier et le dernier objet de la chaîne. Dans le cas présent, cette suite d'objets est de type « Toponym ». La sous-section 3.3 fournit plus d'explications sur ce point. Ces contraintes logiques sont caractéristiques de l'hypothèse du monde ouvert où toutes les propriétés des objets ne sont pas définies, mais les propriétés nécessaires et éventuellement suffisantes. Contrairement à l'hypothèse du monde clos où toutes les caractéristiques doivent être explicitées.

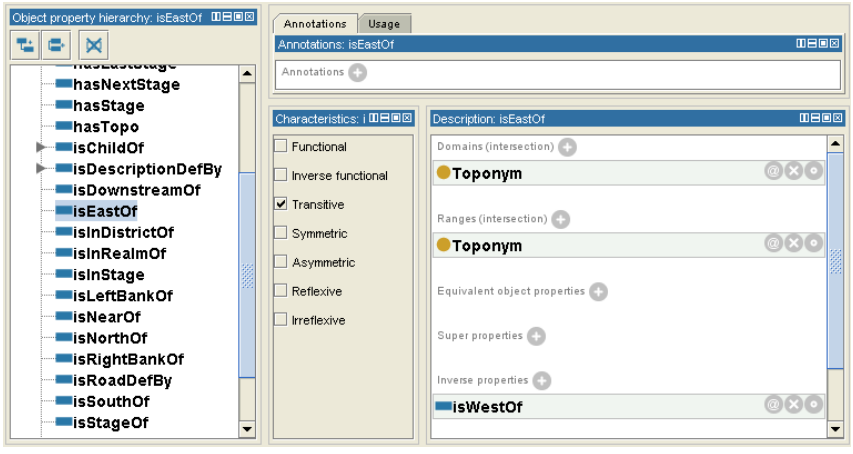

Fig. 4: Exemple de définition de relation

Quant à la Figure 5, elle propose une vue d'ensemble des concepts et des relations de l'ontologie TexTelSem. Afin de faciliter la compréhension de l'usage qu'il est possible de faire de cette ontologie notamment lors de son alimentation ou de son interrogation, nous diviserons

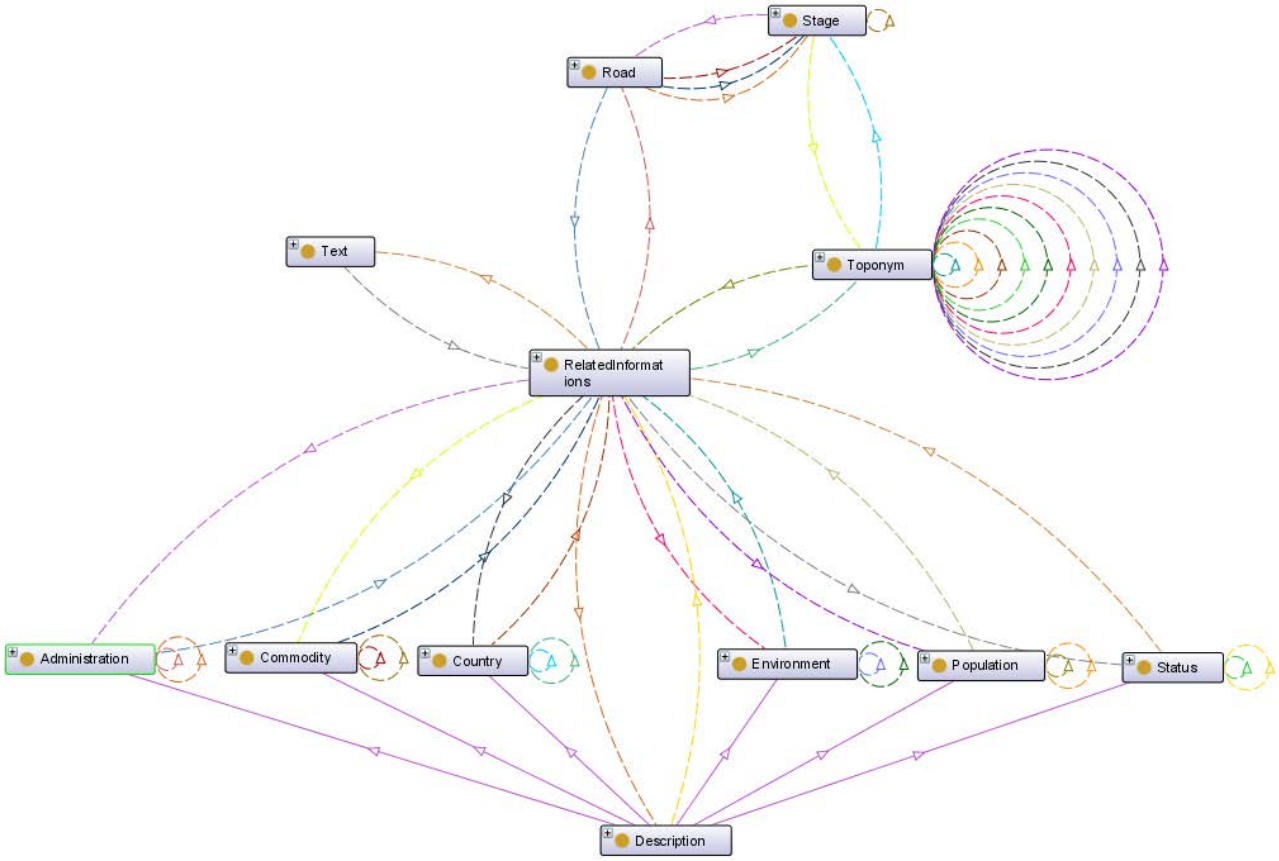

Fig. 5: Vue d'ensemble de l'ontologie TexTelSem

de manière artificielle l'ontologie TexTelSem selon trois axes, l'axe « Texte-Toponyme », l'axe « Route-Etape », l'axe « Informations Relatives ». Le concept « RelatedInformations » permet d'ajouter des informations relatives aux objets de type « Text » et « Toponyme ». Les informations relatives sont définies à l'aide de concepts « Road » et « Description ». Ce dernier est lui-même spécialisé en concept « Administration », « Commodity », « Country », « Environment », « Population » et « Status ». Il est à noter que toutes les relations partant du concept « RelatedInformations » sont de type « RelatedInformationDefined ». De plus, toutes les relations entre « Toponym » sont réflexives et de type plus général « hasGeoConstraint ». Les relations entre « Road » et « Stage » seront abordées ultérieurement.

Le reste de cette sous-section détaille les propriétés des concepts. Entre parenthèses, le type de la propriété et la cardinalité sont séparés par le symbole « / ». Le type des propriétés recouvre les chaînes de caractères, les entiers et les décimaux. (type/0-1) signifie que la propriété n'est pas obligatoire, mais si elle existe alors elle sera unique. (type/0-n) signifie que l'objet possède éventuellement plusieurs propriétés du même type. Pour les propriétés contraintes, la liste des choix possibles est indiquée entre crochets de la manière suivante :

Propriété (type/cardinalité) [choix possibles]

« **Toponym** » : représente la classe des toponymes.

- ***hasArea*** définit la ou les zones géographiques HiGeoMes qui peuvent contenir le toponyme. La figure Figure 6 présente les zones accompagnées de leur numéro. (chaîne de caractères/0-n) [B, C, D, E, F, G, N]. Ces zones ont été définies par des experts en matière de références textuelles et par des experts en matière de conditions archéologiques et naturelles (Ziegler & Langlois, 2016; Cancik-Kirschbaum & Hess, 2016; Fink, 2016).
- ***asIdMedioAssyrian*** définit l'identifiant d'un toponyme médio-assyrien. (entier/0-1)
- ***hasIdOldBabylonian*** définit l'identifiant d'un toponyme paléo-babylonien. (entier/0-1)
- ***hasNumHigeomes*** définie l'identifiant HiGeoMes[16]. (entier/0-1)

16 Cet identifiant est unique et permet de faire le lien entre plusieurs toponymes de différentes époques. Ces identifiants ont été définis au cours du projet ANR-DFG HiGeoMes.

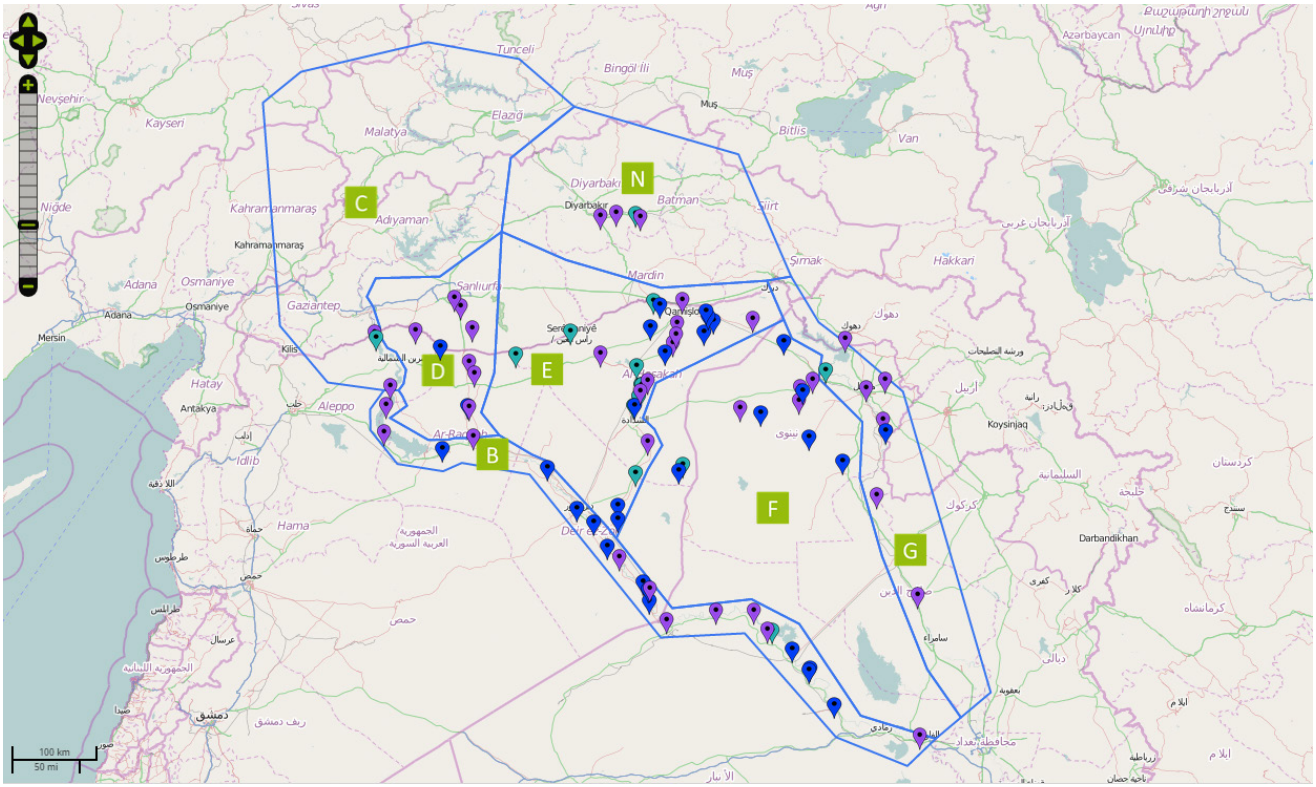

Fig. 6: Capture d'écran de la page d'accueil de la plateforme Web TexTelSem

- ***hasLatitude*** définit la latitude présumée du site. (décimal/0-1)
- ***hasLongitude*** définit la longitude présumée du site. (décimal/0-1)
- ***hasMedioAssyrianName*** définit les noms médio-assyriens du toponyme. (chaîne de caractères/0-n)
- ***hasMaSureness*** définit le degré de certitude caractérisant l'identification du site avec les toponymes médio-assyriens. (entier/0-1) [0: identification inconnue, 1: possible, 2: vraisemblable, 3: sûre]
- ***hasOldBabylonianName*** définit les noms paléo-babyloniens du toponyme. (chaîne de caractères/0-n)
- ***hasModernName*** définit le nom moderne du toponyme (chaîne de caractères/0-n)
- ***hasObSureness*** définit le degré de certitude caractérisant l'identification du site avec les toponymes paléo-babyloniens. (entier/0-1)[0: identification inconnue, 1: possible, 2: vraisemblable, 3: sûre]
- ***hasType*** définit le type du site. Nous utilisons uniquement pour hasType la valeur 3. Toutefois, cette propriété permettra d'ajouter de nouveaux toponymes différents de « localité » et qui pourront exploiter également les relations et contraintes topologiques. (entier/0-1) [1: Cours d'eau, 2: Ethnique, 3: Localité, 4: Montagne, 5: Pays, 6: Terroir]

« **Text** » : représente un texte cunéiforme possédant un identifiant bibliographique et une traduction.

- ***hasRefKey*** définit l'identifiant du texte. (chaîne de caractère/1)
- ***hasTraduction*** définit la traduction du texte en français ou allemand. (chaîne de caractère/0-1)

« **Road** » : représente une route constituée d'une suite ordonnée d'au moins deux toponymes.

- ***isOfPeriod*** définit la période de la route. (chaîne de caractères/1)[OB: paléo-babylonienne (old-babylonian), MA: médio-assyrienne]
- ***rdfs:label*** : le label de la route est défini à l'aide de la concaténation des noms de toponyme de la route de façon ordonnée. (chaîne de caractères/1)

« **Stage** » : représente une étape d'une route et se caractérise par un toponyme.

« **RelatedInformations** » : ce concept offre la possibilité de créer des relations n-aires telles qu'un lien entre un toponyme, un texte et une description ou une route. Il fait l'objet de la sous-section suivante.

« **Description** » : permet de représenter toutes les ressources associées à un toponyme. Ce concept est le sub-

sumant des six concepts suivants, « Administration », « Commodity », « Country », « Environment », « Population » et « Status ». Chacun des sous-concepts possède les propriétés suivantes :

- ***hasNameFRA*** définit le nom français de la description. (chaîne de caractères/0-1)
- ***hasNameDEU*** définit le nom allemand de la description. (chaîne de caractères/0-1)

« **Administration** » : regroupe toutes les ressources administratives telles que les rois, les gouverneurs, etc.
« **Commodity** » : regroupe les denrées telles que la nourriture, les taxes, le bétail, etc.
« **Country** » : regroupe les différents Pays et Districts.
« **Environment** » : regroupe les éléments de paysages urbains et ruraux ainsi que la faune et la flore.
« **Population** » : regroupe les types d'habitants, les corps de métiers ainsi que ce qui concerne les troupes.
« **Status** » : regroupe entre autres les statuts naturels tels que « montagne », et les statuts politiques tels que « ville », « capitale », etc.

3.2 Le concept « RelatedInformations »

Le concept central de la base de connaissances ontologiques est le concept « RelatedInformations », car son intérêt réside dans sa capacité à définir des liens n-aires entre objets. La relation « RelatedInformations » permet de définir un couple de Texte-Toponyme unique. Ce couple est obligatoirement unique, car il est considéré comme un identifiant. Les deux figures suivantes montrent quelles sont les relations en jeu pour créer un lien entre un texte et un toponyme.

Fig. 7: Liens « RelatedInformations – Toponym »

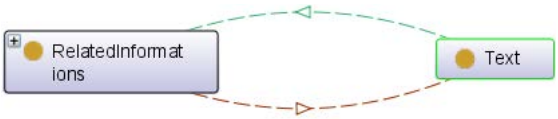

Fig. 8: Liens « RelatedInformations – Text »

Les informations relatives au toponyme dans le texte sont donc également liées à l'aide de l'objet « RelatedInformation » par les relations définies dans la Figure 9. Cette figure donne la liste des relations par type d'objet lié. Par exemple, un objet de type « RelatedInformations » est lié à un objet de « Country » à l'aide de la relation « defineCountry ». La relation inverse de « defineCountry » est « isCountryDefBy ». De plus, si l'une des deux relations

Fig. 9: Concept « RelatedInformations » et ses relations aux concepts de type « Description »

existe, alors par déduction logique l'autre relation existe également.

Il est à noter qu'un objet de type « RelatedInformations » définit de manière unique un couple composé d'un toponyme et d'un texte. Par contre, cet objet est éventuellement lié à plusieurs routes et il peut posséder plusieurs descriptions.

3.3 Les relations réflexives et transitives du concept « Toponym »

Les relations réflexives ont pour fonction de lier des objets de même type. Dans le cas présent, le concept « Toponym » possède des relations réflexives mettant en lien ses propres objets. Le terme « objet » est utilisé dans le paradigme Orienté Objet, c.-à-d. l'objet d'une classe d'objets. Nous lui préférerons le terme « individu », et un individu est membre d'un concept dans une ontologie. La Figure 10 énumère ses relations réflexives.

Nous avons les relations de localisation relatives aux points cardinaux qui sont les relations les plus importantes, car relativement précises :

- « ***isNorthOf*** » signifie qu'un toponyme est au nord d'un autre toponyme, et sa relation inverse « ***isSouthOf*** » signifie que l'autre toponyme est au sud du premier.
- « ***isEastOf*** » signifie qu'un toponyme est à l'est d'un autre toponyme, et sa relation inverse « ***isWestOf*** » signifie que l'autre toponyme est à l'ouest du premier.

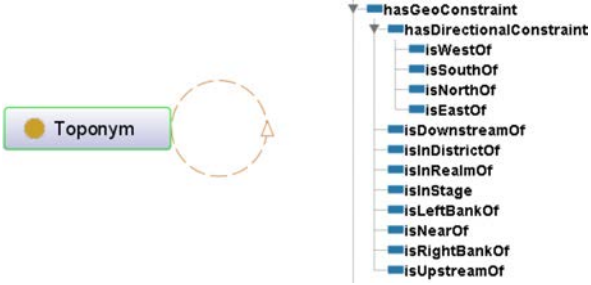

Fig. 10: Relations réflexives du concept « Toponym »

Toutes ces relations sont transitives. Cela permet de déduire les relations de la fermeture transitive, par exemple :

```
tts:toponym-A   tts:isNorthOf   tts:Toponym-B ;
tts:toponym-B   tts:isNorthOf   tts:Toponym-C ;
```

Donc,

```
tts:toponym-A   tts:isNorthOf   tts:Toponym-C ;
```

Ensuite, nous avons les relations suivantes moins précises et non transitives donnant toutefois une indication à l'utilisateur. Voici ces relations :

- « ***isInDistrictOf*** » signifie qu'un toponyme est dans le district d'un autre .
- « ***isInRealmOf*** » signifie qu'un toponyme est dans le royaume d'un autre toponyme de type « Pays ».
- « ***isUpstreamOf*** » signifie qu'un toponyme est en amont d'un autre toponyme de type « Localité ».
- « ***isDownstreamOf*** » signifie qu'un toponyme est en aval d'un autre toponyme de type « Localité ».
- « ***isLeftBankOf*** » signifie qu'un toponyme est en rive gauche d'un toponyme de type « Cours d'eau ».
- « ***isRightBankOf*** » signifie qu'un toponyme est en rive droite d'un toponyme de type « Cours d'eau ».
- « ***isNearOf*** » signifie qu'un toponyme est proche d'un autre toponyme. Cette dernière est une relation symétrique. En effet, nous pouvons dire sans nous tromper que l'autre toponyme est proche du premier.

3.4 Hiérarchie lexicographique des descriptions

Concernant le concept « Description », les objets de cette classe sont des ressources terminologiques et forment pour ainsi dire une taxonomie et non une hiérarchie de concepts. Ainsi pour définir la hiérarchie de la taxonomie, nous utilisons la relation réflexive « ***hasChildOf*** » et sa relation inverse « ***isChildOf*** », également réflexive, pour parcourir les termes de la taxonomie. Ces relations ne forment pas nécessairement des relations de spécialisation, mais permettent d'organiser les descriptions selon le besoin des spécialistes du domaine. Cette taxonomie reproduit la taxonomie de descriptions des bases de données Archibab[17] et Archimass. Les relations « ***hasChildOf*** » et « ***isChildOf*** » s'apparentent aux relations « ***skos:broader*** » et « ***skos:narrower*** » du schema SKOS[18] (Simple Knowledge Organization System RDF Schema). Toutefois, ce vocabulaire étant unique et pour un usage dans un contexte particulier, il n'a pas été jugé nécessaire de faire le lien avec SKOS, bien qu'il soit facilement envisageable de créer ce lien.

- « ***hasChild*** » signifie qu'un terme est lié à un terme d'un niveau inférieur.
- « ***isChildOf*** » signifie qu'un terme est lié à un autre d'un niveau supérieur.

Les relations suivantes sont des relations spécialisées liant des descriptions de même type, car le concept « Description » est spécialisé également en différents concepts.

- « ***hasChild_Administration*** » lie deux objets de type « **Administration** »
- « ***isChildOf_Administration*** » lie deux objets de type « **Administration** »
- « ***hasChild_Commodity*** » lie deux objets de type « **Commodity**»
- « ***isChildOf_Commodity*** » lie deux objets de type « **Commodity** »
- « ***hasChild_Country*** » lie deux objets de type « **Country** »
- « ***isChildOf_Country*** » lie deux objets de type « **Country**»
- « ***hasChild_Environment*** » lie deux objets de type « **Environment** »
- « ***isChildOf_Environment*** » lie deux objets de type « **Environment** »
- « ***hasChild_Population*** » lie deux objets de type « **Population** »
- « ***isChildOf_Population*** » lie deux objets de type « **Population** »
- « ***hasChild_Status*** » lie deux objets de type « **Status** »
- « ***isChildOf_Status*** » lie deux objets de type « **Status** »

Fig. 11: Hiérarchie des descriptions

La Figure 11 montre la hiérarchie des descriptions comme elle se présente sur la plateforme Web TexTelSem pour l'agriculture. En cliquant sur le mot « Administration », la plateforme Web affiche la hiérarchie lexicographique concernant l'administration.

17 https://www.archibab.fr
18 https://www.w3.org/2004/02/skos

3.5 Modélisation des routes

Une route est un objet de type « Road » qui est composé d'au moins deux étapes, c.-à-d. composé de deux objets du type « Stage » correspondant aux toponymes de départ et d'arrivée. Les étapes d'une route sont ordonnées permettant ainsi de connaitre l'étape suivante pour toutes les étapes non finales.

- « ***hasStage*** » signifie qu'une route possède une étape.
- « ***isStageOf*** » est la relation inverse de « ***hasStage*** ».
- « ***hasFirstStage*** » permet de désigner la première étape d'une route.
- « ***hasLastStage*** » permet de désigner la dernière étape d'une route.
- « ***hasNextStage*** » définit l'étape suivant de l'étape courante.
- « ***hasTopo*** » et sa relation « ***isInStage*** » définit le toponyme pour une étape. Cette relation est unique pour chaque étape de la base de connaissances.

La Figure 12 présente la route Ṭabatum – Qaṭṭunan – Mari où apparaît l'objet central de type « Road ». Cet objet est lié à un ensemble d'objets de type « Stage » (étape). La relation de couleur marron identifie la première étape et la relation de couleur orange identifie la dernière étape. Les relations de couleur bleue entre les étapes donnent le cheminement.

3.6 Qualification des données

Lors du processus d'enrichissement de l'ontologie consistant à alimenter le schéma de données ontologiques à l'aide des données extraites des différentes bases de données, de nombreuses erreurs ont été décelées. Ce processus constitue un mécanisme de qualification des données levant ainsi les erreurs et incohérences générées lors de l'insertion des données dans les bases de données philologiques. La correction de ces erreurs améliore *in fine* la qualité des données injectées dans l'ontologie. De même, une fois ces erreurs détectées, elles sont impactées dans les bases de données initiales. Ces erreurs sont de 5 types différents.

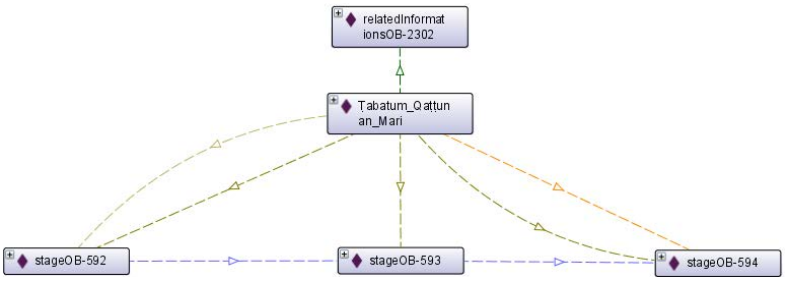

Fig. 12: Graphe de la route Ṭabatum-Qaṭṭunan-Mari

1. **Erreurs de syntaxe** : les informations dans les bases de données sont organisées sous la forme de fiches composées d'attributs de type « chaine de caractères ». Certains attributs possèdent une syntaxe bien définie qu'il s'agit de respecter. Par exemple, une route est définie selon la syntaxe suivante: *toponyme1_toponyme2_toponyme3*. Parfois, le tiret-bas (ou underscore) est remplacé par un autre tiret ou des points virgules. Le motif syntaxique n'est alors pas respecté, une erreur syntaxique est remontée auprès des administrateurs des bases de données philologiques. Ce type d'erreur n'est pas problématique pour les philologues capables d'interpréter l'information dans son contexte. Malheureusement, il est indispensable de désambiguïser l'information pour la machine.
2. **Toponymes inconnus** : Dans de nombreux cas, tels que les routes où les localisations relatives, les informations sur un toponyme dépendent d'autres toponymes. Par exemple, *toponyme-1 est au nord de toponyme-2*. Toutefois, plusieurs cas ont été identifiés dans lesquels le toponyme-2 n'était pas renseigné dans la base de données. Par conséquent, nous créons un nouveau toponyme dans l'ontologie possédant un lien vers le même texte.
3. **Erreur de caractères** : Cette erreur est fréquente et difficile à détecter. En effet, les normes de codage du texte sont nombreuses en informatique. Et lorsque cette norme n'est pas renseignée, des erreurs d'interprétation apparaîssent. Pour chaque caractère visible ou non en informatique il existe un code. Dans la table ASCII, le caractère « A » possède le code 65, le caractère « a » possède le code 97. Toutefois, il existe plusieurs codes pour un même symbole, car plusieurs alphabets utilisent les mêmes symboles.
4. **Homonymes** : Dans les bases de données philologiques, les toponymes sont définis à l'aide de chaines de caractères, et non par l'usage d'un identifiant. Par conséquent, il est très difficile pour un programme informatique de désambiguïser un toponyme lorsque plusieurs toponymes portent le même nom. Les toponymes homonymes connus sont à présent distingués, et le processus de qualification prend en charge cette distinction.
5. **Incohérences** : Grâce à la plateforme Web TexTelSem et au processus de qualification des données, de nouveaux types d'incohérence dans les données ont pu être détectés. A titre d'exemple, dans le volet des sites avec des localisations relatives, lorsque l'utilisateur cliquait sur « Hišhiniya », celui-ci obtenait le résultat présenté dans la figure Fig. 13.

Nous constatons que la zone de contraintes directionnelles ne se dessine pas, et donc Hiš-

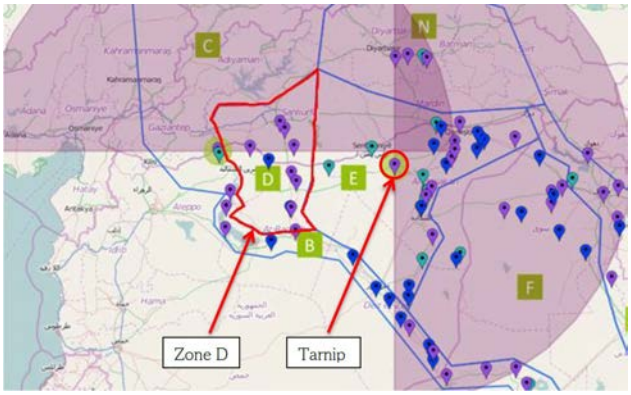

Fig. 13: Incohérence géospatiale

hiniya n'est pas un point cohérent. En cherchant dans les données correspondantes à Hišhiniya, nous avons les informations suivantes :

- Hišhiniya est au Nord de Karkamis, Karkemiš
- Hišhiniya est à l'Est de Tarnip
- Hišhiniya est dans la zone D

Les deux dernières informations ne sont pas cohérentes et l'une des deux informations a été corrigée (Hišhiniya est à l'Ouest de Tarnip).

4. Du texte à la connaissance

Cette section présente les différents axes de modélisation de la connaissance mentionnés précédemment sous la forme d'exemples. Ces axes sont artificiels, mais offrent une vue structurelle sur l'ontologie. Le premier axe est nommé « Toponyme-Texte » regroupant les connaissances sur les textes et les toponymes apparaissant dans ces mêmes textes. Nous pouvons ainsi dire que cet axe forme la connaissance philologique des toponymes. Le deuxième correspond à l'axe « Route-Etape » et il forme un ensemble de connaissances sur les itinéraires paléo-babyloniens et médio-assyriens. Le troisième axe nommé axe « Informations-Relatives » apporte un ensemble de connaissances contextuelles à la fois à l'axe « Toponyme-Texte » et à l'axe « Route-Etape ». Ces connaissances sont modélisées à l'aide du concept « RelatedInformations » formant des relations n-aires. Ces axes représentent les connaissances modélisées à l'aide des textes paléo-babyloniens et médio-assyriens et des données des bases philologiques. Quant à cette section, elle se divise selon ces trois axes afin de décrire chacune d'elle.

4.1 Axe Toponyme-Texte

Cette sous-section présente un exemple d'objet de type concept « Toponym », un exemple d'objet de type concept « Text », et un objet de type « RelatedInformations » reliant le toponyme au texte.

4.1.1 Définition du toponyme « toponym-118»

Pour comprendre comment l'ontologie a été pensée voici un exemple avec le toponyme « toponym-118 ». Les identifiants utilisés dans les noms des objets sont totalement arbitraires, et il s'agit de ne pas les confondre avec l'identifiant HiGeoMes qui permet d'identifier un toponyme bien précis. L'exemple suivant de syntaxe Turtle est un extrait de l'ontologie. Les éléments surlignés en vert sont des informations importantes qui seront utilisées ultérieurement dans plusieurs autres exemples.

```
tts:toponym-118
     rdf:type              tts:Toponym ,
                           owl:NamedIndividual ;
     tts:hasIdOldBabylonian   139 ;
     tts:hasNumHigeomes       29 ;
     tts:hasType           3 ;
     tts:hasObSureness     3 ;
     tts:hasLatitude       "36.667254"^^xsd:double ;
     tts:hasLongitude      "41.057903"^^xsd:double ;
     tts:hasArea           "E"^^xsd:string ;
     tts:hasModernName     "Brak, Tall"^^xsd:string ;
     tts:hasOldBabylonianName
                           "Nagar"^^xsd:string ,
                           "Nawar"^^xsd:string ;
     tts:isInStage         tts:stageOB-610 ,
                           tts:stageOB-613 .
```

Dans cet exemple, le toponyme « toponym-118 » possède l'identifiant paléo-babylonien 139, et le numéro HiGeoMes 29. Il est de type 3, c.-à-d. une localité. La certitude de sa géolocalisation est de « 3 » signifiant « sûr » pour la latitude de 36.667254 et longitude de 41.057903 (WGS84). Nous savons également qu'il se trouve dans la zone E. Ce site porte plusieurs noms. Son nom moderne est « Brak , Tall », et ses noms paléo-babyloniens sont Nagar et Nawar. Ce toponyme fait l'objet de deux étapes des routes paléo-babyloniennes, stageOB-610 et stageOB-613. Ces deux objets permettent de remonter jusqu'aux objets de type « Road », c.-à-d. les routes.

Pour continuer à enrichir le toponyme à l'avenir, si au cours d'une étude philologique, par exemple, il est découvert que ce toponyme correspond à un site médio-assyrien, alors nous pourrons ajouter son identifiant « XXX » et son

nom médio-assyrien « YYY » de la manière suivante pour enrichir l'ontologie.

```
tts:toponym-118
    tts:hasIdMedioAssyrian     XXX ;
    tts:hasMedioAssyrianName  "YYY"^^xsd:string ;
```

Contrairement à l'approche relationnelle, une ontologie permet de définir plusieurs étiquettes différentes pour représenter les mêmes objets. Nous ne sommes pas dans le cas présent dans l'hypothèse du nom unique. Car, si deux toponymes de deux bases différentes en l'occurrence ArchiBab et ArchiMass peuvent posséder des noms différents, ils peuvent tout de même définir le même site. Dans ce cas, si les indices pour valider cette hypothèse existent, alors il est possible de créer la relation « ***owl:sameAs***» entre les deux toponymes.

4.1.2 Définition du texte « textOB-6922 »

L'exemple précédent présente un toponyme, l'exemple présent modélise un texte. Ces deux objets seront reliés dans l'exemple suivant. Ici, le texte possède une traduction et une référence «ARM 27 135». Il est à noter que le toponyme « Nagar » apparaît dans le texte, et qu'il sera question de réutiliser ce texte ultérieurement.

```
tts:textOB-6922   rdf:type   tts:Text ,
                             owl:NamedIndividual ;
                  tts:hasTraduction «(1-3) Dis à
mon seigneur : ainsi (parle) Zimri-Addu, ton ser-
viteur. (4) Dans mon entourage j'ai appris ceci :
(5) « Haya-Sumu est arrivé et a dit : (6) « Le sire
du Numha est allé … » (7) le fermier de Haya-Sumu
de la ville de Dur(?)-…, (8) quatre Numhéens ont
été tués(?), et (9) … (10) […] les Numhéens … le
fermier de Haya-Sumu (11) … (12) Aškur-Addu et Ka-
biya (roi) de Kahat, (13) sont sortis (13-14) et ont
razzié entre Nagar et Šabiša (15) et, après avoir
enlevé 10 hommes de l'Ida-Maraṣ, (16) ils les ont
fait entrer […]. (17-20) … (21) […] libérez ! (22)
… » (23) [Voilà ce que Kabi]ya et Asqur-Addu (24)
m'ont écrit. (25) D'autre part, dans mon entourage
j'ai appris (26) ceci : « (27) Akin-Amar, le sire
de Kahat, (parle) ainsi : « (28) le sire d'Eluhut,
[le sire de …] (29) et un Akkadien (30) ont prêté
le serment. (31-32) Mais l'Akkadien qui a prêté le
serment avec eux, est-ce le sire d'Ešnunna (33) ou
bien celui de Babylone, je ne l'ai pas identifié. »
(34) Voilà ce que j'ai appris dans mon entourage
(35) et que j'ai écrit à mon seigneur : (36) que
mon seigneur le sache !»^^xsd:string ;
          tts:hasRefKey   "ARM 27 135"^^xsd:string .
```

Bien des termes tels que Nagar soient identifiables dans le texte, nous ne les avons pas indexés. Toutefois, même si la fonctionnalité n'a pas été implémentée, il est possible de faire une recherche par mots clés dans l'ensemble des attributs de type texte de l'ontologie.

4.1.3 Définition d'un « RelatedInformations » entre un texte et un toponyme

Dans cet exemple, l'objet de type « RelatedInformations » permet de lier le texte « textOB-6922 » de l'exemple précédent concernant « Nagar », le toponyme « toponym-118 » qui est le toponyme ayant pour nom paléo-babylonien « Nagar », et la route Nagar-Šabiša « roadOB-131 ».

```
tts:relatedInformationsOB-1966
    rdf:type            tts:RelatedInformations ,
                        owl:NamedIndividual ;
    tts:definedStatus   tts:status-21 ;
    tts:definedText     tts:textOB-6922 ;
    tts:definedTopo     tts:toponym-118 ;
    tts:defineRoad      tts:roadOB-131 .
```

Nous voyons dans cet exemple comment se tisse doucement le graphe reliant ainsi un ensemble d'informations assyriologiques autour d'un objet de type « RelatedInformation ». La sous-section suivante quant à elle se focalise sur la modélisation de l'axe Route-Etape. Nous pouvons nous rendre compte que cet axe étend le graphe présenté dans cette sous-section afin d'apporter de plus amples informations sur les étapes d'une route.

4.2 Axe Route-Etape

L'exemple de la Figure 12 présente bien la route Ṭabatum–Qaṭṭunan–Mari, et les liens que l'objet de type « Road » possède avec ses étapes qui sont « stageOB-592 », « stageOB-593 » et « stageOB-594 ». Dans l'exemple de syntaxe Turtle suivant, la route « roadOB-131 » est définie par « relatedInformationsOB-1966 » vue plus haut, et a pour première étape « stageOB-610 » définit également dans le toponyme « toponym-118 » correspondant à « Nagar ».

```
tts:roadOB-131
    rdf:type         tts:Road ,
                     owl:NamedIndividual ;
    rdfs:label       "Nagar _ Šabiša"^^xsd:string ;
    tts:isOfPeriod   "OB"^^xsd:string ;
    tts:isRoadDefBy
                 tts:relatedInformationsOB-1966 ,
                 tts:relatedInformationsOB-2790 ;
    tts:hasStage     tts:stageOB-610 ;
```

```
    tts:hasStage        tts:stageOB-611 .
    tts:hasFirstStage   tts:stageOB-610 ;
    tts:hasLastStage    tts:stageOB-611 ;
```

Nous constatons dans l'exemple suivant que l'étape « stageOB-610 » possède une relation « hasTopo » liant cette étape au toponyme « toponym-118 ».

```
tts:stageOB-610   rdf:type       tts:Stage ,
                  tts:hasTopo    tts:toponym-118 ;
```

Cette dernière information montre qu'il est possible de rechercher des routes à partir d'un toponyme, ou bien de rechercher les toponymes à partir d'une route. Cette structuration de l'information prend la forme d'un graphe de connaissances complexe, rendant possible son interrogation et sa visualisation.

4.3 Axe Informations Relatives

Les objets de type « RelatedInformations » sont centraux, car ils permettent de tisser le graphe des connaissances de manière plus souple et complexe qu'une base de données relationnelle standard. Nous avons vu dans les exemples précédents comment un objet de ce type permet de relier une route à un toponyme. A présent, nous allons voir comment définir une description sur un toponyme. L'exemple suivant définit dans une première partie le type d'objet « Status » comme une spécialisation ou sous-classe du type « Description ». Dans une deuxième partie, il définit un objet « status-21 » de type « Status ». Cet objet est lié à l'objet « relatedInformationsOB-1966 » de la section 4.1.3 liant le toponyme définissant « Nagar ». Le nom de ce statut en français est « Statut: objet d'une campagne militaire » indiquant que « Nagar » fait l'objet d'une campagne militaire et cette connaissance est extraite du texte « textOB-6922 » (cf. 4.1.2).

```
tts:Status   rdf:subClassOf   tts:Description ;

tts:status-21  rdf:type     tts:Status ,
                            owl:NamedIndividual ;
       tts:isStatusDefBy
            tts:relatedInformationsOB-1966  ;
       rdfs:label
            «Statut: objet d'une campagne
              militaire»^^xsd:string ;
       tts:hasNameFRA
            «Statut: objet d'une campagne
              militaire»^^xsd:string .
```

Cette section a abordé la manière dont sont modélisées les connaissances dans l'ontologie, et la manière dont cette ontologie est alimentée à l'aide d'exemple. La phase suivante présente l'exploitation de ces connaissances.

5. De la connaissance aux textes

Il est important de garder à l'esprit que lorsqu'une hypothèse est émise ou qu'une information est fournie par la plateforme Web TexTelSem, il est possible de revenir aux textes. Voilà ce qui fait l'intérêt majeur de cette solution, car elle ne forme pas un index linéaire, mais bien un index spatial et temporel sur les textes paléo-babyloniens et médio-assyriens. Dans cette section, nous utiliserons des exemples concrets pour monter le fonctionnement du système et pour répondre à la question suivante : comment exploiter les connaissances pour valider des hypothèses en retournant aux textes ? La première sous-section décrit la manière d'accéder à une route et de revenir au texte. La deuxième sous-section présente la manière d'atteindre les descriptions des toponymes pour ensuite fournir la référence du texte donnant l'information sur la description. La troisième sous-section décrit les contraintes directionnelles et géographiques. La dernière sous-section présente les routes partielles pour lesquelles un sous-ensemble d'étapes n'est pas géolocalisé, mais possède des contraintes directionnelles et géographiques.

5.1 De la route aux textes

Cette sous-section montre comment accéder aux connaissances de la base à l'aide de la plateforme Web TexTelSem. Cet exemple se focalise sur les routes et leur visualisation. La Figure 14 présente une capture d'écran de la solution où sur la gauche l'utilisateur peut sélectionner une route paléo-babylonienne ou médio-assyrienne. En l'occurrence la route sélectionnée est « Kahat–Nagar–Ṭabatum–Qaṭṭunan–Mari ». Celle-ci s'affiche sous la forme de traits reliant chaque étape à l'étape suivante. Toutefois, cette représentation est symbolique, car elle ne représente en rien le trajet réel. Cela permet d'une part de visionner la séquence des toponymes composant la route, et d'autre part de pouvoir sélectionner la route et afficher une infobulle. Cette infobulle fournit le nom de la route permettant de distinguer les différentes routes sélectionnées, et donne les ressources bibliographiques. Dans la Figure 14, la référence du texte est « ARM 28 123 ».

Une fois la référence connue, nous interrogeons l'ontologie afin de connaitre les détails du texte. Cette option n'est pas disponible en ligne via la plateforme. L'exemple suivant de syntaxe Turtle donne le détail du texte. Nous constatons que les toponymes « Nagar », « Ṭabatum » et

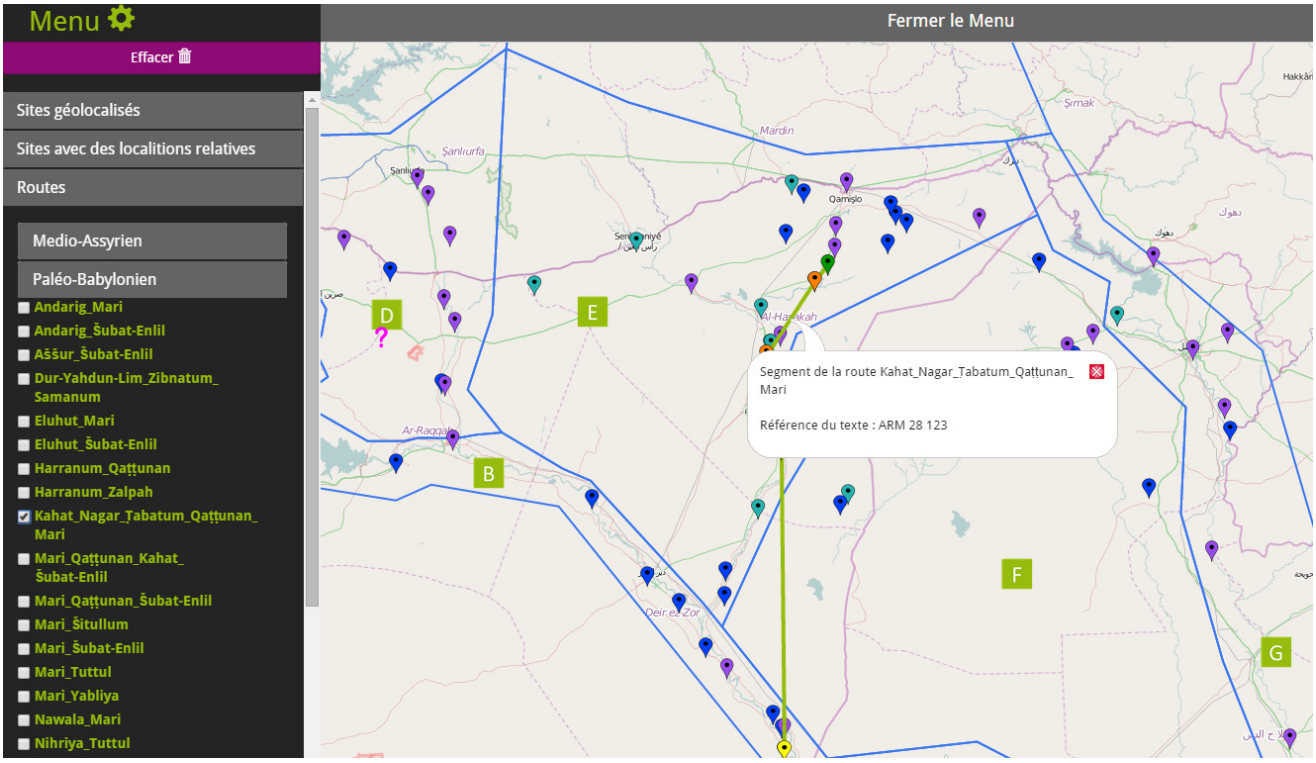

Fig. 14: Capture d'écran de la plateforme web TexTelSem affichant la route « Kahat–Nagar–Ṭabatum–Qaṭṭunan–Mari »

« Qaṭṭunân » apparaissent dans le texte ce qui justifie les étapes

```
tts:textOB-7034  rdf:type    tts:Text ,
                             owl:NamedIndividual ;
                 tts:hasTraduction    «(1-5) Dis à
notre père Zimri-Lim : ainsi (parlent) Kabiya et
Yumraṣ-El, tes fils. (6-7) Nous nous étions mis en
route vers notre père, (8) mais la pluie (9) et
la neige (10) nous ont retenus ; (13) elles nous
ont retenus (11) depuis Nagar (12) jusqu'à Ṭaba-
tum. (14) Maintenant, le jour (18) où nous avons
fait porter (15) notre présente (14) tablette (16-
17) à notre père, (20) nous sommes arrivés (19) à
Qaṭṭunân.»^^xsd:string ;
                 tts:hasRefKey
                        "ARM 28 123"^^xsd:string .
```

Les toponymes « Kahat » et « Mari » n'apparaissent pas dans le texte. Toutefois d'après les experts, le roi de Kahat écrit au roi de Mari pour une fête religieuse. Ils se sont donc mis en route de « Kahat » pour aller à « Mari » en passant par « Nagar », « Ṭabatum » et « Qaṭṭunân ».

5.2 Des descriptions aux textes

L'exemple de cette sous-section reprend l'exemple de l'objet « relatedInformationsOB-1966 » décrit précédemment (cf. 4.1.3) afin de comprendre comment l'application Web TexTelSem permet de rechercher les informations. La Figure 15 montre l'infobulle du toponyme possédant l'identifiant HiGeoMes 29, c.-à-d. « Nagar ». Cette infobulle apparaît lorsque la souris passe au-dessus du toponyme sur la carte. Nous constatons grâce au petit diamant vert à côté du terme Nawar dans l'infobulle que la géolocalisation du site est sûre grâce notamment au lien existant avec le site moderne « Brak, Tall ». Cette information provient de la base ArchiBab et de la base HiGeoMes, ayant été préalablement validées par des experts philologiques et archéologiques (Fink, 2016). Nous retrouvons également dans l'infobulle l'ensemble des informations disponibles.

Un click sur le toponyme permet d'affiche l'infobulle contenant les descriptions. Ici, « Nagar » possède deux descriptions. Ses descriptions sont des statuts. D'une part, elle est une étape et d'autre part « Nagar » fait l'objet d'une campagne militaire. Ces descriptions peuvent être vérifiées grâce aux ressources bibliographiques fournies par l'infobulle.

A titre d'exemple, la source « ARM 27 135 » correspond au texte suivant. En rouge, il est possible de constater qu'il est bien fait référence à un pillage (razzié) entre « Nagar » et « Šabiša ».

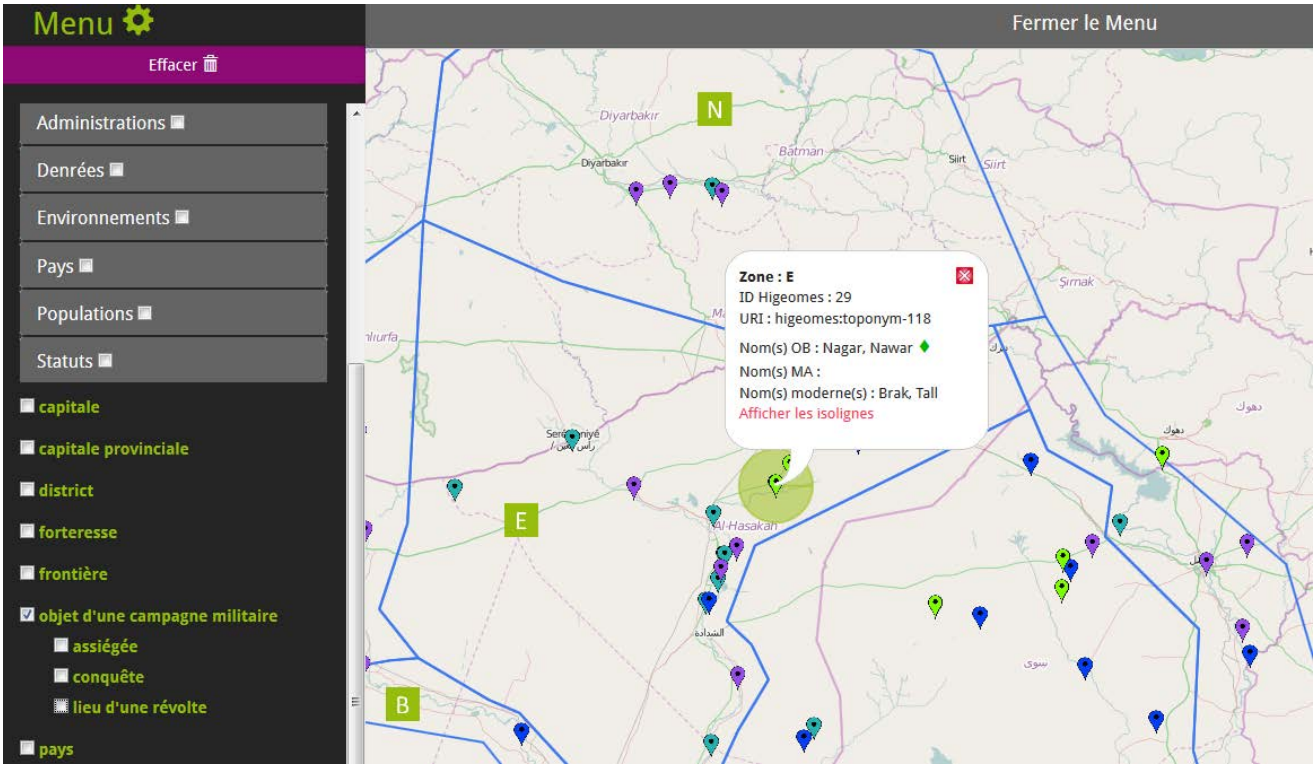

Fig. 15: Infobulle du toponyme possédant l'identifiant 29, c.-à-d. « Nagar »

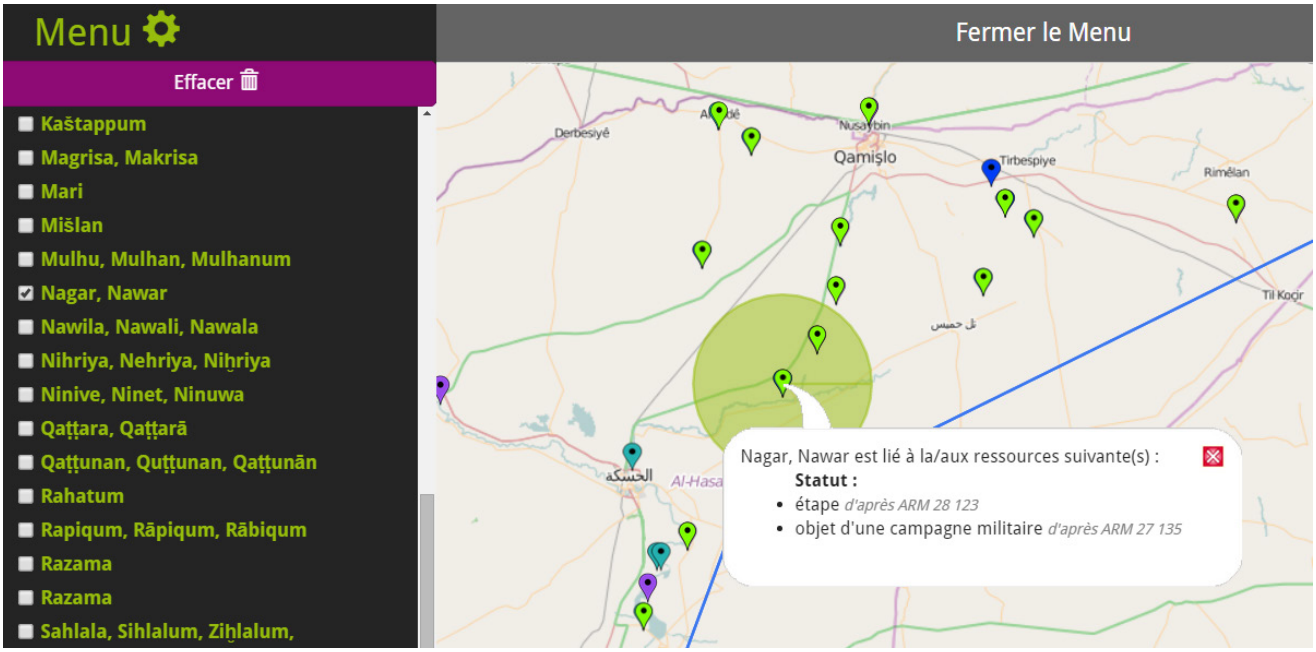

Fig. 16: Liste des descriptions et leurs ressources bibliographiques pour le toponyme « Nagar »

```
tts:textOB-6922 rdf:type   tts:Text ,
                           owl:NamedIndividual ;
                tts:hasTraduction     «(1-3) Dis à
mon seigneur : ainsi (parle) Zimri-Addu, ton ser-
viteur.  (4) Dans mon entourage j'ai appris ceci :
(5) « Haya-Sumu est arrivé et a dit : (6) « Le sire
du Numha est allé … » (7) le fermier de Haya-Sumu
de la ville de Dur(?)-…, (8) quatre Numhéens ont
été tués(?), et (9) … (10) […] les Numhéens … le
fermier de Haya-Sumu (11) … (12) Aškur-Addu et Ka-
biya (roi) de Kahat, (13) sont sortis (13-14) et ont
razzié entre Nagar et Šabiša (15) et, après avoir
enlevé 10 hommes de l'Ida-Maraṣ, (16) ils les ont
fait entrer […].  (17-20) … (21) […] libérez ! (22)
… » (23) [Voilà ce que Kabi]ya et Asqur-Addu (24)
m'ont écrit. (25) D'autre part, dans mon entourage
j'ai appris (26) ceci : « (27) Akin-Amar, le sire
de Kahat, (parle) ainsi : « (28) le sire d'Eluhut,
[le sire de …] (29) et un Akkadien (30) ont prêté
le serment. (31-32) Mais l'Akkadien qui a prêté le
serment avec eux, est-ce le sire d'Ešnunna (33) ou
bien celui de Babylone, je ne l'ai pas identifié. »
(34) Voilà ce que j'ai appris dans mon entourage
(35) et que j'ai écrit à mon seigneur : (36) que
mon seigneur le sache !»^^xsd:string ;
                tts:hasRefKey
                          "ARM 27 135"^^xsd:string .
```

5.3 Les contraintes directionnelles et géographiques

Les contraintes directionnelles et géographiques sont des éléments particuliers de la base de connaissances, car ce sont des connaissances apportées par les experts permettant d'enrichir l'ontologie en axiomes logiques. Ces contraintes permettent pour un toponyme donné et selon les connaissances actuelles de le positionner par rapport à d'autres toponymes. Il est également possible de restreindre cette zone à l'aide d'une contrainte géographique paramétrée à l'aide d'une des zones géographiques prédéfinies [B, C, D, E, F, G, N]. Les contraintes directionnelles sont limitées aux quatre points cardinaux, car l'imprécision et l'incertitude sont ainsi prises en comptes. En somme, les textes fournissent trop peu d'informations obligeant à limiter les contraintes directionnelles aux points cardinaux pour éviter toute interprétation hasardeuse. Le script Turtle suivant concernant le « toponym-44 » « Šuna » présente cinq contraintes directionnelles correspondant aux points cardinaux. Nous constatons que « Šuna » se trouve au nord du site « toponym-118» soit « Nagar », à l'est des sites « toponym-23 » soit « Ašnakkum » et « toponym-79 » soit « Urgiš » et à l'ouest des sites « toponym-304 » soit « Šehna » et « toponym-616 » soit « Harṣi ». Ces contraintes forment un réseau qu'il est possible de qualifier à l'aide d'un moteur d'inférence. Celui-ci calcule la fermeture transitive et indique une incohérence lorsque, par exemple, deux toponymes sont au nord l'une de l'autre.

```
tts:toponym-44
    rdf:type                tts:Toponym ,
                            owl:NamedIndividual ;
    tts:hasType             3 ;
    tts:hasIdOldBabylonian  47 ;
    tts:hasArea             «E»^^xsd:string ;
    tts:hasOldBabylonianName
                            «Šuna»^^xsd:string ;
    tts:isInStage           tts:stageOB-33 ,
                            tts:stageOB-783 ;

    tts:isNorthOf           tts:toponym-118 ;
    tts:isEastOf            tts:toponym-23 ;
    tts:isWestOf            tts:toponym-304 ,
                            tts:toponym-616 ;
    tts:isEastOf            tts:toponym-79 .
    tts:isNearOf            tts:toponym-304 ;
```

La Figure 17 est une capture d'écran de la zone de contraintes directionnelles et géographiques du toponyme « Šuna ». Les formes violettes sont les contraintes directionnelles, et le polygone bleu forme l'intersection des contraintes à la fois géographiques (zoneE) et directionnelles. Pour ainsi dire, ce polygone forme une zone de probabilité élevée même s'il est difficile d'affirmer comme vrai que « Šuna » se trouve dans cette zone de contraintes. L'infobulle récapitule l'ensemble des informations permettant de définir le polygone de contraintes.

Pour finir sur l'exemple du toponyme « Šuna», nous savons que celui-ci se trouve proche de « Šehna » (tts:isNearOf tts:toponym-304). Cette information est intéressante pour estimer les durées de trajets, mais il n'est malheureusement pas possible de manière simple de représenter cette contrainte. En effet, à partir de quelle distance un toponyme est-il loin d'un autre ? Cette frontière est artificielle, mais cette information renseigne toutefois sur la proximité d'un toponyme, la probabilité de cette proximité étant décroissante avec la distance.

La Figure 18 présente la fonctionnalité de la plateforme Web TexTelSem permettant de renseigner l'ensemble des toponymes hypothétiques respectant les contraintes directionnelles et géographique sur un clic. En effet, après un clic à distance de « Nagar », l'infobulle fournit la liste des toponymes possibles, car le point cliqué se trouve dans les zones de contraintes de chaque toponyme de la liste.

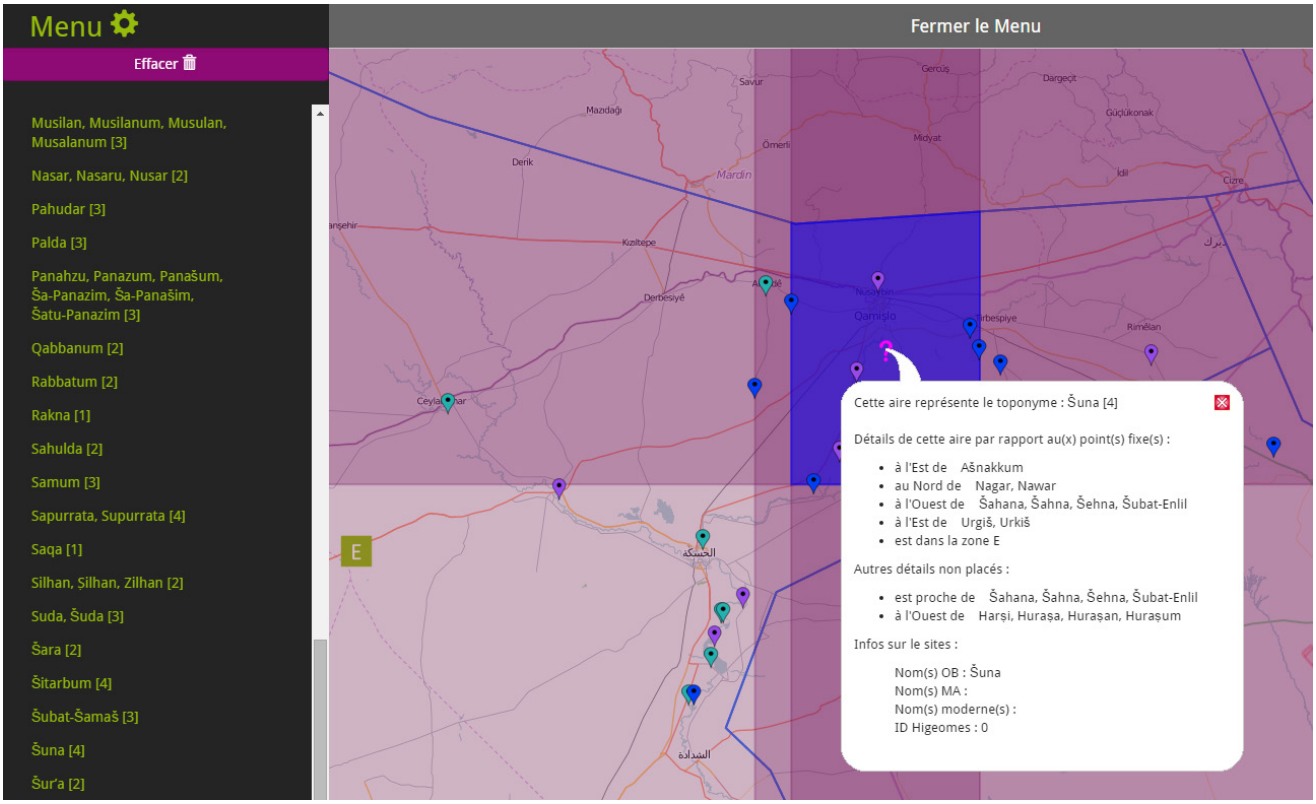

Fig. 17: Capture d'écran de la zone de contraintes directionnelles et géographiques du toponyme « Šuna »

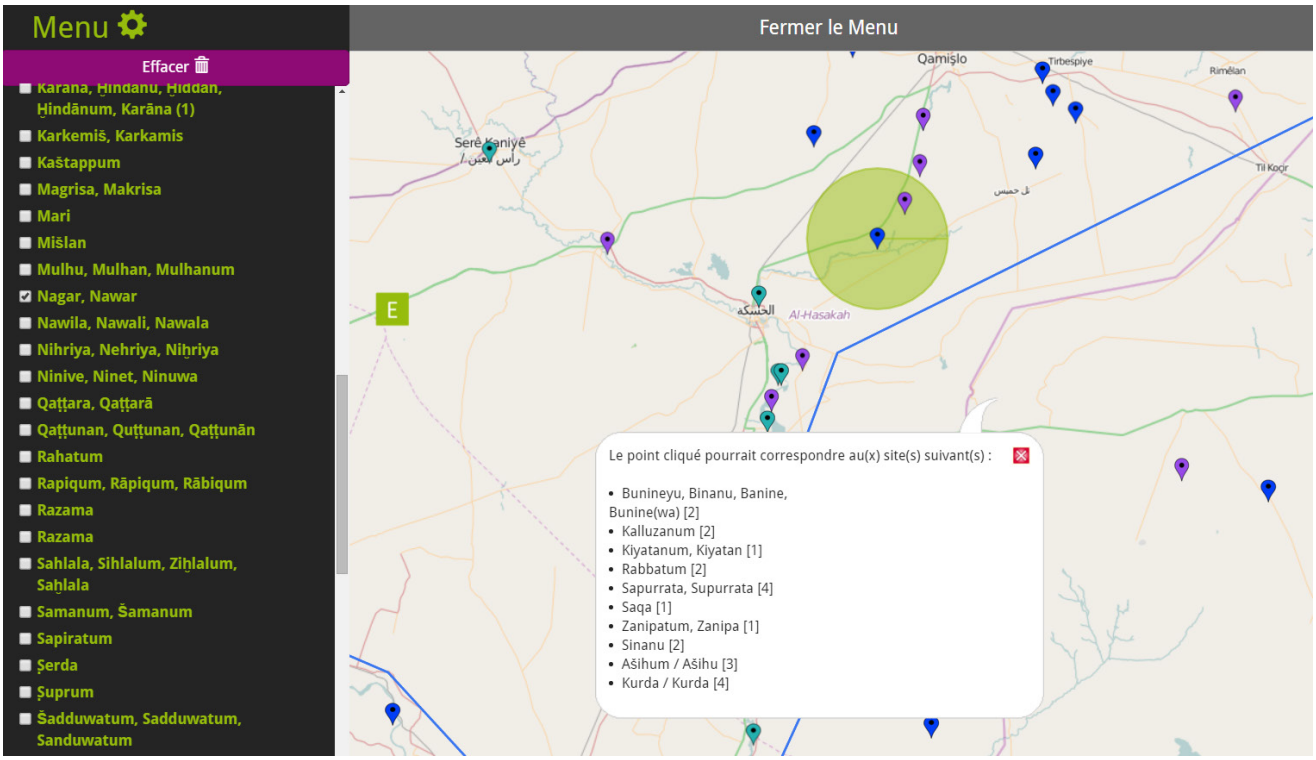

Fig. 18: Capture d'écran de la liste des toponymes dont les contraintes directionnelles et géographiques indiquent la présence hypothétique au point cliqué

5.4 Les routes partielles

Dans cet exemple, nous n'avons pas la géolocalisation précise du toponyme « Šuna », mais nous avons son polygone de contraintes directionnelles et géographiques (cf. Figure 17). Bien que nous ne sachions pas exactement où positionner sur la carte « Šuna », nous avons pris la décision de le positionner au centre du polygone. Ainsi, la plateforme Web est capable de représenter la route « Šehna-Šuna-Amaz » et ses trois toponymes. Le point concernant « Šuna » est mobile et peut faire l'objet d'une gestion à part de son placement sur la carte.

La Figure 20 montre que le toponyme « Amaz » est également non géolocalisé et possède un polygone de contraintes directionnelles et géographiques. Par conséquent la route « Šehna-Šuna-Amaz » est particulière en ce sens qu'elle possède deux toponymes non géolocalisés, « Amaz » et « Šuna ». Seul le toponyme « Šehna » possède une géolocalisation. Toutefois grâce aux contraintes directionnelles, la plateforme est capable de représenter cette route sur la carte. Nous pouvons constater que les polygones de contraintes des toponymes « Amaz » et « Šehna » se chevauchent. Cela implique qu'il n'est pas possible de positionner même relativement « Amaz » par rapport à « Šehna ».

Dans le texte qui fait référence à la route « Šehna–Šuna–Amaz » accessible à l'aide d'un click sur un segment de route, nous constatons bien la séquence temporelle « Šehna–Šuna–Amaz » (cf. script Turtle suivant). Cela ne signifie pas pour autant que la séquence directionnelle est la même. En effet, il est indiqué que le serviteur Yamṣum souhaite aller à Mari qui se trouve bien plus dans le sud par rapport aux polygones de contraintes tout en suivant la séquence 1. Ils sont allés au secours de « Šehna » 2. Puis, ils sont allés de « Šehna » à « Šuna » 3. Puis, de « Šuna » à « Amaz ».

```
higeomes:textOB-7481    rdf:type higeomes:Text ,
                                owl:NamedIndividual ;

                        higeomes:hasTraduction «(1)
Dis à mon seigneur : ainsi (parle) ton serviteur
Yamṣum. La ville et la troupe de mon seigneur vont
bien.  (4) J'ai écouté la tablette que mon sei-
gneur m'a fait porter. (5) Mon seigneur m'a écrit
en ces termes : « (6) Haya-sumu [m'a écrit] au su-
jet de [ton départ] (7) en ces termes : "J'ai ren-
voyé Yamṣi'um mais [il ne veut pas s'en a]ller". »
(8) Or mon seigneur m'avait écrit ceci : « Si
(9) Haya-sumu t'ordonne [de partir], réponds-lui
ceci : "(10) Si tu me renvoies, (11) renvoie-moi
avec mes soldats. (12) Coupe la frange et fais
ainsi connaître ton hostilité ; (13) alors, je
m'en irai". Lorsque tu [auras ...] cette nouvelle,
(14) envoie-moi (13) le […] de ta tablette (14) et
[fais] ce que je t'ai de[mandé] ». (15) Voilà ce
que mon seigneur m'avait écrit. (16) Mon seigneur
[lui a fait porter] une tablette [ainsi rédigée :]
(17) « Fais attention à cette tablette et […] comme
des paroles ». [Voilà ce que] (18) mon seigneur
lui a écrit, mais il a ... au sujet de mon départ.
(19) Que mon seigneur en soit informé.  (20) Avant
que la tablette de mon seigneur ne [me] parvienne,
[Atamrum] (21) [a envoyé x] cents soldats ainsi
que le général Taki. [Taki] (22) a pris la tête
de ces soldats et [j'ai] dit : « (23) Nous voulons
aller à Mari ! ». Ces soldats (24) sont al[lés
au seco]urs de Šehna. (25) Puis ils sont al[lés
de] Šehna à Šuna (26) [et de Šuna] à Amaz. (27)
```

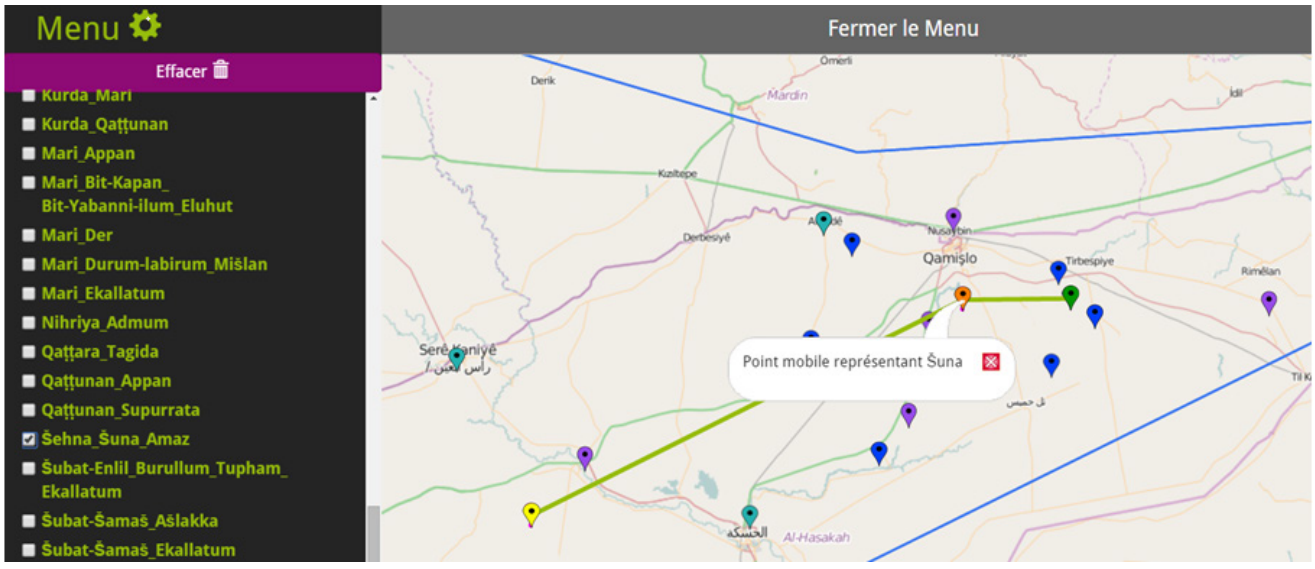

Fig. 19: Capture d'écran de la route partielle « Šehna-Šuna-Amaz »

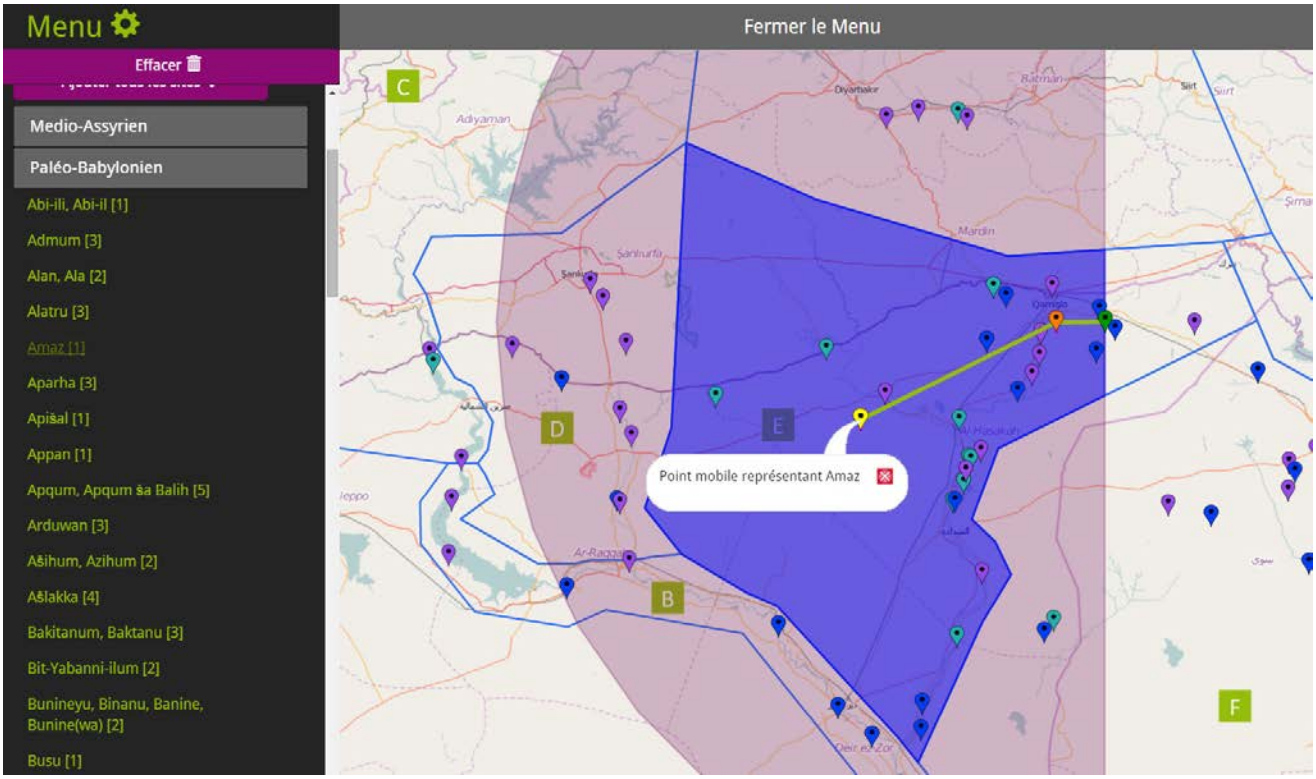

Fig. 20: Capture d'écran de la position relative du toponyme « Amaz »

```
[Là où] ces soldats arrivent, [ils remportent] la victoire (28) [S]i ces soldats qui sont allés à la rescousse, (29) avaient affronté l'ennemi (30) pas un seul homme ne s'en serait sorti. "[19] xsd:string ;

    higeomes:hasRefKey «ARM 26/2 313»^^xsd:string .
```

La capture d'écran de la Figure 21 représente la route « Nawila–Mari » de direction nord-sud et la route « Šehna–Šuna–Amaz » de direction est-ouest. Il semble improbable d'après les éléments en notre possession que le toponyme « Amaz » soit aussi excentré de la route de « Nawila–Mari ». Il est fort probable que le toponyme « Amaz » soit à une distance de « Šuna » proche de la distance entre « Šehna » et « Šuna ». Ceci dit avec la particularité d'être un peu plus au sud, car le déplacement se fait en direction de « Mari ».

L'indice suivant de la Figure 22 montre les lignes isochrones des temps estimatifs de déplacement depuis le toponyme « Nawila » correspond au toponyme violet au milieu de l'isochrone centrale. Même si ces temps de déplacement ne sont que très approximatifs dans l'absolu, ils montrent toutefois qu'il est plus difficile de se déplacer vers le nord que vers le sud, et que la région au sud de « Nawila » semble homogène. De plus et en considérant les éléments déduits précédemment, le toponyme « Amaz » '*pourrait*' se localiser entre la première et la troisième ligne isochrone au sud de la position actuelle de « Šuna » peut-être dans l'axe « Nawila–Nagar » en direction de « Mari ».

Tous les éléments déduits ne peuvent pas être considérés comme vrais. Toutefois, ils offrent l'avantage de réduire la zone de recherche en vue d'identifier un toponyme moderne correspondant à des fouilles archéologiques permettant d'identifier « Šuna » et « Amaz ».

6. Conclusion

Cet article a présenté la plateforme Web TexTelSem dont l'objectif premier est la représentation géospatiale des informations des bases de données philologiques. Cette plateforme est en rupture vis-à-vis des systèmes actuels du domaine, car elle forme un index géospatial pour accéder à l'information et aux textes des époques paléo-babylonienne et médio-assyrienne. Grâce à la modélisation des connaissances expertes implicites et explicites, la plateforme offre la possibilité de vérifier des hypothèses sur la géolocalisation des toponymes à partir de données incomplètes, imprécises et incertaines. En amont, le processus de qualification des données, prérequis à l'enrichissement

19 L'archive ARM 26/2 313 n'est pas fournie dans sa version complète.

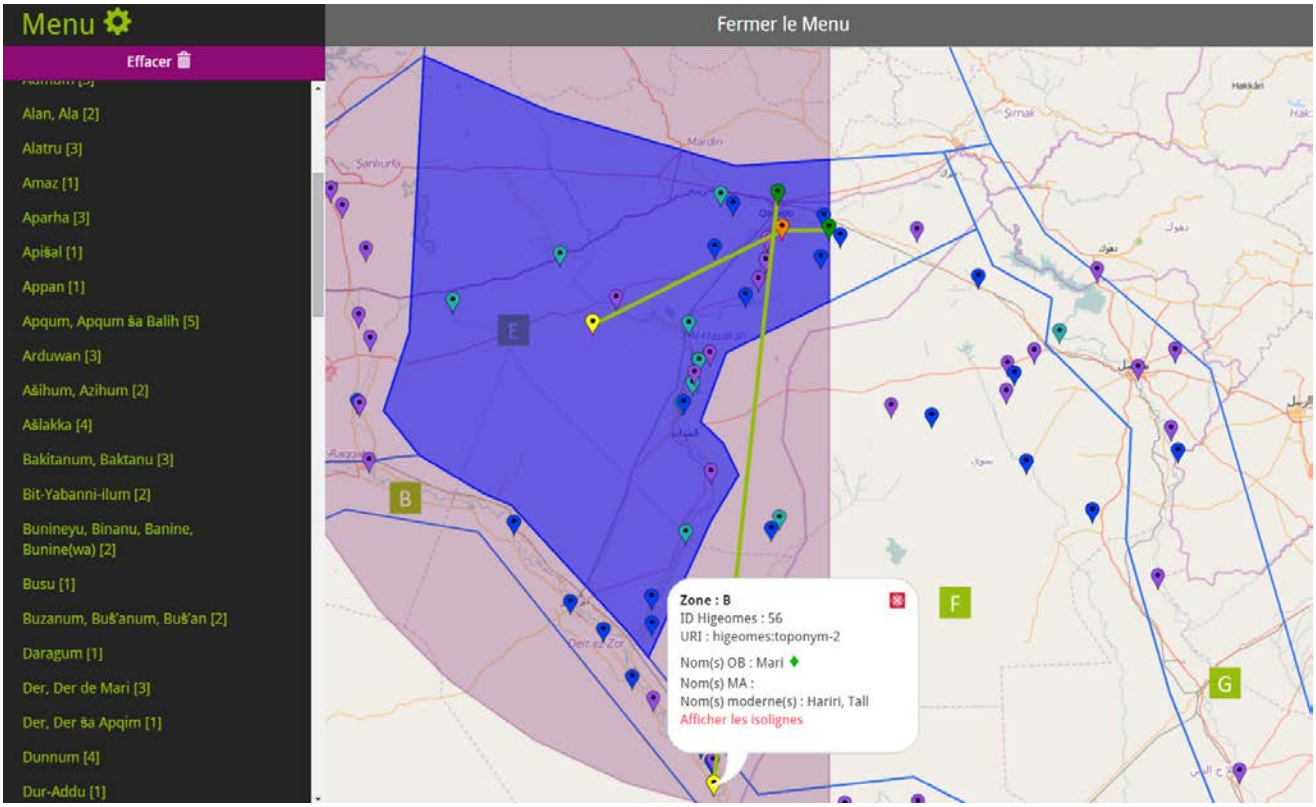

Fig. 21:. Capture d'écran de la route « Nawila-Mari » et « Šehna-Šuna-Amaz »

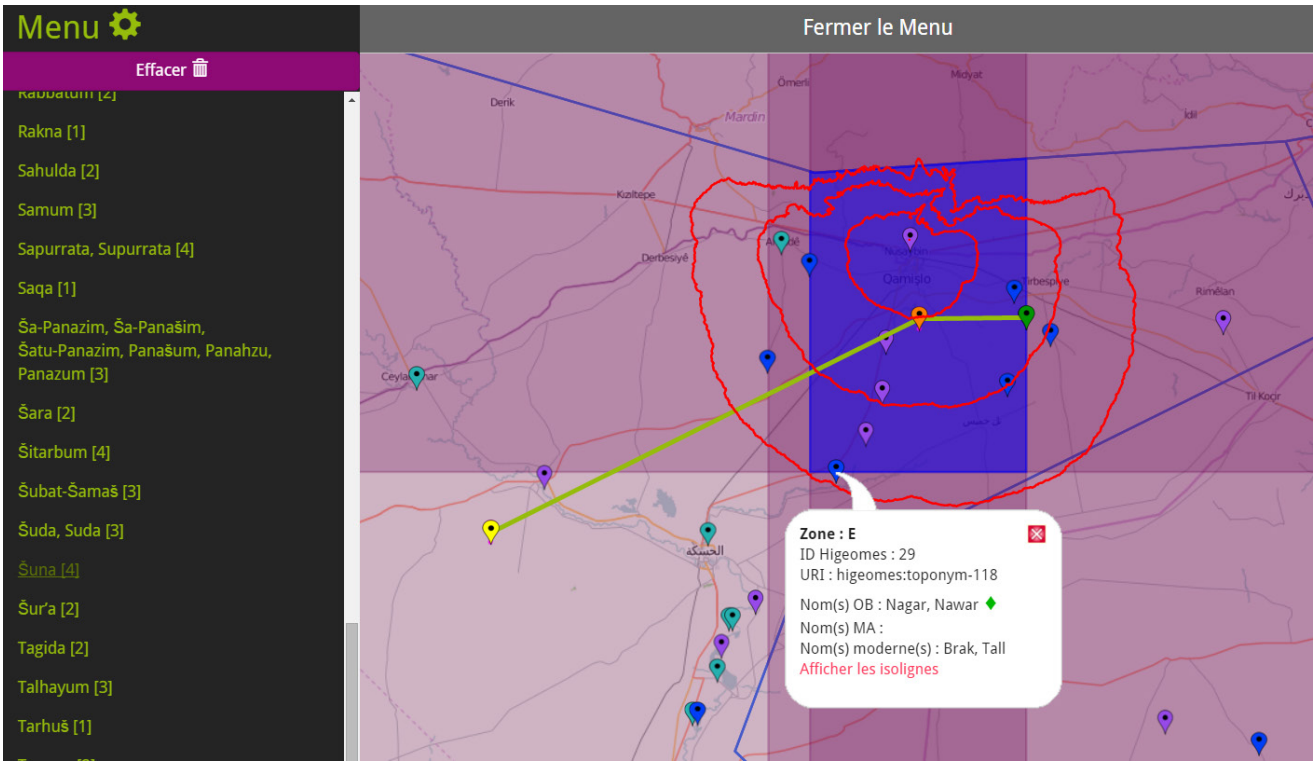

Fig. 22: Lignes isochrones de « Nawila » - 6h de marche entre deux lignes rouges

et au peuplement de la base de connaissances ontologiques, valide les données philologiques améliorant ainsi à la fois les bases de données philologiques et les connaissances concentrées dans l'ontologie. De plus, le paradigme du monde ouvert définissant ce qui ne peut être possible dans la conceptualisation que les experts se font de la civilisation mésopotamienne apporte une souplesse lors de l'intégration de nouvelles connaissances dans l'ontologie. Quant au processus de modélisation du schéma de l'ontologie, celui-ci gravite autour de trois axes qui sont l'axe « Toponyme-Texte », l'axe « Route-Etape » et l'axe « Informations-Relatives ». Ces axes sont artificiels en ce sens que les connaissances forment un graphe orienté sémantique possédant des contraintes définies à l'aide d'axiomes logiques. C'est pourquoi les connaissances forment un grand graphe complexe et sa subdivision en axes ne repose que sur une vision experte des connaissances. Nous avons modélisé dans ce graphe à la fois une ontologie riche décrivant les concepts, relations et attributs des objets du domaine, ainsi que les contraintes directionnelles et géographiques. De plus, nous avons modélisé une ontologie légère sous la forme d'une taxonomie afin de définir une hiérarchie de mots clés définissant les descriptions des toponymes. Du point de vue de l'interface homme-machine, la solution développée permet de naviguer à l'aide d'une interface Web dans l'ensemble des connaissances du domaine, de rechercher des routes et des étapes, de rechercher les descriptions associées, et de visualiser des informations qui ne sont pas nécessairement géolocalisées dans la base de connaissances ontologiques.

D'un point de vue conceptuel, le domaine de la modélisation des connaissances par l'usage des ontologies à base de descriptions logiques et des technologies du Web sémantique permet la gestion de l'incomplétude des données. Ce point est important dans le contexte présent, car les informations philologiques se caractérisent par leur incomplétude intrinsèque. Malheureusement, ces informations se caractérisent également par leur imprécision et incertitude. D'ailleurs lorsqu'il est possible dans la plateforme Web TexTelSem, nous indiquons le niveau de certitude de l'information comme la certitude de la géolocalisation des toponymes à l'aide d'un diamant de couleur dans les infobulles (cf. Figure 15). Cette gestion de l'incertitude et de l'imprécision est en cours d'étude dans le cadre de ce projet afin de gérer celle-ci au niveau propositionnel et non au niveau logique, et afin d'apporter un meilleur niveau granularité dans la définition de ces propriétés. Cet apport se fait à l'aide notamment de la logique probabilistique, de la logique possibiliste et de la logique floue (Lukasiewicza & Stracciab, 2008).

Pour conclure, il serait intéressant d'étendre l'intégration des données philologiques à d'autres ressources disponibles sur le Web afin d'enrichir et peupler la plateforme en nouvelles connaissances permettant ainsi de valider des hypothèses à la croisée de différents domaines experts. Malheureusement, cette intégration facilitée par l'usage d'une ontologie requiert une phase de rétroconception des connaissances afin d'ajuster les modèles hétérogènes.

7. Remerciements

Les auteurs souhaitent remercier les financeurs du projet en l'occurrence l'ANR-DFG pour les fonds ANR-13-FRAL-0008[20] et ANR-10-FRAL-0003[21]. Les auteurs souhaites également remercier l'ensemble des responsables et intervenants des projets TexTelSem et HiGeoMes.

8. Note des éditrices

Ce texte a été soumis en 2015 et n'a pas été actualisé depuis. Malheureusement, la plateforme Web TexTelSem élaborée par Christophe Cruz et Mélodie Poncet, dont on trouvera ci-dessus des copies d'écran, n'a pas pu être rendue accessible de manière pérenne à l'issue du projet ANR/DFG. Nous pensons néanmoins utile de publier ce texte comme un jalon dans une démarche collective qui se poursuit.

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2.

Reisende und Reisen in Obermesopotamien

Voyageurs et voyages à travers la Haute-Mésopotamie

Travellers and trips in Upper Mesopotamia

Tell Qabr Abu al-ʿAtiq sur le moyen Euphrate: une nouvelle étape sur la route de la steppe à la période médio-assyrienne*

Aline Tenu*
Juan-Luis Montero Fenollós**
Francisco Caramelo***

Depuis une trentaine d'années, les fouilles qui se sont multipliées en Syrie ont livré de nouveaux sites médio-assyriens dont la fouille a permis de considérablement renouveler notre perception et notre compréhension de l'expansion médio-assyrienne. Pourtant des vides importants subsistaient notamment pour la vallée de l'Euphrate entre le Balih et le Habur. Pendant longtemps, le seul indice d'une présence médio-assyrienne dans cette portion de la vallée provenait de la prospection allemande conduite par K. Kohlmeyer sur le site de Qabr Abu al-ʿAtiq. Il y avait ramassé de nombreux tessons médio-assyriens et l'avait interprété comme une « base de vie »[1]. Le site a été fouillé entre 2008 et 2010 par une mission syro-espagnole dont les recherches ont confirmé la présence d'un établissement médio-assyrien[2].

Dans le cadre de cette publication consacrée aux itinéraires en Haute-Mésopotamie, nous souhaiterions présenter l'hypothèse que Tell Qabr Abu al-ʿAtiq ait constitué une étape de la route de la steppe qui, à l'époque médio-assyrienne, permettait de relier Aššur à Dūr-Katlimmu, et partant que cette route ait en fait desservi toute la partie sud de l'empire assyrien[3].

I. Tell Qabr Abu al-ʿAtiq

Le site se trouve sur la rive gauche de l'Euphrate à l'entrée du défilé de Hanuqa (l'Etrangleur en arabe)[4] qu'il contrôle (**fig. 1**). Le tell couvre environ 6 ha et est entouré vers l'est d'une ville basse du Bronze ancien dont la forme irrégulière est due à une forte érosion.

En 2008 au sommet de la colline principale du tell est apparu un bâtiment en briques crues daté du Bronze récent II qui, malheureusement, a par endroit été endommagé par des tombes islamiques. Il a été violemment détruit par le feu, ce qui a permis une relativement bonne conservation des vestiges, d'autant qu'une partie importante du matériel n'a pas été déménagée avant l'incendie.

Jusqu'à présent cinq pièces ont été fouillées, deux complètement (1 et 3) et trois partiellement (2, 4 et 5). Les deux pièces entièrement dégagées mesurent respectivement 2,85 × 5,80 m (16,53 m²) et 2,85 × 6,63 m (18,89 m²). Les murs, de 0,80 à 1,20 m d'épaisseur, étaient montés en briques crues de 36 à 39 cm de côté sur un soubassement de pierre. Les sols étaient en terre battue **(fig. 2)**.

* Cet article rédigé en 2013 a été mis à jour en 2020 et 2021 pendant la pandémie, à un moment où l'accès aux bibliothèques et aux centres de recherché était très limité. Nous tenons à remercier tous nos collègues qui ont accepté de partager avec nous leur bibliothèque numérique.

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1 Einwag, Kohlmeyer & Otto 1995, p. 102, 104, note 21.

2 La 4e campagne, prévue pour mai 2011, a été annulée à cause du conflit en Syrie. Montero Fenollós *et al.* 2010 et 2011 et Montero Fenollós 2015 ; Tenu *et al.* 2012.

3 Dans son étude récente des voies de circulation dans l'ouest de l'empire assyrien, Aurélie Paci qui a eu accès à cette contribution encore inédite a retenu notre hypothèse (Paci 2019).

4 Sur le verrou basaltique de Hanuqa, voir Montero Fenollós 2016.

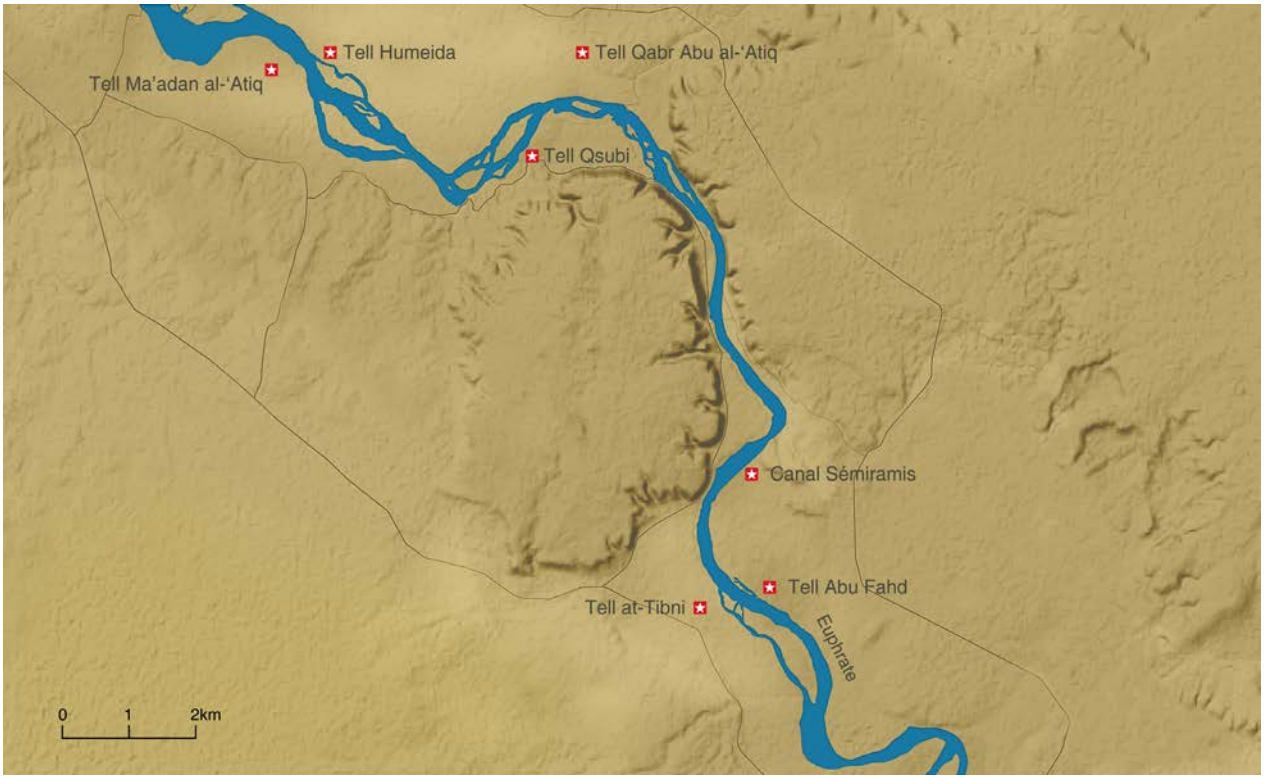

Fig. 1: Situation de Tell Qabr Abu al-'Atiq et du canal Sémiramis au verrou de Hanuqa (carte: J.M. Gaspar, fond de carte USGS)

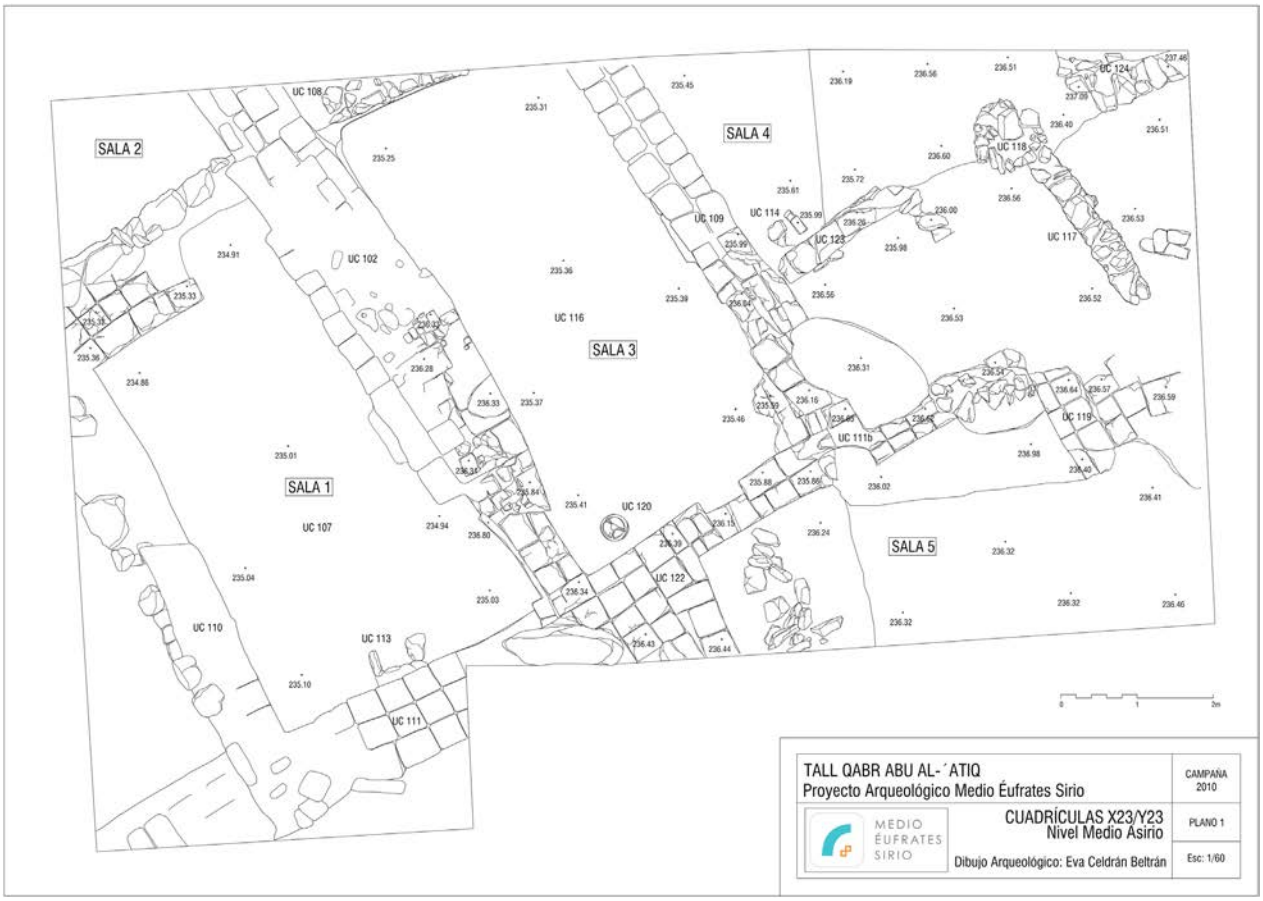

Fig. 2: Pièces fouillées du bâtiment médio-assyrien de Tell Qabr Abu al-'Atiq (plan: E. Celdrán, PAMES)

Fig. 3: Pièce 3 en cours de fouille. Tell Qabr Abu al-'Atiq (photo: V. Rivera, PAMES)

Fig. 4: Mobilier restauré de la pièce 3. Tell Qabr Abu al-'Atiq (photo: V. Rivera, PAMES)

Une très grande quantité de matériel céramique – jarres de stockage, bols carénés, bols profonds, gobelets, passoire, etc. – a été découverte en place (**fig. 3**). Cet assemblage constitue un excellent exemple du corpus médio-assyrien dit officiel ou standard officiel (**fig. 4**). L'étude comparative et typologique de la céramique de Tell Qabr Abu al-ʿAtiq montre que l'essentiel des formes trouvées sur ce site du moyen Euphrate méridional sont représentées dans des niveaux datés du règne de Tukultī-Ninurta I[er] (périodes Jézireh Moyen IIA et début du IIB) sur d'autres sites situés plus au nord (Tell Šeih Hamad, Tell Sabi Abyad et Tell er-Rimah)[5].

Dans la pièce 3, qui a livré le plus important lot céramique, furent mises au jour deux tablettes partiellement couvertes par deux poteries et par une poutre carbonisée. Plus généralement, dans cette pièce comme dans les pièces voisines, de nombreuses traces de la destruction violente et de l'incendie ont été reconnues : poutre brûlée, charbon de bois, portions d'argile portant l'empreinte du plafond et briques crues tombées sur le sol. Les restes de couverture ne permettent cependant pas encore de savoir si le bâtiment comptait un étage, ce qui était probable. De plus, dans l'angle sud-est de la pièce 1, un pilon avec des restes de teinture rouge fut découvert à proximité d'un minerai d'oxyde de fer, ce qui indique clairement une activité pour obtenir du pigment rouge (**fig. 5**). Ce dernier a peut-être été utilisé pour teindre du textile ou pour décorer les murs[6].

Fig. 5: Pilon en basalte avec de restes de pigment rouge. Tell Qabr Abu al-ʿAtiq (photo: E. Taboaba, PAMES)

Les tablettes, de petites dimensions, sont des textes administratifs écrits en dialecte médio-assyrien et l'une porte des traces de plusieurs scellements. Un texte, daté de l'éponymie d'Abattu, fils d'Adad-šumu-lēšir, c'est-à-dire de la 11[e] année de règne de Tukultī-Ninurta I[er][7] (donc vers 1232 ou 1222 av. J.-C. selon la chronologie utilisée), donne ainsi la date *post quem* de la destruction du bâtiment. Il n'y a pas, dans ces textes, de référence au nom antique du site[8].

Divers datations radiocarbones (neuf au total) sont connues pour la pièce 1 (1380-910 BC cal.), la pièce 3 (1410-1210 BC cal.) et la pièce 4 (1270-1050 BC cal.), mais elles sont malheureusement trop larges pour préciser la date de la destruction du site. En revanche, la comparaison des données obtenues par le radiocarbone (C-14), par l'analyse du mobilier archéologique, notamment la céramique, et par l'étude des tablettes cunéiformes a montré tout l'intérêt scientifique des approches interdisciplinaires pour la connaissance de la chronologie mésopotamienne. Cette étude comparative a permis d'obtenir un résultat qui confirme les thèses des chronologies hautes attribuées au règne de Tukultī-Ninurta I[er] (1243-1207 / 1240-1205 av. J.-C.) et situe, en principe, l'occupation médio-assyrienne de Tell Qabr Abu al-ʿAtiq entre 1286 et 1226 av. J.-C. (c'est-à-dire sous les règnes d'Adad-nērārī I[er], Salmanazar I[er] et Tukultī-Ninurta I[er])[9].

Les dimensions réduites du site (58 sur 45 m environ), qui rappellent celles de Tell Sabi Abyad (60 sur 60 m)[10], ainsi que la forme des pièces très comparables à celles dégagées dans le Palais P de Šeih Hamad / Dūr-Katlimmu[11] suggèrent que le site était un *dunnu*, peut-être construit et détenu par un haut fonctionnaire de Dūr-Katlimmu. Les fouilles de Giricano, l'ancienne Dunnu-ša-Uzibi, ont montré que le terme *dunnu* correspondait à une formule administrative ou juridique qui ne déterminait pas un type de site particulier et ne conditionnait pas la présence d'une enceinte fortifiée[12]. L'activité de Tell Sabi Abyad[13] et de Giricano était ainsi essentiellement tournée vers la mise en valeur agricole des terres alentour. La situation de Tell Qabr Abu al-ʿAtiq ne paraît guère favorable à une installation de même type et on peine à imaginer que le but de

5 Tenu, Montero Fenollós & Caramelo 2012, p. 145 ; Montero Fenollós 2015, p. 35-59.

6 Ceux qui ont été mis au jour jusqu'à présent sont conservés sur une trop faible hauteur pour étayer cette hypothèse, mais des décors avec du pigment rouge ont été découverts dans le palais sud de Kâr-Tukultî-Ninurta (Eickhoff 1985, p. 35-36) et dans le palais de Tell al-Hamidiya (Eichler, Wäfler & Warburton éd. 1990, 251-252). Des décors peints ornaient également des pièces dégagées sur le site de Tell Taban (Numoto 2006, 2006, p. 8 et Numoto 2007, p. 7). Sur l'interprétation de ce bâtiment, voir Tenu 2020b.

7 Freydank 2016, p. 22 ; Montero Fenollós, Sanjurjo & Márquez 2018, p. 152-153.

8 Cancik-Kirschbaum & Hess 2016 : carte 3 et Fink 2017 ne proposent pas de toponyme médio-assyrien pour Qabr Abu al-ʿAtiq.

9 Montero Fenollós, Sanjurjo & Márquez 2018.

10 Akkermans 2006, p. 203.

11 Pour une presentation de Dur-Katlimmu à la période médio-assyrienne et du Bâtiment P, voir Kühne 2016.

12 Schachner 2004, p. 5.

13 Pour une présentation générale du site, voir Akkermans & Wiggermann 2015 et Klinkenberg 2016.

l'installation du site soit l'agriculture tant la région environnante y est peu propice[14]. En revanche, le site bénéficie d'un emplacement extrêmement stratégique qui lui permet de tenir et de contrôler ce territoire particulier situé en face de la steppe, au débouché du défilé de Hanuqa, à la frontière des zones hittite et kassite. À ce jour, Tell Qabr Abu al-ʿAtiq paraît relativement isolé sur une marge lointaine, peu occupée et exploitée par les Assyriens. Il n'en constitue sans doute pas moins un élément essentiel dans le contrôle de la partie méridionale de l'Empire car il s'agissait peut-être d'une nouvelle étape sur la route prolongeant vers l'ouest la route existant entre Dūr-Katlimmu et Aššur.

II. La route de la steppe

La présence d'une route passant par la steppe et reliant Aššur, la basse vallée du Habur, puis le haut Balih en direction ensuite de l'Anatolie a d'abord été proposée par H. Kühne[15]. Son article était essentiellement consacré à Malhat ed-Deru, un site de type *Kranzhügel* de 670 m sur 560 m , à 48 km au nord-ouest du site de Tell Šeih Hamad[16]. Sa thèse concernait en fait la période paléo-assyrienne, au début du II^{e} millénaire av. J.-C., quand les marchands de la ville d'Aššur avaient organisé un commerce lucratif avec les sites de Cappadoce. Dans la carte publiée alors, le tracé de la route passait par Hatra et rejoignait le Habur, à proximité de Tell Fagdami ou de Dūr-Katlimmu, 30 km au nord. Vers l'ouest la route se poursuivait, passait par Malhat ed-Deru puis bifurquait vers le nord-ouest pour atteindre le Balih (Zalpa) et l'Anatolie (Kaniš)[17].

Cette hypothèse connut un nouveau développement quand en 1983-1984, une prospection conjointe de la mission de Tell Šeih Hamad et du *Tübinger Atlas des Vorderen Orients* (TAVO) fut menée dans la steppe à l'est de Tell Šeih Hamad, dans le Wadi ʻAgig. Quarante-deux sites furent identifiés dont cinq attribués à l'époque médio-assyrienne. L'un d'eux retint plus particulièrement l'attention des archéologues, Tell Umm ʻAqrebe, localisé à environ 45 km à l'est de Tell Šeih Hamad. Il s'agit d'un site plutôt plat comportant un tell d'environ 1 ha (une sorte de petite citadelle) entouré d'une ville basse de 13 ha[18]. Aucune fouille n'a ensuite complété les résultats de la prospection mais le matériel céramique a fait l'objet d'une étude très poussée[19].

Pendant la prospection, l'emplacement des puits a été relevé. Par ailleurs l'étude des cartes syriennes et irakiennes montra qu'il existait des points d'eau espacés d'environ 40 km sur la ligne d'environ 240 km qui séparait Aššur et Tell Šeih Hamad et qui fournissaient l'eau suffisante pour les hommes et pour les bêtes[20].

Depuis Tell Šeih Hamad, la première étape serait précisément Tell Umm ʻAqrebe distant de 45 km. À mi-chemin entre les deux sites, le puits de Ğilib el-Ḥanū permettait de se ravitailler en eau[21]. À 24 km de Tell Umm ʻAqrebe se trouvait un autre puits à Bir Mtiae. Après un léger détour vers le nord pour contourner le lac salé de Snēsla, la route se poursuivait soit par le site de Ğaradiya soit par celui de Hirbet Dibšiyah. L'occupation de ce site archéologique date de l'époque d'Uruk, du Bronze ancien et de la deuxième moitié du II^{e} millénaire, mais rien n'atteste vraiment qu'elle ait alors été médio-assyrienne. Un puits localisé à 24 km de ce dernier site permettait ensuite d'atteindre Hatra qui n'est plus éloigné que de 15 km. D'un point de vue archéologique, les restes d'une éventuelle occupation assyrienne ne sont pas connus, mais des textes du XIV^{e} siècle montrent que cette région était occupée à cette époque. H. Nissen mentionne ainsi l'existence d'un lieu appelé *gubbi ekallim* (la citerne du palais) qui était peut-être une citerne officielle[22]. À partir de Hatra, il ne restait plus que 48 km à parcourir pour atteindre Aššur.

En évaluant la distance moyenne parcourue par jour à 23 km, le trajet entre Aššur et Dūr-Katlimmu durait vraisemblablement 11 jours[23]. Cet ordre de grandeur est donné pour un trajet à pied, mais des textes de Tell Huera montrent qu'un messager sur un char pouvait couvrir une distance moyenne de 60-80 km par jour. Avec un relais pour les montures, il était possible d'effectuer ce trajet de 240 km en seulement trois journées[24]. Un transport par ânes assurait 45 km par jour environ[25].

Même si les traces archéologiques de cette route sont lacunaires, notamment en raison du manque d'exploration archéologique[26], son existence paraît probable car une liaison rapide et directe entre Aššur, capitale de l'Empire et

14 Düring 2015, p. 54.
15 Kühne 1983.
16 Kühne 1983, p. 300-301 ; Quenet & Sultan 2014
17 Kühne 1983, p. 299, abb. 1 et p. 308.
18 Kühne 2000, p. 273 et Pfälzner 1993.
19 Pfälzner 1993, Abb. 84-91.
20 Kühne 2000, p. 273-274 ; Pfälzner 1993, Abb. 10.
21 Pfälzner 1994, p. 93-94.
22 Cité par Pfälzner 1993, p. 94.
23 Pfälzner 1994, p. 94.
24 Faist 2006, p. 156.
25 Wright 2001, p. 127. Cette distance journalière paraît cependant un peu excessive pour un long trajet : une moyenne de 25-30 km est souvent retenue notamment en raison du fait que les ânes et autres accompagnateurs qui suivaient à pied la caravane ne pouvaient faire plus (C. Michel, com. pers. octobre 2013).
26 Kühne 2000, p. 274.

Dūr-Katlimmu, siège du grand vizir, roi du Hanigalbat[27], est très significative. Elle ne reflète pas tant la nécessité de faciliter les circulations que la volonté politique de structurer le territoire autour de ces deux sites.

III. La route vers l'ouest

Les routes terrestres

D'après H. Kühne, la route ne s'arrêtait pas à Tell Šeih Hamad, mais continuait vers l'ouest, notamment pour desservir le poste médio-assyrien de Tell Sabi Abyad[28]. Ce site, de dimensions modestes, était un *dunnu* principalement destiné à la mise en valeur des terres agricoles et qui était la possession du grand vizir, roi du Hanigalbat Ili-pada et certainement de son père Aššur-iddin[29]. De ce fait même, Dūr-Katlimmu et Tell Sabi Abyad étaient clairement associés, ce qui apporte un argument supplémentaire à la proposition du prolongement de la route vers l'ouest. La première étape depuis Tell Šeih Hamad était toujours Malhat ed-Deru où un seul tesson du Bronze récent avait été ramassé[30]. La route partait ensuite vers l'ouest et après le puits de Bīr Fannağina bifurquait vers le nord-ouest. Deux autres puits Bīr Boutmane et Bīr Qantari permettaient de traverser la steppe et de n'être plus qu'à 25 km de Tell Sabi Abyad. Sur la carte présentant l'ouest de l'empire[31], H. Kühne propose qu'à Bīr Fannağina la route se divisait et permettait de rejoindre Tell Biʿa, l'ancienne Tuttul, où elle s'arrêtait.

La documentation textuelle permettant de retracer les itinéraires à l'époque médio-assyriennes a été étudiée par B. Faist qui souligne combien ces textes livrent en fait peu d'informations, car ne sont souvent mentionnés que les points de départ et d'arrivée des groupes en déplacement ou une des étapes[32]. Elle dresse une carte de ces « itinéraires » avec toutes les incertitudes qu'ils comportent sur laquelle figure aussi la route de la steppe, mais sans son extension vers Tuttul[33]. Tous les documents proviennent de contextes palatiaux et administratifs. Aucune archive de marchand n'a été découverte et nous avons donc aucune information concernant les itinéraires suivis par ces derniers. Les textes, découverts pour leur très grande majorité dans la partie ouest de l'Empire, montrent que les relations commerciales étaient extrêmement importantes avec la Syrie sous domination hittite, en particulier avec Karkemiš et Emar[34]. Du point de vue politique ces deux villes se distinguent très clairement car si Karkemiš était le siège d'une vice-royauté depuis Suppiluliuma I[er], Emar apparaît, dans les textes assyriens, toujours comme une entité politique autonome. Les gens d'Emar étaient des *Imarāju* et jamais des *Hattāju* et c'est par cette ville qu'une partie importante des contacts avec Ugarit et la côte levantine passait[35].

L'importance d'Emar dans les relations assyriennes avec la côte nous a incités à proposer que non seulement la route de la steppe ne s'arrêtait pas sur le Habur mais qu'elle continuait vers l'ouest vers Tuttul et Emar en passant par le site médio-assyrien de Qabr Abu al-ʿAtiq. L'existence d'une telle voie de communication permettrait alors de parcourir cette distance dans les meilleurs délais.

Dans notre hypothèse, depuis Malhat / Hirbet ed-Deru, la route tournerait vers le sud-ouest pour atteindre Qabr Abu al-ʿAtiq, distante d'environ 50 km. Les cartes très précieuses levées dans les années 1970 par le *Defence Mapping Agency Topographic Center* de Washington montrent qu'il existe des puits permettant de se fournir en eau entre les deux sites. Ensuite, la route se dirigeait vers l'ouest en direction de la confluence avec le Balih et de Tuttul. Cette ville, qui appartenait au début du XIII[e] siècle av. J.-C. à l'Empire hittite dont elle constituait la zone frontière avec la Babylonie, passa sous domination assyrienne au cours de règne de Salmanazar I[er] entre 1260 et 1239 av. J.-C. Elle fut alors intégrée au système provincial et placé sous l'autorité d'un gouverneur[36]. Les cartes signalent de nombreux puits, dont beaucoup étaient déjà salés dans les années 1970,

27 Pour une présentation des archives de Dūr-Katlimmu, voir la synthèse propose par J. N. Postgate (2014, p. 298-326).

28 Kühne 1995, p. 71 et 2000, p. 275.

29 Wiggermann 2000, p. 172. Aššur-iddin avait précédé son fils comme grand vizir, roi du Hanigalbat (Cancik-Kirschbaum 1996, p. 19-32). Sur le titre de (grand) vizir, voir Jakob 2003, p. 55-65.

30 Kühne 1983, p. 303 et 306, Abb. 3m. Une mission syro-française dirigée par Ph. Quenet avait lancé un projet de recherche à Khirbet ed-Deru (Quenet et Sultan 2014), qui mit au jour une ville du III[e] millénaire av. J.-C. (Jézireh Ancien I-III). « Aucune trace concluante d'occupation » (Quenet 2013, p. 100) attribuable au Bronze moyen ou au début du Bronze récent n'est par la suite avérée. En revanche, des tessons datables de la toute fin du II[e] millénaire av. J.-C., soit du Jézireh Moyen III ont été ramassés (Quenet 2013, p. 100). Ces derniers correspondent à la dernière période céramique de la période médio-assyrienne, le *mA Stufe* III, identifiée par P. Pfälzner à Tell Bderi (Pfälzner 2007, p. 232, fig. 2). Je remercie très chaleureusement Ph. Quenet de m'avoir permis de consulter et d'utiliser son habilitation à diriger les recherches qui est encore inédite (Aline Tenu).

31 Kühne 1995, p. 71, fig. 02. Cet itinéraire apparaît également sur une carte publiée par E. Cancik-Kirschbaum (1996, p. 34, Abb. 7).

32 Faist 2006, p. 147-148.

33 Faist 2006, p. 149.

34 Faist 2006, p. 157.

35 Cancik-Kirschbaum 2008b, p. 93. Voir aussi Pruzsinszky 2019, p. 279-281.

36 Tenu 2020a, p. 134 et p. 139.

mais de toute façon la proximité du fleuve devait largement suffire pour les besoins en eau.

Entre Tuttul et Emar peu de sites sont connus. Le site de Tell Fray a été fouillé dans le cadre des fouilles de sauvetage du barrage de Tabqa et a livré deux niveaux (V et IV) datés du Bronze récent. Le plus récent a été violemment détruit par un incendie. La date et les circonstances de la destruction du site ne sont pas connues avec précision, peut-être vers 1265 av. J.-C. par Salmanazar Ier[37]. À moins qu'une petite installation n'ait continué sur le site après l'incendie général qui l'avait ravagé, Tell Fray, une ville-frontière témoin des conflits entre Hittites et Assyriens (une dizaine des tablettes médio-assyriennes encore inédites et une bulle portant le cachet royal de Hattušili III ont été mises au jour[38]), n'a pas dû être une étape sur la route.

La route atteignait ensuite Emar. Cette ville a livré pour le Bronze récent un palais, des temples et des quartiers d'habitations[39]. Le matériel céramique de la ville n'est connu que par les formes entières et se rattache à une tradition très largement locale. Le site a été détruit par le feu vers 1187[40] ou 1175 av. J.-C.[41] dans un contexte qui n'est pas pleinement éclairci, mais plusieurs attaques sont mentionnées avant celle-ci dont une menée par « le roi des Hourrites » pendant le règne de Pilsu-Dagan (vers 1225-1200 av. J.-C.). L'identification de cet homme a soulevé de nombreuses discussions et récemment a été repris la proposition faite par M. Astour[42] qu'il s'agisse en fait du Grand Vizir, Roi du Hanigalbat[43]. Dans ce cas, cette attaque ne serait pas la première, puisqu'un texte d'Aššur mentionne des blocs de cuivre pris de force dans la ville d'Emar à la fin du règne de Salmanazar Ier[44]. La destruction brutale du site ne fut peut-être pas la fin définitive de l'occupation, car quelques auteurs ont suggéré qu'un petit relais militaire et commercial aurait pu y être installé par les Assyriens[45].

Ensuite, la route se poursuivait vers Ugarit et la côte levantine avec lesquelles les relations sont bien documentées[46].

Une route fluviale

Il paraît vraisemblable que sur cette portion de la route comprise entre Emar et Tuttul —voire Qabr Abu al-ʿAtiq— le trajet ait pu être fluvial[47] au moins quand les conditions y étaient favorables. Le transport par bateau était particulièrement intéressant pour les marchandises pondéreuses comme le grain ou le bois par exemple. De fait, un âne ne pouvait transporter qu'une quantité limitée de produits (entre 70 et 75 kg de cuivre sont documentés pour la période paléo-assyrienne)[48]. La navigation n'était cependant possible qu'au printemps, pendant la période des hautes eaux. Les basses eaux ou au contraire les crues la rendaient dangereuse et hasardeuse.

Cette route fluviale pouvait bénéficier de ports de l'Euphrate. Le site de Thadiyain, en rive gauche, pourrait avoir été l'un d'eux. Ce tell de forme triangulaire long de 720 m présente en effet une occupation à l'âge du Bronze récent et se trouve, à vol d'oiseau, à égale distance (32 km env.) d'Emar et de Tuttul. Le site serait Abattum à l'époque paléo-babylonienne[49], mais ce toponyme n'est pas documenté, à notre connaissance, pour l'époque médio-assyrienne. On peut par ailleurs souligner que dans l'itinéraire paléo-babylonien connu sous le nom de « Road to Emar »[50], une des étapes entre Tuttul et Emar se situe justement à Abattum ce qui pourrait étayer notre hypothèse d'une route également fluviale.

Dans cette perspective, le site de Qabr Abu al-ʿAtiq occupe une place déterminante à l'entrée du défilé de Hanuqa au moyen Euphrate méridional dont le franchissement constituait une difficulté majeure. C'est peut-être là que se faisait précisément le transbordement des marchandises qui étaient ensuite chargées sur des ânes pour le transport par voie de terre vers l'est. Il y avait, à notre avis, une troisième possibilité : continuer jusqu'au bas Habur par le Nahr Sémiramis (**fig. 1** et **6**), un canal de la rive gauche d'environ 80 km de long dont la prise était située près de la forteresse byzantine de Zalabiyé (quelques kilomètres

37 Matthiae 1980, p. 50.

38 Matthiae 1980, p. 39. La datation des tablettes a par ailleurs été discutée par B. Faist (2001, p. 215 n. 73) qui les attribue plutôt à la période mittanienne.

39 Margueron 1993, p. 87-90.

40 Margueron 1995, p. 26.

41 Cohen & d'Alfonso 2008, p. 14-15 ;

42 Astour 1996.

43 La bibliographie sur cette question est trop longue pour être mentionnée de manière exhaustive, on se reportera à Yamada 2011, p. 210-213 qui reprend les références essentielles.

44 Faist 2001, p. 89-90 (MARV III 19).

45 Dietrich 1990, p. 26; Adamthwaite 1996, p. 109-110.

46 Faist 2001, p. 217-225 et Tenu 2009, p. 155-157.

47 Yamada (2011, p. 201) cite ainsi un texte d'Emar, daté de la dernière phase de l'histoire de la ville, qui mentionne un trajet fluvial entre cette ville et Tuttul.

48 Barjamovic 2011, p. 16.

49 Kohlmeyer 2012, Ziegler & Langlois 2017, p. 1-2.

50 Hallo 1964. Ziegler, Otto & Fink ce volume.

en aval de Tell Qabr Abu al-ʿAtiq)[51]. Le débouché du canal n'a été repéré avec certitude, mais il se situerait vraisemblablement au nord de Rweshed 1 (2,6 km au nord-est de Buseire)[52]. Le canal, parallèle à l'Euphrate, facilitait la navigation et la communication et raccourcissait la distance de 38 km. Nous n'avons que peu d'éléments sûrs pour dater la fondation et la durée d'utilisation de ce canal de navigation, mais une datation de l'âge du Bronze n'est pas exclue, notamment pendant l'existence du royaume de Mari (l'une des périodes de la mise en valeur de la vallée moyenne de l'Euphrate)[53]. Il est aussi probable qu'il y avait une relation entre les canaux de Sémiramis et de Dawrîn.

Fig. 6: Le canal Sémiramis à la sortie du verrou de Hanuqa (photo E. Taboada, PAMES)

Le canal de Sémiramis a pu rester en fonctionnement à la période du Bronze récent. Le témoignage d'Isidore de Charax indique que cet aménagement et son barrage existaient encore au début du I^er^ siècle après J.-C.[54]. Le transport par voie fluviale entre l'Euphrate et le Habur peut être mis en rapport avec le système régional de canaux identifiés en prospection dans la région de Dūr-Katlimmu. Les archéologues allemands ont en effet découvert sur les deux rives du bas Habur un réseau de canaux (env. 200 km de longueur), qu'ils ont daté de la période médio-assyrienne (XIII^e^ siècle av. J.-C.)[55]. Ces canaux, qui sont restés en fonctionnement jusqu'à la fin de l'empire assyrien, ont servi pour l'irrigation, le transport et l'approvisionnement d'eau pour Dūr-Katlimmu et d'autres sites voisins.

Conclusion

La route de la steppe avec son prolongement vers l'ouest (par voie terrestre ou fluviale) a vraisemblablement été mise en place pendant le règne de Salmanazar I^er^ quand Dūr-Katlimmu devint le siège du Grand Vizir, roi du Hanigalbat et que la zone du coude de l'Euphrate passa dans la sphère d'hégémonie assyrienne[56]. Jusqu'à présent, il semble que l'essentiel des *dunnu* qui sont connus par les sources textuelles ou par les données archéologiques[57] aient principalement été dévolu aux activités agricoles et à la mise en culture de terres nouvelles conquises. Notre hypothèse de travail est que d'autres types de *dunnu* aient pu exister et que Qabr Abu al-ʿAtiq ait peu avoir été confié à un haut fonctionnaire qui avait à charge, non pas de mettre en valeur un nouveau territoire agricole, mais de développer le réseau de routes dans une région mal contrôlée. B. Faist a montré que même les missions diplomatiques venues d'Égypte ou d'Amurru passaient par la route du Nord. Les importantes ressources en eau, les conditions climatiques relativement favorables et la population nombreuse facilitaient certainement le ravitaillement et l'accueil de ces prestigieuses délégations, mais on peut sans peine imaginer que pour des marchands ou des messagers la rapidité du voyage était déterminante et que dans ce cas ils aient préféré cette route plus courte.

L'existence d'une étape à Malhat/Hirbet ed-Deru n'est pas pleinement établie car l'occupation du Bronze récent doit être reconfirmée[58], mais même si ce n'était pas le cas, on peut parfaitement reconstituer un trajet direct par voie de terre entre Tell Šeih Hamad et Tell Qabr Abu al-ʿAtiq car des points d'eau s'y trouvaient. La voie fluviale (canal Sémiramis et canaux du bas Habur) offrait une excellente alternative, cette route était certes plus longue, mais per-

51 Caramelo 2009 ; Geyer & Monchambert 2015.
52 Geyer & Monchambert 2003, p. 220.
53 Montero Fenollós 2014.
54 Chaumont 1984, p. 65.
55 Kühne 2012, p. 563-565. Plus généralement sur la gestion de l'eau et le réseau de canaux du bas Habur, voir Kühne 2018.
56 Tenu 2015, p. 79 et p. 82, Tenu 2020a, p. 134-141.
57 Voir entre autres, Akkermans & Wiggermann 2015, Düring 2015, Schachner 2004, Puljiz & Qasim 2018, p. 104-105.
58 Kühne 2000, p. 275. Voir n. 30.

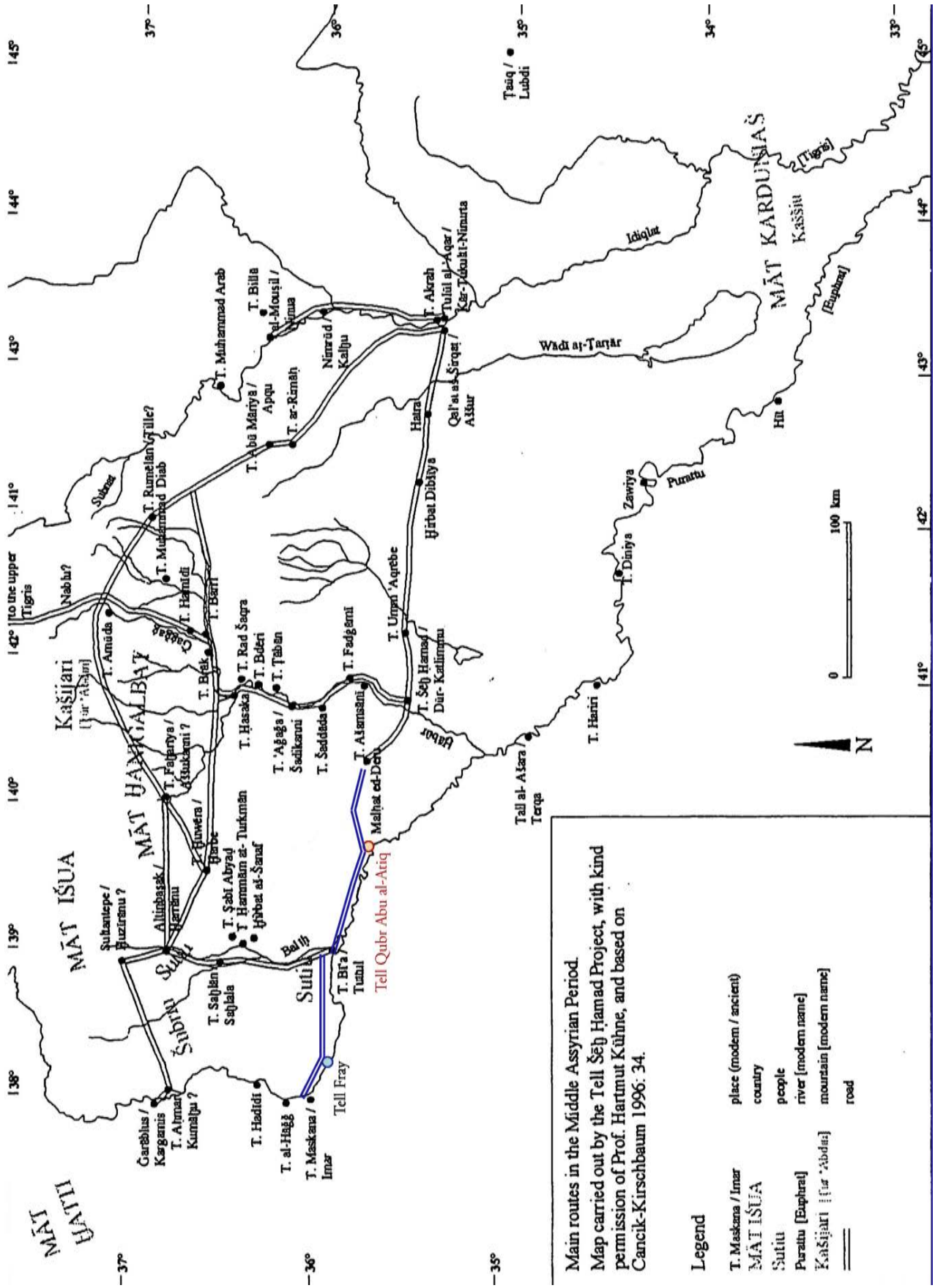

Fig. 7: Le tracé de la route de steppe entre Malhat ed-Deru et Emar (en bleu) (avec l'aimable autorisation de Betina Faist)

mettait le transport de marchandises plus lourdes. La route terrestre Emar – Tell Fray – Tuttul – Tell Qabr Abu al-ʿAtiq – Tell Šeih Hamad comptait environ 240 km. La distance Emar – Aššur (env. 480 km) pouvait donc être parcourue en 6 jours si l'on disposait d'un char et de relais pour les attelages et 22 jours à pied (**fig. 7**).

Finalement le site de Tell Qabr Abu al-ʿAtiq fut détruit après 1226 av. J.-C. Rien ne permet pour l'instant de connaître les circonstances de cet événement et rien n'indique qu'il faille tenir les Hittites pour responsables. Les relations entretenues par ces deux puissances soulèvent encore de très nombreuses difficultés d'interprétation. Il ne fait cependant guère de doute que le règne de Tukultī-Ninurta I[er] a été marqué par de nombreux affrontements, mais la chronologie et les différentes étapes de ce conflit sont toujours l'objet de débats[59], même si un certain consensus concerne la normalisation des relations entre les deux cours à la fin du règne de Tukultī-Ninurta Ier[60]. La situation avait cependant été extrêmement tendue et la guerre ouvertement déclarée ainsi qu'en témoignent, outre la bataille de Nihriya, l'embargo imposé par Tudhaliya IV au roi d'Amurru Šaušgamuwa[61] ainsi que l'édit du roi qui exemptait Ugarit de ses obligations militaires en échange de 50 mines d'or « tant que durerait la guerre d'Aššur »[62].

Quelles qu'aient réellement été les relations assyro-hittites au moment des campagnes assyriennes contre la Babylonie, il ne nous semble pas exclu que le développement de la politique sur le moyen Euphrate ait eu notamment comme but de promouvoir une nouvelle route commerciale passant au sud de la sphère hittite.

59 Voir par exemple Freu 2003, Cancik-Kirschbaum 2008a, Yamada 2011.

60 Freu 2003, p. 115 et Cancik-Kirschbaum 2008a, p. 217. Voir aussi sur la coopération entre les Assyriens et Karkemiš, Akkermans & Wiggermann 2015, p. 120-121.

61 Beckman 1996, p. 101.

62 Beckman 1996, p. 168.

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From Mari to Yakaltum: a route westwards according to the royal archives of Mari *

in memory of Pierre Villard
without whom this study would not have existed

Dominique Charpin**

An ancient historian often studies the itineraries from narrative sources: we can cite Xenophon's Anabasis, where the author describes the expedition of Cyrus the Younger against his brother Artaxerxes II and the retreat of the Ten Thousand in 401 BC. The assyriologist is then led, with the help of cuneiform sources, to comment on the description of the routes followed, which sometimes provoke his astonishment (Joannès 1995). The case that will be examined in this contribution is in a very different methodological situation: indeed, no text describes the route followed by Zimri-Lim and his troops when they went from Mari to the kingdom of Aleppo in the autumn of 1765 BC: this military campaign is only documented by archival texts. The historian must first patiently put in order the pieces of a puzzle of which he does not possess all the elements, before providing a geographical commentary on the data gathered. In what follows we will consider the available sources and the methods to be applied to them, then we will examine the fixed points of the stages of a trip that the textual data makes possible to determine, and finally we will attempt to reconstruct the route that was followed.

1. Reconstruction of itineraries: sources and methods

For an assyriologist, the reconstruction of routes in the Ancient Near East requires methods adapted to the different types of sources at his disposal;[1] the focus here will be on the archives of the Old Babylonian period, in particular those discovered in the palace of Mari.[2]

1.1 Background

The documents of the Old Babylonian period have some general characteristics that need to be briefly recalled.

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While I was putting the finishing touches to this study, the news arrived that Pierre Villard had left us. It seemed appropriate to dedicate this contribution to his memory, not without emotion; I will have the opportunity to pay him a longer tribute in the next issue of the *AfO* journal.

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1 A colloquium was organised by M. Fales in Udine on the topic of itineraries in 2004: see Fales 2006, with contributions by M. Porter, M. P. Streck, M. Forlanini and D. Sevalliè.

2 The main study on routes and itineraries documented by Mari texts is Joannès 1996, but it does not include methodological considerations; it should also be noted that it is now more than a quarter of a century old and that the progress of our knowledge since then has been significant. For more recent indications, see Ziegler & Langlois 2016 (cited below as MTT 1/1) and Ziegler 2022 (below MTT 2/1); note that the "HIGEOMES" tab of the ARCHIBAB database allows for a continuous update of the data (currently limited to Upper Mesopotamia and to the region east of the Tigris).

These archival texts are of a varied nature: letters, legal acts and accounting documents. Their number is very important, since more than 35,000 texts have been published in full since 1882.[3] It should also be pointed out that the flow of publications continues to be very abundant: for the last decade, an average of 320 new texts have been published each year.[4] Within this group, the archives found in the palace of Mari form a considerable group:[5] 9,541 texts have been published in full.[6] For the present investigation, we have to use two very different types of documents, but which provide complementary information: bookkeeping documents and letters. The former have the disadvantage of being very terse; on the other hand, they have the considerable advantage of being dated, or, when the date has disappeared, datable. The letters, on the other hand, did not include a date, with few exceptions; however, they have the advantage of being much more explicit. As the methodological problems vary greatly according to the type of text, we will examine them in turn.

1.1.1 Reconstruction of itineraries from accounting documents

For the Old Babylonian period, the most privileged case where non-epistolary documents provide an itinerary is the well-known "Urbana-Yale" itinerary:[7] Three tablets give the stages of a journey from Larsa to Emar (or Imar) and back. The Mari archives do not contain any texts of this nature, but nevertheless accounting documents make it possible to reconstruct routes. There are two possible scenarios. For some trips, only primary documents are available: small notes where the scribe recorded an expenditure or the receipt of goods, noting the day and the place where the transaction was made. In other cases, the study relies on summary documents that allow the reconstruction of an itinerary, sometimes by combining their data with that of the primary documents that have survived alongside.

1.1.1.1 Itineraries reconstructed from primary documents

By arranging accounting documents in chronological sequence, it is possible in some cases to reconstruct itineraries: their temporal succession reflects the spatial progression. For such an operation to be possible, a prerequisite is that the sequence of months and years is known. This may seem obvious today, but the chronology of Zimri-Lim's reign (1775–1761 BC) was not established so long ago—and there are still a number of points to be clarified.[8] Perhaps the most methodologically interesting example is the reconstruction of a military campaign of the Mari king Yahdun-Lim, whose reign preceded that of Zimri-Lim by around 25 year. It is based on a series of twenty-two small notes recording day-to-day oil and textiles expenditure as well as some gifts of textiles; the scribe specified that the operation was carried out "at the gate of GN". The chronological arrangement of these documents shows a journey through the Habur triangle, which has been interpreted as a military campaign (Charpin 1994).

1.1.1.2 Summary documents

Other journeys can be reconstructed from summary documents. The most obvious case is that of Zimri-Lim's route to a city called Hušla or Hušlan, located at the eastern end of the "Habur triangle", well beyond the borders of his kingdom.[9] The accounts of the "king's chest" (^{gi}PISAN LUGAL) are available for this trip :[10]

– a summary dated 30/vi/Zimri-Lim 8, i.e. ARM 7 117 + M.10544;[11]

– a summary dated 20/[vii]/Zimri-Lim [8], i.e. ARM 7 219 (partially reproduced in ARM 31 133).

These two summaries can be supplemented by a series of small expenditure texts, whose data are sometimes included in one of the two summaries.[12]

From this documentation, we can fix the stages of the king's move from Mari: 13/v at Mari; 14/v at Ṣuprum; 15/v at Terqa; 24/v at Saggaratum (M.12018 [= ARM 32 p. 342]). From this date onwards, no further location is assured, but the sequence of stages is known: 4/vi at Raṣum (ARM 7

3 Exactly 35,192 according to the ARCHIBAB database as of 28/3/2023 (i.e. an average of 250 texts per year); this figure does not include the many texts that have only been partially quoted or included in catalogues.

4 Average calculated from a total of 3,194 new texts published from 2011 to 2020.

5 For an overview, see Charpin 2008.

6 According to the ARCHIBAB database as of 28/3/2023.

7 See respectively Goetze 1953 (Urbana) and Hallo 1964 (Yale), to be completed by Goetze 1964. Much progress has been made since 1964, starting with the confirmation that Tuttul was located at Tell Bi'a, at the mouth of the Balih, which Hallo had refused to admit. See since then for the western part of the route Otto 2009 and Ziegler 2009; and for the eastern part of the route Ziegler 2002. See now in this volume the studies of Ziegler, Otto & Fink 2023 on the Urbana-Yale route and of Ziegler & Otto 2023 on the location of Ekallatum (see also *infra* note 73).

8 See Charpin & Ziegler 2003 (cited below as FM 5).

9 See MTT 1/1, p. 155; the data of the published texts are accessible via the ARCHIBAB site, tab 'HIGEOMES', then 'Info sites' and then 'Hušla' in the drop-down menu.

10 Since Villard 1992, see FM 5, p. 211; the study announced on p. 211 n. 380 has not yet been completed..

11 The join is still unpublished.

12 For example, ARM 7 119 (from 2/vii/Zimri-Lim 8) is repeated in ARM 7 219: 6-8.

115 and 116 [= ARM 32 p. 343]); 7-17/vi at Tadum; 18-19/vi at Ilan-ṣura (M.10532 [= ARM 32 p. 343-344]); 22/vi at Razama-of-Yussan (M.10543 [= ARM 32 p. 344]). And finally, from 24/vi to 3/vii in Hušla (M.10530 [= ARM 32 p. 345], on 1/vii).

The highlight of the journey seems to have been an offering by Zimri-Lim to the Kumme storm god on 2/vii (ARM 7,119 [= ARM 31,132]). However, the king of Mari did not go to Kumme in person: he had his gift carried from Hušla. The stages of the return journey are also known: on 5/vii at Ilan-ṣura, on 22/vii at Saggaratum (M.12450 [= ARM 32 p. 345-6]) and on 16/viii at Terqa (ARM 7 11).

This journey is described in later documents, which refer to it by the furthest place on the route: "When my lord resided in Hušlân"[13] or "When my lord returned from Hušlan"[14]. The nature of the trip has yet to be defined; it has been referred to as a "pilgrimage to Hušla" (Durand 1988 : 493) but it is quite possible that the main motivation was of a diplomatic-military nature.

1.1.1.3 Conclusion

The main advantage of this type of source is that it provides historians not only with a sequence of place names, but also with time indications. However, these are not always easy to interpret: some stages last for a long time, without us knowing why, or what took place on that occasion.

1.1.2 Itineraries in the correspondence

The advantage of letters is that they give details. However, a distinction must be made between projects or instructions on the one hand, and descriptions of routes that were actually followed on the other.[15] In both cases, the word *gerrum* seems to have been used to describe a "route" in Akkadian, regardless of its nature,[16] the word *harrânum* concretely describing the "path" or "road" taken.[17]

1.1.2.1 Itineraries to be followed

The first category can be described as prescriptive itineraries. Two examples are provided by the letters of Samsi-Addu published in the first ARM volume. In one we find the description of a route between Šubat-Enlil and Mari (ARM 1 26):

> "Say to Yasmah-Addu: Thus says Samsi-Addu, your father. I will leave for Mari, the day after the 20th of the month of Mamîtum (v*), (thus) the day after the day I sent you my present tablet, I will leave Šubat-Enlil for Mari. My stages (*nubattum*): from Šubat-Enlil to Tilla; from Tilla to Ašihum; from Ašihum to Iyatu; from Iyatu to Lakušir; from Lakušir to Saggaratum."

The starting point and the end point are known (Durand 2004 : 135 n. 148), on the contrary to the stages[18] that are rarely mentioned elsewhere, notably Iyatu and Lakušir.[19] The context must be taken into account: the letter clearly indicates the desire to reach Mari as quickly as

13 ARM 27 131 : (6) *i-nu-ma be-lí i-na hu-úš-la-an*^{ki} *úš-*[*b*]*u*.

14 ARM 27 131 : (13) *i-nu-ma be-lí iš-tu hu-úš-la-an*^{ki} (14) *i-tu-ra-am*.

15 I owe the distinction between "prescriptive route" and "descriptive route" to a paper by E. Cancik-Kirschbaum and N. Ziegler in our work on historical geography. I note that it more or less overlaps with the distinction made by modern travel assistance software between "route" and "track": cf. https://support.garmin.com/fr-FR/?faq=v0rJAHy2hq3prHjRlxdRw5, which states: "Un itinéraire est une suite de trajets calculés entre une série de points entrés dans le GPS dans l'ordre que vous avez défini" and "Un tracé est une suite de points enregistrée lors de votre déplacement, vous permettant de suivre un trajet précédemment accompli" ("A route is a series of paths calculated between a series of points entered into the GPS in the order you have defined" and "A track is a series of points recorded during your journey, allowing you to follow a previously completed route").

16 This is the word used in A.1053 (prescriptive itinerary): it is found in the opening and closing of the enumeration of the stages l. 5 (*ge-er-ru*), 20 (*ge-er-ra-am*) and 22 (*ge-er-ru-um*). It is found in M.5431 (descriptive route): [18] and 31 in the form KASKAL.A. The parallelism between the phonetic and ideographic spellings confirms the conclusion of M. Stol who proposed the equation KASKAL.A = *gerrum* in Stol 1978: 218a. The word *gerrum* also refers to "expedition", whether commercial, diplomatic or military in nature.

17 The clearest example of the difference between *gerrum* and *harrânum* could be given by the unpublished letter A.430 (24) *ṣa-bu-um* LÚ ELAM.MA.MEŠ (25) *iš-tu ku-za-ba-at*^{ki} *a-di ka-ak-ku-la-tim*^{ki} *i-na ge-er-ri-im* (26) *ša* LÚ.KÚR *il-li-ku i-na i-mi-ti* KASKAL *ù šu-mé-lim* (27) 1 *li-im ša-la-am-tum ša mi-tu i-ba-aš-ši-i* "The Elamite army went from Kuzubat to Kakkulatum. On the route (*gerrum*) that the enemy followed, on the right and on the left of the road (KASKAL = *harrânum*), there were a thousand people who had died" (quote in Guichard 1999: 46 n. 126). The word *gerrum* (l. 25) refers to the route from Kuzubat to Kakkulatum, while KASKAL (l. 26) actually denotes the road, to the left and to the right of which lay the corpses of the dead enemies: it is clear that the scribe did not use the ideogram KASKAL to write down the word *gerrum*, which he had already written phonetically before: KASKAL must therefore surely be read here as *harrânum*. This seems to confirm the proposal of M. Stol quoted above, for whom KASKAL.A = *gerrum* and KASKAL = *harrânum*, but see below note 20 about ARM 1 85+.

To these two Akkadian terms must be added a third, *daraggum*, attested in A.510:3' (Charpin 2021a: 566).

18 The term used in Akkadian, *nubattum*, indicates the place where one spends the night: the stages here are therefore implicitly spaced by one day. It therefore took five days to travel from Šubat-Enlil to Saggaratum, where the Euphrates valley was joined; the continuation of the route downstream from Saggaratum did not need to be specified.

19 J.-M. Durand has proposed that Iyatu could be located at Tall Umm Aqrubba (Durand 2009: 54).

possible: it is therefore probably a question of stations on a road parallel to the Habur but which cuts across the steppe.

The letter ARM 1 7 is also well known, in which Samsi-Addu indicates the route to be followed by a convoy loaded with cedars to be brought from Saggaratum to Šubat-Enlil. To the same category belongs the letter of Samsi-Addu to Yasmah-Addu in which he describes the three possible routes from the Middle Euphrates to Qaṭna: the "high" (*elîtum*), "middle" (*qablîtum*) or "low" (*šaplîtum*) route.[20] This type of text obviously poses a problem: we do not necessarily know what was really feasible or what has been done. In ARM I 85+ the availability of water resources between the Euphrates valley and Qaṭna was a precondition for the trip given the number of soldiers who had to make the journey. A more recently published example is provided by the letter of Yarim-Addu to Yasmah-Addu A.1053: the sender, a nomadic chief, indicates to the king of Mari the route he should follow along the Habur upstream of Qaṭṭunan, listing eight stages ending in Zalluhan (Charpin 2009). We do not know whether Yasmah-Addu followed the route described by Yarim-Addu.

The prescriptive itinerary that appears in another letter of Samsi-Addu discovered in Shemshara (Joannès & Ziegler 1995) can be reminded. The great king describes a route in eastern Tigris region, which starts in Šušarra, passes by Zaslum, then Šegibbu, Zikum, Ura'u, Lutpiš, until the country of Haburatum (ShA 1 1 [SH 809]).

In some cases, the travel plans are described with a precise calendar. Habdu-Malik, *šukkallum*-vizier of Zimri-Lim, summarised to the king his visit to the main capitals of the Jebel Sindjar region:[21]

> "On the 27th I sent this tablet from Kurda. On the 28th, I will stay in Andarig. On the 29th, if I have been able to meet (Atamrum), I will leave for Karana. On the 30th I shall return from Karana and enter Andarig. On the 1st of the month of Malkânum, I will leave Andarig. On the 2nd, or the 3rd, I will set out from Kurda to my lord."

Texts like this inform us about the minimum time it took to go from one place to another: we see here that in one day one could travel between two of the three cities mentioned (Kurda, Andarig and Karana). This allows us to make proposals for the location of these three capitals, which have still not been situated with any certainty.[22] Another example is the letter from Sumu-hadu in the Euphrates valley setting out the stages of the convoy to take Zimri-Lim's new wife to the capital:[23]

> "She will stay one day in Dur-Yahdun-Lim; the next day in Zibnatum; the third day in Terqa; the fourth day she will arrive at Ṣuprum. She will spend the night in Ṣuprum, then get up in order to enter Mari before the fifth day."

1.1.2.2 Itineraries effectively followed

Descriptive itineraries on the other hand are less numerous and, above all, generally much more fragmentary. A good example is given by a letter from Zakira-Hammu, governor of Qaṭṭunan, to the king of Mari: [24]

> "Yassi-Dagan came out safely from Šubat-Enlil, and then arrived in Ṭabatum. Starting from Ṭabatum, he arrived at the wide wadi (*rapšum*), which (is) upstream of Tehran. Then he left the broad wadi (*rapšum*), and, hiding himself, went by the steppe to Andarig."

Such a sequence makes it possible to understand that the topographical feature *rapšum* was located in the Habur valley at the starting point of a track allowing to pass south of the Jebel Sinjar to Andarig.[25]

Of course, the routes differed depending on whether it was a messenger travelling, merchants in a caravan, nomads with their flocks, an army heavily equipped or not, etc. There is a very interesting case concerning the journey of messengers from Ešnunna to Allahad, south of Jebel Sinjar:[26]

> "[The route of the messen]gers [of the Ya]minites [between Ešnunna] and Karana, [he made it known to me] [thus: (from Ešnunna) to Dur]-Sin; [from Dur]-Sin to Arrapha; [from Ar]rapha [to Ka]wa[lhum]; [from K]awalh[um] to Razama of the Yamutbal; from Razama of the Yamutbal to Karana; from Karana to Allahad. To the river bank: this is their route."

20 This is ARM 1 85+. See Durand 1987: 159-167 "Les trois routes de l'Euphrate à Qaṭna à travers le désert" and since Charpin 2010. I have quoted in this article (p. 241) an unpublished document which is the draft of Yasmah-Addu's reply to his father (correct the reference to M.11301 [= reference to ARM 33 209] to M.11031); this unpublished document is to be published by N. Ziegler. Note in ARM 1 85+ the use of KASKAL (l. 32, 33, 34, 40, 44, 45, 48) for 'road' in the sense of 'itinerary', which tempers what has been written above note 17.

21 ARM 26/2 392 : 61-68.

22 See review in MTT 1/1, pp. 25-26 (Andarig), pp. 180-181 (Karana) and pp. 196-197 (Kurda).

23 ARM 33 145 : 23-31.

24 ARM 27 65: 5-11.

25 For the interpretation of *rapšum* as "the wide wadi", cf. Durand 2004: 132-133. See since Ziegler 2011: 10 for an identification of this *rapšum* with the wadi Abu Fighe (and see map p. 16).

26 M.5431: 18-31 (Joannès 1992: 185-187). Note that the scribe uses l. 31 the ideogram KASKAL.A to describe the route.

1.1.2.3 Traffic problems

Some particularly problematic routes required the accompaniment of someone who knew the terrain well. Thus, in a letter from Samsi-Addu to Yasmah-Addu, we find this indication: "There are roads (*gerrum*) from Mari to Yahpila: La'um (knows them)".[27] This meant going from the capital city on the Middle Euphrates to the Tigris region: several routes were possible and the king of Mari had to rely on La'um, who had already followed them.

Moreover, certain routes were only feasible in the appropriate seasons. Thus, Sammetar advised Zimri-Lim not to make the new queen of Mari and the women of her entourage travel from Aleppo in summer: the diviner Asqudum, who was leading the expedition, had to wait until autumn before setting off.[28] Similarly, Sumu-hadu told the king that the troop that was to go to Qaṭna, given the season, could only travel by night:[29] the roads leading from the Middle Euphrates to the region of present-day Homs crossed the "Syrian desert".

1.1.3 Texts that are not really itineraries

A final category of documents should be mentioned here: texts describing the terroirs, whether they are administrative documents or pieces of correspondence. One can thus find in a letter the enumeration of localities along a watercourse: this is the case of ARM 33 120, which names "all the localities that feed into the Išim-Yahdun-Lim canal, (i.e.) Samanum, Terqa, Raqayum, Kiritum and Kulhitum".[30] In cases like this, the only question that remains to determine a possible route is on which bank (right or left) each locality was situated.[31] Such a text is important for the location of the place names it lists, but it is not a true route.

A more subtle example is provided by FM 16 53, where fields are measured "from the temple of Amu of Hubšalum to Dunnum", listing successively Ṣuprum, Nagiyum, Ṣubatum, [Iddisum], [Tizrah], [Mari], Šakka and Urah.[32] The analogous text FM 16 57 gives the sequence Ara'itum, Nu'abum, Hutnum, [Ṣuprum], Nagum, Ṣubatum, Iddisum, Tizrah, Mari, Šakka, Urah. In such cases, one cannot speak of routes *stricto sensu*, but the writing of such texts implies that the surveyors successively measured the fields of these localities located on the left bank of the Euphrates upstream from Mari, and then downstream from it. The minimal deduction is that the scribe collected the available data in a geographical order: in this case one could speak of a mental itinerary.

2. Zimri-Lim's journey to Yamhad

These general considerations on sources and methods allow us to address a particular case, which dates from the end of the ninth year of the king of Mari Zimri-Lim: he left his capital for a journey that was to last five months and take him to the Mediterranean coast, to Ugarit. The route he followed has been known for several decades: it was reconstructed by P. Villard, first in his contribution to ARM 23 in 1984,[33] and then in an article in *Ugarit Forschungen* in 1986.[34]

2.1 Documentation

At the time, the documentation consisted mainly of accounting texts.[35] They can be grouped into three categories:[36]

– Type 1: these are small accounts, drawn up in close chronological proximity to the recorded transaction; they are inventories, expenditures of silver or tin, and exchanges of gifts with the kings of the regions crossed. An example is ARM 25 135 (= ARM 32, p. 359 [M.11215]): on this small tablet is recorded the expenditure of a silver weapon partially plated with gold, a gift for Yawi-El, king of Talhayum, made in Zilhan, on the 19th of month xii in year 9 of Zimri-Lim.

– Type 2: these are summaries drawn up by the service of Dariš-libur. He was most probably the chief barber of Zimri-Lim,[37] responsible for the king's wardrobe; these

27 ARM 1 35: (15) *ge-er-ru iš-tu ma-ri*^{ki} (16) *a-na ia-ah-pí-la*^{ki} *i-ba-aš-šu-ú* (17)^{l} *la-ú-um i-de*. For the location of Yahpila = Yahappi-Ila, cf. Ziegler 2002: 245.

28 ARM 33 143.

29 ARM 33 150.

30 The passage, already quoted by J.-M. Durand (Durand 1990: 124), was taken into account by H. Reculeau in FM 16 (Reculeau 2018: 179 n. 1386).

31 For a problem of this kind, see the case of the cities downstream of Mari, in the province of Suhum (Charpin 1997 and Charpin & Millet Albà 2009).

32 The restorations are based on the parallel with FM 16 57: 14-16.

33 See Villard 1984: 457-475 (analysis) and 507-522 (texts n^{os} 535-549).

34 See Villard 1986. This article integrated a text published by Ph. Talon in ARM 24 in 1985 and especially the very important data published by H. Limet in ARM 25 in 1986.

35 P. Villard was also aware of the partial nature of his documentation: "Il est vraisemblable qu'un certain nombre de lettres se rapportent au dossier étudié ici" (Villard 1986: 387 n. 7).

36 I follow here Villard 1986: 388, but change the order of presentation of the categories so as to follow the chronological order of their writing.

37 See Charpin 2015: 8. The inventories of *bît gallâbi* published by I. Arkhipov in ARM 32 should be the subject of a special study by him.

texts seem to have been written in Ugarit, the final point of the journey to the West, and therefore cover the period from month xii/ZL 9 to month iii/ZL 10. In all these summaries, the date and place of the transaction (usually a gift made or received) are specified in each case, independently of the date of writing of the text itself. An example is the beginning of ARM 25 38+ARM 25 46 = ARM 32 p. 366-367 ([M.5291+M.11367]): a gold ring, weighing 1 mina 18 1/2 shekels, a gift from Aplahanda, king of Karkemiš; 18th of month i; to Yakaltum. The text itself dates from the 9th of month iii and was written in Ugarit.

– Type 3: we are dealing with summaries covering longer periods of time, which include some of the expenses of the trip to Yamhad, but also other operations (Villard 1984: 388).

In some cases, we have a Type 1 document and a record in a summary (Type 2 or 3) for the same gift, or several records of the same gift in different summaries.[38]

It can therefore be seen that this file does not provide a description of an itinerary: it is reconstructed by chronologically ordering the places mentioned for each of the transactions. The working hypothesis is that the gifts made by the king or offered to him during his travels were recorded as they were made or received. The accuracy of P. Villard's analysis of 1984 must be emphasised here, while at the same time H. Limet understood nothing of the context to which the texts he published belonged (Limet 1985).

Since 1986, the documentation has increased, in particular due to the addition of letters relating to this case. They have made it possible to better understand the nature of this trip: whereas P. Villard had emphasised the diplomatic and commercial nature of the journey,[39] it was in fact a military campaign by the king of Mari Zimri-Lim, intended to help the king of Aleppo Yarim-Lim to punish the king of Ugarit (Charpin 2021a). Moreover, our knowledge of historical geography has progressed, so that it is not useless to take stock again, limiting ourselves to the section of the route that goes from Terqa to Yakaltum and then Hakkulan.

ARM = ARCHIBAB T-ref.	**Date**[41]	**Nature of the recorded transaction**	**Location**
XXV 201 = www.archibab.fr/T11856	2-xii	Gold jewellery entrusted to a civil servant	Terqa
XXIV 197 = www.archibab.fr/T5077	8-xii	Reception of clothes "when the king went to Yamhad"	(Mari)
XXV 531 = www.archibab.fr/T11364	8-xii	Inventory of crockery, including table knives, accompanying the king on his journey to Aleppo	Saggaratum[42]
XXV 450 = www.archibab.fr/T11857	8-xii	Account of tin and silver in *tukkannnum*-bags given to different people, "when the king went to the Yamhad".	Saggaratum
XXV 135 = www.archibab.fr/T11858	19-xii	Spending of a gold-plated silver weapon for Yawi-Ila, king of Talhayum	Zilhan
XXV 121 = www.archibab.fr/T11859	20-xii	Ring received by the king and ring for Mennazi; expenses under the responsibility of Dariš-libur	Zilhan
XXV 48+ = XXXI 161 = www.archibab.fr/T5691	22-xii	Jewels and GAL-vases, sent by Yawi-Ila, king of Talhayum, and Haya-Sumu (l. 1-8)	Zilhan
XXIII 535 = www.archibab.fr/T5080	29-xii	Ring received by the king (i 1-7)	Zilhan
XXV 118 = www.archibab.fr/T11884	29-xii	Ring received by the king (l. 1-5)	Zilhan

2.2 Fixed points on the route

From the documents presented above, the following steps can be reconstructed:[40]

38 This phenomenon has been studied more extensively by Guichard 2005: 67-89.

39 He was followed by J. Sasson (Sasson 1984 and 2008).

40 This table is based on that of Villard 1986: 389, with additions and updates; we have stopped at the stage of the temple of Dagan of Hakkulan. P. Villard's references are followed by the T-number of ARCHIBAB, as most of the texts have been republished since 1986 (note that P. Villard had access to the transcriptions of the texts of ARM 25 collated by J.-M. Durand and completed by numerous joins, which were subsequently republished in ARM 31 and 32). ARM 23 543, republished as FM 4 56 (www.archibab.fr/T18802), which has nothing to do with the journey to Yamhad, has been excluded from the table; N. Ziegler has shown that this text in fact dates from 3/i/Zimri-Lim 10 (Ziegler 1999: 231), and this solves the problem raised by P. Villard (Villard 1992: 203 n. 64).

41 The texts dated to month xii are from the end of Zimri-Lim year 9 and those of month i from the beginning of year 10.

42 Read l. 9 *i*-na* sa*-ga*-*[*ra-tim*^{ki}]; cf. Charpin 2021a: 539 n. 21.

ARM = ARCHIBAB T-ref.	Date	Nature of the recorded transaction	Location
XXIII 535 = www.archibab.fr/T5080	10-i	Two rings and a cloth for Haya-Sumu, king of Ilan-ṣura (i 8-17)	Qardahat
XXV 153 = www.archibab.fr/T11885	10-i	Ring(s) for Haya-Sumu, king of Ilan-ṣura (l. 2'-5')	Qarhadat
XXV 118 = www.archibab.fr/T11884	10-i	Rings for Haya-Sumu, king of Ilan-ṣura (l. 7-14)	Qarhadat
XXV 48+ = XXXI 161 = www.archibab.fr/T5691	13-i	GAL-vase sent by Šennam, king of Ursum (l. 9-12)	Qardahat
XXV 38+ = www.archibab.fr/T11873	18-i	Vase sent by Aplahanda, king of Karkemiš (l. 1-6)	Yakaltum
XXV 48+= XXXI 161 = www.archibab.fr/T5691	(i)	Vase sent by General Samsi-Addu to Tuttul, and taken out (ZI.GA) for Hammu-rabi's wife, in Yabuhum (l. 13-15)	
XXV 48+ = XXXI 161 = www.archibab.fr/T5691	21-i	Vase sent by the Elders of Tuttul (l. 16-17)	
XXIII 537 = www.archibab.fr/T11900	24-i	Jewels for Yarim-Lim, king of Yamhad "at the meeting" (l. 1-7)	Dagan Temple of Hakkulan
M.11308 = www.archibab.fr/T11899	24-i	Jewels for Yarim-Lim, king of Yamhad (l. 1'-7')	Dagan Temple of Hakkulan
XXV 153 = www.archibab.fr/T11885	24-i	Jewels for Yarim-Lim, king of Yamhad (l. 6'-10')	
XXIII 535 = www.archibab.fr/T5080	26-i	Jewellery, cloth and bow for Yarim-Lim, king of Yamhad (i 18 to ii 6); jewellery for Gašera (ii 7-15)	Dagan Temple of Hakkulan
XXV 118 = www.archibab.fr/T11884	26-i	Jewellery, cloth and bow for Yarim-Lim (l. 7-24) and Gašera (l. 25-31)	Dagan Temple of Hakkulan

The stages of the journey documented by texts are thus: Terqa, Saggaratum, Zilhan, Qardahat (= Qirdahat) and Yakaltum; the Euphrates was crossed at Yakaltum and the next stage was the temple of Dagan of Hakkulan, where the "meeting" (*nanmurtum*) between the kings of Mari and Aleppo took place.

2.2.1 From Mari to Qirdahat (2/xii to 13/i)

Much progress has been made on the location of ancient toponyms along the Habur, in the framework of the "Procope" cooperation, which led to the publication of BBVO 20, otherwise known as *Entre les fleuves – I*, on the one hand, and to the publication in *RA* 105 of the work of the Franco-Japanese cooperation known as "SAKURA", organised by Nele Ziegler and Shigeo Yamada around the discoveries of the Tell Taban excavations. The situation is as follows:[43]

– **Terqa** = Tell Ashara.

– **Saggaratum**: for a long time, this city was located at Tell Abu Ha'iṭ, but J.-M. Durand has very convincingly proposed a location of Saggaratum on the Euphrates, at the confluence with the Habur, perhaps at or near Buseira, the Roman Circesium (Durand 2009: 50).

– **Zilhan**: the point has been made by N. Ziegler (Ziegler 2011: 9):[44]

> "I would tend to locate Zilhan really close to Ṭâbatum (Tell Taban), but on the right bank [of the Habur]; however, there is no tell identified for the Middle Bronze Age in this area, except possibly Tell Fleti, which seems to me too far downstream. Since Zilhan is no longer attested after this period, it is possible that the site had only a short-lived occupation and that this explains why its location was not identified during the surveys."

– **Qirdahat**: it is one of the gains of the programme that preceded HIGEOMES to have proposed a new location for Qirdahat/Qardahat. While for a long time this city was located on the tell of Chagar Bazar or nearby, the itinerary of the letter A.1053 showed that it was located on the very course of the Habur (Charpin 2009); a location at Hassaka or in the immediate vicinity of this city is therefore very likely. Indeed, to bring together people from different points of the Habur triangle to reach the Euphrates bend, the site of Hassaka is the best possible choice: the city is still today a road junction in northeast Syria.

There are thus three stages on the Habur: Saggaratum near Buseira, Zilhan near Tell Taban and Qirdahat near Hassaka. A later letter alludes to the "ascent" from Zimri-Lim to Zilhan, followed by a stopover at Qirdahat:[45]

> "When my lord had gone up to Zilhan, then his son Ṣidqan had witnessed what was said in the presence of my lord: Tamarzi, having heard of your coming to Qardahat, had sent a message to the Elders of Urkiš saying, 'Just as

43 In any case, the very useful volume MTT 1/1 (Ziegler & Langlois 2016), to which I will only occasionally refer, can be consulted.

44 "J'aurais tendance à localiser Zilhân vraiment très près de Ṭâbatum (Tell Taban), mais sur la rive droite [du Habur] ; cependant, il n'y a pas de tell identifié pour l'époque du Bronze Moyen dans cette région, sauf éventuellement Tell Fleti, qui me semble trop en aval. Puisque Zilhân n'est plus attestée après cette époque, il est possible que le site n'ait connu qu'une occupation éphémère et que cela explique qu'on n'ait pas identifié son emplacement lors des prospections."

45 A.2567 (= LAPO 16 440 = www.archibab.fr/T426), edited in Charpin 1993a: 178-181.

Samsi-Addu had served you as a guide, let Zimri-Lim be a guide to you.'"[46]

In fact, Zimri-Lim was to lead the armies of his vassals gathered at Qirdahat to the Mediterranean.

2.2.2 From Qirdahat to Yakaltum (from 13/i to 18/i)

On 18/i, a gift from King Aplahanda of Karkemiš was recorded at Yakaltum. Initially, P. Villard had wanted to locate Yakaltum on the Balih (Villard 1986: 397). But since 1986, two new elements have to be taken into account: first, Walter Mayer showed in 1990 that the ancient name of Munbaqa was Ekalte (Mayer 1990). This site is located on the left bank of the Euphrates, 25 km upstream from Maskana/Imar. Subsequently, Wu Yuhong linked Ekalte to the toponym Yakaltum attested by the Mari sources.[47] Thus, the Yakaltum stage is to be moved from the Balih to the Euphrates.[48] The letter ARM 4 6 explicitly indicates that this site was a crossing point of the Euphrates. Samsi-Addu wrote there to Yasmah-Addu:[49]

"So write to Yasub El and ask him to provide boats at Yakaltum or at another place on the banks of the Euphrates, so that as soon as they arrive, they may serve as a ferry. Let him (= Yašub-El) not refuse them!"

A letter from Himdi-Addu confirms that Yakaltum was an important crossing point of the Euphrates.[50] It is therefore very likely that Zimri-Lim and the troops accompanying him crossed the river. This formed the border of the kingdom of Yamhad: in fact, a meeting between the kings of Mari and Aleppo took place very soon after the Yakaltum stage, in the temple of Dagan of Hakkulan, whose precise location remains unknown, but was obviously situated west of the Euphrates.[51]

3. Which route was followed?

The first point to note is that Zimri-Lim did not follow the usual route from Mari to Aleppo. There are examples of such a journey, such as that of Asqudum who carried a musical instrument to the capital of Yamhad. He travelled by boat from Tilla-Zibim to Lasqum, at the narrowing of the Euphrates valley called Hanuqa in Arabic, 60 km upstream from Deir ez-Zor (near Halabiya); then, using porters, he reached Tuttul (near present-day Raqqa), then Imar (Maskana) and finally Aleppo.[52] Another example is the mission of Warad-ilišu to transport women to Aleppo:[53] the route followed was along the Euphrates River on the right bank, passing through Terqa, Dur-Yahdun-Lim, then Abattum and Imar. In no case did the road from Mari to Aleppo make a detour to the north like the route of Zimri-Lim at the end of his ninth year of reign.[54] This route was imposed on the king of Mari for political reasons: Zimri-Lim had to fetch the troops of his vassals from the Habur triangle and lead them to the kingdom of Yamhad. The first part of the itinerary, which no longer poses a problem, should be distinguished from the second, which is more difficult to determine.

3.1 From Mari to Qirdahat

After leaving Mari, Zimri-Lim was in Terqa on 2/xii. Six days later, we find him in Saggaratum on 8/xii. It was then that the count (*piqittum*) of the Mari army was carried out, as shown by the unpublished tablet M.5696.[55]

Zimri-Lim went up the Habur and stayed at Zilhan for ten days, from the 19th to the 29th. The question that can be asked today is whether Zimri-Lim was followed by the

46 I do not share J.-M. Durand's judgement: "Un 1er point est que le voyage de Zimrî-Lîm à Zilhân n'est pas une allusion au séjour que le roi y fit du 19 au 29/xii/ZL 8' (au début du voyage qui devait le mener jusqu'à Ugarit), allant quelques jours après Zilhân, à Qa/irdahat, du 10 au 13/i/ZL 9' (P. V., UF 18, p. 389). 10 ans après la chute du royaume de Haute-Mésopotamie, on ne comprendrait pas cette allusion à sa fidélité envers Samsî-Addu" (Durand 1997: 637).

47 Wu Yuhong 1992. This note is to be completed by Charpin 1993b and Villard 1993.

48 It is very surprising that in his 2016 study, B. Lafont located Yakaltum on Map 1 on the Balih, where the site had been placed by P. Villard in 1986, ignoring all the later bibliography (Lafont 2016). See henceforth the references and bibliography in MTT 1/1, p. 95-96 "Ekallatum (2)".

49 ARM 4 6 (= LAPO 17 706 = www.archibab.fr/T8830): (20) *i-na-an-*[*na*] *a-*[*n*]*a ia-šu-ub-*DINGIR (20) [*š*]*u-pu-u*[*r*]*-ma* (21) ^{giš}MÁ.HI.A [*i-na*] *ia-k*[*a-a*]*l-tim*^{ki} (22) *ù-*[*lu*] *a*$^{!}$*-*[*šar-ša-ni*] (23) *ša a-ah* ^{iti}UD.KIB.NUN.NA^{ki} (24) *li-iš-ku*^{o}*-ma* (25) *ki-ma ma-ah-ru-u*[*m*]*-ma* (26) *ša i-il-la-*[*ka-nim*] (27) *i-ib-ba-ra-n*[*im*$^{!}$] (28) *la i-ka-*[*al-ši-na-ti*].

50 Ziegler 2009: 191-192 and notes 49 and 52, with a quotation of the unpublished letter M.6147+M.7464.

51 MTT 1/1, pp. 109-110, should be modified on this point according to Charpin 2021a: 548. A. Otto (2006: 265) proposed to localise the Dagan temple of Hakkulan at the shore of the Jabbul Lake, where the famous basalt head of a male god had been found already in the 1920ies.

52 Durand 1988: 119-138, especially 124-127 "C. À propos de l'itinéraire de Mari à Imar".

53 Durand 2002: 29-33 and Ziegler 2007: 172-174.

54 We must forget here what P. Villard wrote. Commenting on ARM 14 87, he erroneously identified Tilla-Zibim and Tilla and concluded that this "confirmerait que l'une des routes habituelles du Yamhad à Mari passait par l'Ida-maraṣ" (Villard 1986: 409 n. 51).

55 For this text, see Charpin 2021a: 545.

Mari army along the Habur: it seems more likely to me that his soldiers—at least a significant part of them—were sent quickly to Azara;[56] it would be this army that Yanṣi-bum would have led and it is because of the announcement of his arrival that the king of Azara would have surrendered to the king of Aleppo Yarim-Lim, against whom he had rebelled.[57]

Zimri-Lim left Zilhan and stopped at Qirdahat from the 10th to the 13th. It is obviously in Qirdahat that Zimri-Lim met Haya-Sumu, to whom the king of Mari offered several jewels. We can therefore think that Zimri-Lim then took the lead of the army that his vassals of Ida-Maraṣ had gathered.[58] In fact, Zimri-Lim's pace seems to have accelerated noticeably afterwards.

3.2 From Qirdahat to Yakaltum

Zimri-Lim left Qirdahat on 13/i and stayed in Yakaltum from 19/i. The road from Hassaka to Munbaqa is 240 km as the crow flies: if the distance is covered in seven days (from 13/i to 19/i), that makes stages of 34 km per day, which is a lot but not impossible (Di Filippo 2016: 461-467). We must try to understand why no text names an intermediate station during this seven-day period.[59]

3.2.1 Intermediate steps ?

Now that Qirdahat is located in Hassaka or in the immediate vicinity, it seems very likely that the road to Yakaltum bypassed the Jebel Abd-El Aziz from the north.

Even if our documentation is not absolutely complete, the rest of the dossier shows that all the stages of the last part of the route, between the Euphrates and Ugarit, are documented. The very fact that no stopover is mentioned between Qirdahat and Yakaltum should therefore not be due to chance and should have a meaning: if no toponym is mentioned, it is because there was no king on the way to whom to give a present or from whom to receive one. What are the foreseeable stops on this route? At least one name stands out, at the point where the road from Qirdahat to Yakaltum crossed the Balih. If Ahuna is located at Tall as-Seman,[60] it seems clear that Zimri-Lim's route must have passed through this town: it is the chance of receiving or sending gifts that explains why no text was written there. The city of Ahuna is sometimes explicitly mentioned as a meeting point at the place where the Balih is crossed, as in the letter from Habduma-Dagan to Zimri-Lim ARM 33 80.[61] Moreover, J.-M. Durand proposes to see in the toponym Ahuna a derivative of the root HN', which etymologically means "the place where one rests, the halt";[62] he even sees in it the Yaminite equivalent of the term Mahanum used by the Sim'alites.[63] It should be noted that the general Yanṣibum was stationed in Ahuna since the victory over Azara.[64]

3.2.2 A stopover in Tuttul?

The reconstruction of the route is complicated by the mention of Tuttul in ARM 25 48+ (= ARM 31 161 [T5691]):

> (13-15) "1 silver *lahtanum*-vase, weighing 1/2 mina, brought by Samsi-Addu, the general, to Tuttul; expense for Hammu-rabi's wife in Yabuhum";
> (16-17) "1 silver ox-horn vase, weighing 1/2 mina, [brought from the El]ders of Tuttul, on the 21st, in a *pirsum*-chest".

The problem is to reconcile a possible presence of Zimri-Lim on 18/i in Yakaltum, then on 21/i in Tuttul, knowing that his route continued towards Aleppo. This question has given rise to several hypotheses. According

56 P. Villard had noted: "On remarquera enfin que d'après la formulation d'ARMT XXV 450 : 5-6 (si-lá *ia-an-ti-in-*^{d}IM / *ša i-na* giš-má-tur-há), l'étain et l'argent confiés à Yantin-Addu durent prendre directement la voie de l'Euphrate pour rejoindre la région de Tuttul, alors que la plus grande partie de l'expédition fit le détour par l'Ida-Maraṣ." (Villard 1986: 203 n. 64).

57 For more details on military operations, see Charpin 2021a.

58 As shown in Itur-Asdu's letter A.2491+, cited in Charpin 2021a: 546 n. 59.

59 A similar situation concerns Atamrum's journey from Babylonia back to his capital, Andarig. His stops along the Euphrates are known, but no toponym is known for the road that connected Harradum (Khirbet ed-Diniye) on the Euphrates to Andarig at the southern foothills of Jebel Sinjar, cutting across the steppe for a distance of about 200 km. See Charpin 1997: 352-355 and Joannès 1996: 328. An escort had accompanied Atamrum: its return is reported by Buqaqum in ARM 26/2 496 (with the new reading proposed in Charpin 2021b; add to this note the reference to the version of the same case given by Meptum in A.162: 14-21, where we find l. 14 the expected spelling *ta-aq-ri-ba-tum*).

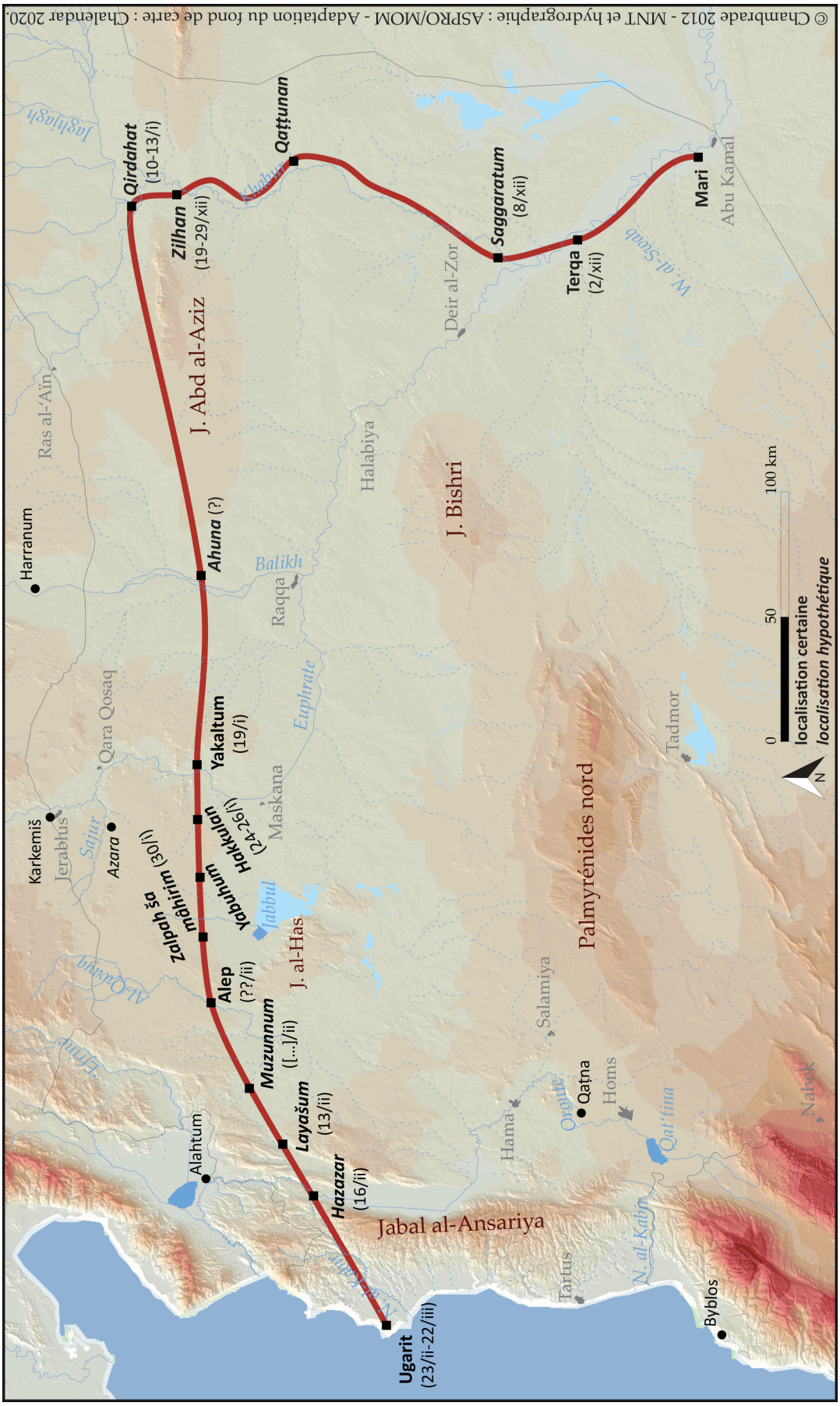
60 Following Córdoba 1990; see MTT 1/1, pp. 12-13.

61 See also ARM 33 117, where Sumu-hadu indicates that Amnanean and Yarihean Yamninites joined him from Ahuna.

62 Durand 2004: 115 n. 20. J.-M. Durand having encountered a spelling with a reduplication of the *h* (*a-ah-hu-na-a*^{ki} in A.1209: 10, to be published in ARM 35) normalizes the toponym into 'Ahhunâ' and considers that it contains a prefix an- like an-DaRiG: we thus have an-HuNa' > Ahhunâ.

63 For Mahanum, see Durand 2011.

64 See Charpin 2021a: 556 (A.2925).



to Wu Yuhong, there are two possibilities.[65] Zimri-Lim did not go to Yakaltum, but only Dariš-libur went there to receive the gifts of Aplahanda from Karkemiš; he then joined Zimri-Lim in Tuttul.[66] The second solution would be that Zimri-Lim could have gone first to Yakaltum to meet Aplahanda, then to return to Tuttul to see the general Samsi-Addu and finally go to Aleppo. But the text does not mention any meeting with Aplahanda: Yakaltum is only the place where a gift sent by the king of Karkemiš was received. It should also be noted that this general Samsi-Addu was an officer of the Aleppo army:[67] the question is therefore to know what he would have done to Tuttul. But again, Tuttul is only the place where a present sent by Samsi-Addu was recorded. Neither of these two solutions, therefore, leads to a clear endorsement.

One should mention the different interpretation proposed by M. Guichard:[68]

> "In fact, one must take into account certain particularities of the drafting of **no. 161**. We can see that some adjustments were made when writing the summary: for example, in l. 15 the scribe anticipates an operation which did not take place until the beginning of month ii. The date simply indicates that the gift from the Elders of Tuttul was not introduced into the chest until the 21st. But it is possible that the receipt of the gift was earlier. This would have the advantage of explaining the absence of a place indication (one would expect *ina Tuttul*^{ki}) normally expected." (Guichard 2005: 460 n. 185)

Nevertheless, a problem remains: Zimri-Lim having left Qirdahat only on 13/i, this leaves little time for a stay in Tuttul before 21/i.[69] A historical reminder from a letter of Yaqqim-Addu must finally be taken into account:[70]

> "Lanasum said this to Bunuma-Addu: 'When my lord went up to the Yamhad, the elders of the city deliberated (lit. stood) about (his) entering the city for a sacrifice and said: 'If a troop of (only) 50 men is to enter with you, you will enter; if not, you will not enter!'"

Note, however, that the text does not say what finally happened: perhaps Zimri-Lim did not make the detour to Tuttul, since he was refused entry to the city with the soldiers who accompanied him! So I wonder if the simplest explanation is not the following. There would have been a hesitation about the route that Zimri-Lim should have taken from Ahuna. The Aleppine general Samsi-Addu thought that he would go via Tuttul and sent him a gift in that city. But in the end Zimri-Lim chose to go straight west to join the Euphrates at Yakaltum: the present waiting for him in Tuttul would have been given to him later with the vase sent to him by the Elders of Tuttul. In any case, if Zimri-Lim had gone to Tuttul, he would have taken the road from Qirdahat to Ahuna anyway, before going down the Balih to Tuttul.

3.2.3 Another attestation for this route

It is not impossible to find another example of the partial use of the same route, in the opposite direction, in a file of letters from Dariš-libur. Having completed his mission in Aleppo, Dariš-libur was about to reach Mari by the Euphrates road: he had already reached Imar when he received the king's order to go to Magrisa.[71] N. Ziegler has endorsed the location of Magrisa on the Habur at Tell Tneinir, about halfway between Zilhan and Qirdahat (Ziegler 2011: 6-7). Dariš-libur seems to indicate that he will pass through Ahuna, but without indicating how he will reach this locality from Imar. In any case, the Ahuna-Magrisa road had to cross the steppe by bypassing Jebel Abd-el Aziz from the north: only at the end did it separate

65 "However, it was a round way for Zimri-Lim to go from Tell Munbaqa to Tuttul and then to Halab, since Tell Munbaqa is more near to Halab than Tuttul (Tell Bi'a). One explanation is that Zimri-Lim did not go to Yakaltum, but Dariš-libur, his treasure-keeper, went to there to receive the gifts sent from Carchemish, just on the upper river of Tell Munbaqa, on 18/I and then went to Tuttul to join his lord on 21/I. Another possibility is that Zimri-Lim went to Yakaltum/Tell Munbaqa to meet Aplahanda of Carchemish and went to Tuttul to meet Samsi-Addu, the general, and others so that he could not choose a straight way to Halab." (Wu Yuhong 1992).

66 For ramifications on a general move, see Villard 1992: 203 n. 64.

67 Durand 2002: 95. This Samsi-Addu is mentioned as a recipient of tin in ARM 23 556 [T18907]: 10, in Aleppo.

68 "En fait, on doit tenir compte de certaines particularités de la rédaction du **n°161**. On s'aperçoit que quelques aménagements ont été réalisés lors de la rédaction du récapitulatif : ainsi par exemple l. 15 le scribe anticipe une opération qui n'eut lieu qu'au début du mois ii. La date indique simplement que le présent des Anciens de Tuttul ne fut introduit dans le coffre que le 21. Mais il se peut que la réception du présent ait été antérieure. Ceci aurait l'avantage d'expliquer l'absence d'indication de lieu (on attendrait *ina Tuttul*^{ki}) normalement attendue."

69 Another solution has been proposed by J.-M. Durand (Durand 2004: 172 n. 339), but I will not discuss it in detail, because it is based on a correction of the date of the stay in Yakaltum (28 instead of 18, very clear on the tablet).

70 ARM 14 55 (= LAPO 18 1055): (17) ... *la-na-su-wu-um* (18) *a-na bu-nu-ma-*^{d}IŠKUR *ki-a-am iq-bi* (19) *um-ma-a-mi i-nu-ma be-li a-na ia-am-ha-ad*^{ki} (20) *i-lu-ú aš-šum* SISKUR$_2$.RE *a-na li-ib-bi* (21) *a-lim*^{ki} *a-na e-re-bi-im iz-*^{r}*zi*$^{?}$*-zu-ma* (22) [*u*]*m-ma* LÚ.ŠU.GI.MEŠ *a-lim*^{ki}-[*ma šum-ma*] 50 *ṣa-bu-um* (23) *it-ti-ka i-ru-bu* [*te-er-ru-ub*] (24) *ú-la-šu-ma ú-ul* [*te-er-ru-ub*].

71 FM 7 9. Unfortunately, l. 8-13 are very mutilated, but it seems certain to me that the name of Tuttul should not be restored l. 8 and 12 as proposed by J.-M. Durand. It is a stage between Aleppo (where Dariš-libur left "my lord", i.e. king Yarim-Lim) and Imar.

from the track leading to Qirdahat. This is another example of the existence of a direct route between the Yamhad and the southern tip of the Habur triangle.

Conclusion

The case studied here shows to what extent the combination of information extracted from documents of different nature is necessary to reconstruct an itinerary, even if this operation involves certain risks. It is important to avoid any mechanical conclusion, by asking the question of the reason for the existence of a particular toponym, before considering it as a stage: this is what the case of Tuttul has shown us. The silence of the sources must be taken into account, but can sometimes be explained. It is true that the name Ahuna does not appear in the record of Zimri-Lim's westward movement; nevertheless, this city must have been a stage on the road that led the king of Mari from Qirdahat to Yakaltum. When I presented some results of the present study in Mainz in November 2012, the coincidence with the calculations of displacement according to the "least cost" formula seemed striking and promising.[72] Let us hope that further experiments of the same kind can be carried out to take us a step further in reconstructing the network that enabled messengers, merchants and soldiers to move around the Near East in the second millennium BCE.[73]

72 K.-C. Bruhn, T. Kohr, B. Einwag, A. Otto & C. Fink: "Modellierung der Landschaft in der Westjazira und mögliche Wege von Jamhad über den Euphrat bis zum Balih".

73 Since this wish was expressed (in 2012), the "least cost" technique (LCP = *Least Cost Path*) has been applied by F. Di Filippo to the section of the Urbana/Yale route between Šubat-Enlil (Tell Leilan) and Harran (Di Filippo 2016). This is a route more or less parallel to the one studied here, but located further north and corresponding in distance: 221.5 km as the crow flies (Di Filippo 2016: 456). Unfortunately, this study is based on erroneous premises. It is wrong to believe that this itinerary dates from the time of Samsi-Addu because it mentions Šubat-Enlil and not Šehna (Di Filippo 2016: 452): it should be recalled that mentions of Šubat-Enlil persist under Zimri-Lim and beyond, alongside mentions of Šehna (see already Charpin 1987, not cited by the author, and since MTT/1/1 p. 344, s.n. Šubat-Enlil, with numerous references to PIHANS 117). It would be completely incomprehensible how a military expedition from Larsa to Imar could have taken place at the time of Samsi-Addu. A paper by N. Ziegler in Dijon in March 2012, which has remained unpublished, gave two crucial insights for the interpretation of the Urbana-Yale route. Firstly, it seems that the expedition dates from the beginning of Samsu-iluna's reign: this would explain why they wanted to bypass the Middle Euphrates region, which was not firmly held by the Babylonian king (Charpin 2011). Moreover, the movement would be commercial in nature: it is reassuring that Di Filippo's considerations on the speed of movement of an army of 10,000 men (with donkeys to carry luggage) have shown that it is hardly compatible with the data of the route. From the point of view of historical geography, the identification of Harran with Šubat-Šamaš (Di Filippo 2016: 473-475) is to be forgotten: see Arkhipov 2014 who proposed the equation Šubat-Šamaš = Hanzat and for the location of the latter at Tell Bandar Khan cf. Ziegler 2009: 205-207. For more on the "Road to Emar", see now in this book the long contribution of Ziegler, Otto & Fink 2023.

Main abbreviations

ARM 1 Dossin 1950.
ARM 4 Dossin 1951.
ARM 7 Bottéro 1957.
ARM 14 Birot 1974.
ARM 23 Bardet, Joannès, Lafont, Soubeyran & Villard 1984.
ARM 24 Talon 1985.
ARM 25 Limet 1986.
ARM 26/2 Charpin, Joannès, Lackenbacher & Lafont 1988.
ARM 27 Birot 1993.
ARM 31 Guichard 2005.
ARM 32 Arkhipov 2012.
ARM 33 Durand 2019.
FM 4 Ziegler 1999.
FM 5 Charpin & Ziegler 2003.
FM 7 Durand 2002.
FM 16 Reculeau 2018.
LAPO 16 Durand 1997.
LAPO 17 Durand 1998.
LAPO 18 Durand 2000.
MTT 1/1 Ziegler & Langlois 2016.
PIHANS 117 Eidem 2011.
For the rest, see www.archibab.fr, "Bibliography" tab.

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Forschungen zur „Road to Emar“

Recherches concernant la « Road to Emar »

Research on the “Road to Emar”

The "Road to Emar" reconsidered

Nele Ziegler*
Adelheid Otto**
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We dedicate this contribution to its fathers,
Albrecht Goetze and William W. Hallo.
They did a great job already in 1953 and 1964!

The "Road to Emar", sometimes also referred to as the "Old Babylonian Itineraries", is a group of three texts that relate to each other and contain the most important route description of the 18th century BC, and perhaps of the entire Mesopotamian written tradition. With their help, Albrecht Goetze and Willam W. Hallo, who edited the texts for the first time, were able to make a major step forward in the reconstruction of the historical geography of the Middle Bronze Age. Since the publication, our knowledge of the archival texts of the 18th century BC, of the political history and of the settlement of Mesopotamia in the Middle Bronze Age has made tremendous progress. After years of close cooperation between philologists and archaeologists and the systematic collection of all available data, the full potential of the "Road to Emar" (RTE) for the reconstruction of the historical geography of the early second millennium will be presented here.[1]

1. The Contribution of Archaeological Research to the Old Babylonian Itineraries

1.1 General preliminary remarks on routes in archaeological research

In the last 25 years a tremendous dynamic has developed in the field of landscape archaeology, and the combination of archaeological data with remote sensing has become an integral part of the research on settlement distributions, historical geography and route systems.[2] Nevertheless, some general preliminary remarks on the possibilities and pitfalls in the study of ancient route systems should be made here.

A route is by no means always the shortest connection from A to B. Therefore, the method often used in historical geography of placing approximately contemporaneous places on a blank map and drawing lines between them, although simple, usually proves to be wrong when topography and geomorphology are taken into account.

- The common idea that river valleys make good paths is erroneous. Sometimes the river meanders strongly and the valley becomes narrow and impassable at the baffle slope, sometimes the valleys are swampy and the riv-

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1 Nele Ziegler was responsible for the philological part, Adelheid Otto and Christoph Fink for the archaeological, whereas many ideas and localisation suggestions were discussed in numerous joint meetings in Paris and Munich. The foundations of the article were laid during the HIGEOMES project, funded by ANR and DFG. This project focused on the historical geography of Upper Mesopotamia, and this may explain why the focus of the archaeological part of this article is clearly on the Jazira area.

Detailed information on individual toponyms as well as on archaeological sites can be found in the publication resulting from the above mentioned project, MTT I (Cancik-Kirschbaum, Otto & Ziegler 2016, also digitally accessible: https://books.openedition.org/cdf/7398). The archaeological sites are referred to by their numbers assigned in the project (Hig. No. X), listed in Fink 2016. References to text publications and further litterature can be consulted on the www.archibab.fr website.

N. Ziegler finalised this contribution as part of the project PCEHM, funded by ANR.

2 Wilkinson 2003; Ur 2010; Lawrence *et al.* 2020.

er edges are reedy, making it impossible to move close to the river. A river cannot be crossed by foot without problems in any number of places, but only in the area of fords and by boat, or possibly by swimming in places with as little current as possible.

- The method of reconstructing the routes on the basis of hollow ways is possible. However, it cannot be successfully applied in all areas of the Near East, but especially in regions that have been little anthropogenically deformed, i.e. where steppe or semi-steppe prevails today, as well as in sparsely populated areas in the rain-fed region.[3] Especially in areas of river valleys, where settlements are concentrated, or in areas with intensive irrigation farming, paths are difficult to determine by means of hollow ways due to sedimentation or because of the canal net.[4] Since the sometimes up to 100m wide and often very shallow hollow ways are hardly recognisable on the surface, most of them are recorded using remote sensing data; CORONA satellite images from the 1960s, when agriculture was much less intensive, are particularly helpful.
- In recent years, the method of least cost path analysis (LCP) has become very relevant (Surface-Evans & White 2012). On the basis of a digital elevation model, LCP calculates the best possible path between two locations. General parameters were calculated for the movement of a person walking. The cost model includes several cost components. The most evident is the slope, but other cost components such as load, vegetation cover, water as barrier or attractor, social and cultural factors are equally important, although difficult to reconstruct after thousands of years (Herzog 2014).
- The time and energy expenditure is usually determined on the basis of various empirically collected data. However, the "Tobler's hiking function", which is often used in archaeology and indicates an optimal gradient or slope (Tobler 1993), is not undisputed. This is because these relatively simple calculations concern the walking of a person without taking into account, for example, the component load. Especially for trade routes on which goods were transported, this component is crucial. It is also calculated in a relatively mechanical way with a reasonably smooth and homogeneous surface. Neither the possible vegetation is taken into account, nor the condition of the surface (slippery, stony etc.), which in turn depends on the seasonal effects.
- Various other push and pull factors, which are not related to geomorphology and cannot be deduced from an elevation model, influence the choice of an itinerary and the speed of travel. Classic pull factors are water points (springs, rivers, wells), favourable accommodation options or other subjective human decisions. Push factors can include political, economic or sociological circumstances, e.g. hostility with the inhabitants of an area, unsafe route due to bandits, customs stations or the like.[5]
- Other factors are the type and number of travellers and the occasion of the journey, i.e. whether a private person, an army or a group of traders are moving. While a military movement will deviate from the straightest line mainly due to political constellations (bypassing enemy territory), the journey of traders does contain potential for deliberate detours in order to acquire or sell goods on the way.

1.2 Theoretical preliminary remarks on the parameters of a Middle Bronze Age journey

Today we lack essential information on the determining parameters of a journey that took place in the Bronze Age. These include the vegetation of the time, which played an important role in the choice of route; it could be favourable, for example if trees provided shade in summer or if the travellers' animals found sufficient food, or it could be obstructive, for example due to swamps, forests or dense vegetation (see also the contribution by Deckers & de Gruchy 2023 in this volume).[6] It must also be taken into account that some routes changed seasonally. For it is known from archaeologically attested paths and roads that they were

3 Hollow ways are shallow linear depressions in the landscape some of which were formed by the continuous use of people or animals, either for getting to the fields and agricultural areas in use, or to villages and other settlements, sometimes even on long distance routes. Interest in hollow ways has started already 90 years ago (Poidebard 1934), was developed further by van Liere & Lauffray (1954-1955), and has been established as a method by Wilkinson & Tucker 1995. See also Wilkinson 2003, Ur 2003, Altaweel 2008, de Gruchy & Cunliffe 2020. The broad hollow ways in the Jazira are thought to date to the Bronze Age, whereas the narrow hollow ways are said to belong to the Byzantine – Early Islamic period (Ur 2003). However, as the age of the hollow ways is difficult to determine, there is sometimes disagreement about this, see Weiss & Courty 1994.

4 Elizabeth Stone (2014), however, showed that the method may also work in the alluvial plain of southern Mesopotamia.

5 See also Seifried & Gardner 2019, who tested various LCP models on a well-documented early 19th century travel route in Greece. Based on these findings, they abandoned the determination of a single route and identified a possible corridor of routes by using a modified "Tobler function".

6 Reconstruction of vegetation always plays a major role in all published surveys, see for example Wilkinson & Tucker 1995.

only paved inside villages (mostly by pebbles, sherds and other waste material), but outside they were pure tracks. Therefore, although they were easily passable in the dry season (about May to October), in the rainy season (about November to April) only some paths were certainly passable without problems. Even in summer, dry wadis could turn into impassable streams after occasional, but sometimes torrential rainfall. However, the most urgent need in summer was the accessibility of water sources in form of perennial watercourses or wells at short intervals. In the wet season, water was available in many places in depressions or wadis, which was at least sufficient for the animals. It is therefore quite possible that different routes were chosen for the same journey in summer or winter.

From an archaeological point of view, there are no clues as to how fast people travelled at that time. Apart from Joaquin Córdoba's legendary survey on horseback in the 1980s in the lower Balih Valley (Córdoba 1988, 1990), our present-day modes of movement have little in common with those of the past in terms of speed and type. However, the information from the fortunately numerous travelling accounts of the 19th and early 20th century A.D., when travellers still moved on horseback or in caravans and all roads were unpaved tracks, is quite comparable and therefore very relevant for our question (see contribution Dietz 2023, this volume).

So, when it comes to reconstructing the stations of routes documented in cuneiform texts, archaeology requires not only the most complete possible recording of sites by means of excavation or survey and data regarding their chronology, but also all available satellite images, aerial photos, modern and ancient maps, information from the travel accounts of the last centuries, the most accurate possible information on geomorphology and the environment, and geoinformatics. With the help of this vast and time-consuming set of methods, the most probable route or corridors can be tentatively reconstructed and, based on this, archaeological sites can be searched for along the assumed route.

1.3 What do "stations of a journey" mean on the archaeological level?

Cuneiform travel descriptions often mention the stations of a journey, i.e. the places where people stayed overnight. The question is what one should imagine by this and what archaeological relics this would have produced. Does a station always have to be a settlement where one stayed overnight? Did one spend the night inside the city walls, which offered protection against criminal attacks, wild animals or unfavourable weather, or did one stay outside the city walls and perhaps pitch a travelling tent? Were there roadside stations along the way where travellers and their animals could be fed and cared for?[7] Cuneiform texts do mention road stations, but nothing like a road station has ever been excavated, and only rarely are structures mentioned that were located along ancient roads and could possibly be road stations.[8] The problem is: what relics of these would manifest themselves archaeologically? Since it is almost impossible to find isolated buildings after millennia, we can only proceed by looking for natural resources that would favour resting where no settlement remains have been reported, i.e. springs and other water sources, and then assume the likelihood that stations could have been located near such water points. Also, very small villages and settlements with a short life span often do not manifest themselves today. In addition, many sites of that time are covered by later layers, destroyed or not yet recorded. At least half of the stations on the "Road to Emar" are hardly ever mentioned in other texts, from which it may be concluded that some were probably small villages or road stations. Locating such ancient sites, which may have been inhabited only briefly or were very small, is generally very difficult and would only be possible by chance or through an extremely intensive survey.

2. The Old Babylonian Documents of the "Road to Emar" (RTE)

2.1 Three texts – one trip

The texts of the "Road to Emar", or the so-called "Old Babylonian Itineraries", enumerate the stages of an anonymous traveller who had journeyed through the Tigris Valley, the Habur Triangle and the Balih Valley on his way there and back from Larsa to Imar via Babylon and Sippar. The texts report the journey as a collective event – as evidenced by the verb in the 1st person plural in text B: 5. The author is not the organiser, but a participant. Text A: iv 14' uses the 1st person singular.

7 Heimpel 1994 for rest houses ZI.GÚM = *si*KK*um*. Such road stations do not seem to be documented after the Ur III period.

8 For example, Oates 1968: 59-60 with fn. 5 describes small mounds along the King's Road from T. Ḥuwaish (which we now identify with Ekallatum, see this volume Ziegler & Otto 2023) to the north: "At intervals of some 4km., where the road crosses the crest of a ridge, there are small mounds between 5 and 10 m. in diameter. On these only a few sherds of indeterminate character were found. Their purpose is obscure; they are well sited for signal stations but seem unnecessarily close to one another. Only four were identified and their siting may be fortuitous."

The three texts have been published in two basic essays. They are designated in the following with the bold letters A, B and C.[9]

A. Goetze, "Remarks on the Old Babylonian Itinerary", *JCS* 7, 1953, 51-72 (in the following Goetze 1953)
○ Publication of **A** [UIOM 2134].
○ Publication of **C** [UIOM 2370].
W. W. Hallo, "The Road to Emar", *JCS* 18, 1964, 57-87 (in the following Hallo 1964)
○ Publication of **B** [YBC 4499].

The three documents, bought on the art market and housed in the Yale and Urbana collections, were certainly found together by illegal diggers, probably in Larsa. They record different stages of composition.

- ○ Text **A** was compiled after the return and contains the entire route.
- ○ Text **B** contains the stages of the outward journey from Dur-Apil-Sin.
- ○ Text **C** contains a small section of the return journey from Šuna to Adum.

It can be assumed that Text **A** was composed on the basis of the information from **B**, **C** and certainly several other documents not yet published or discovered. This means that the scribe initially recorded the stages of his journey on individual smaller documents, similar to text **C**, brought these with him in his luggage and only compiled them into text **A** back home. Text **A** is a kind of "expense voucher". It details all the overnight stops, gives exact dates and lengths of stay, but is otherwise kept laconic.

Since the three texts testify to a travel route with stages of the outward and return journey, we can refer to them as a unit. We do this by referring to the whole as "Road to Emar" under the abbreviation **RTE**.

2.2 First considerations at the time of writing the text

When were the Old Babylonian **RTE** texts written? An answer to this question is difficult. The texts only contain information on the month and day, but they are not dated to a year, unfortunately, and the motivations of the travelling party are not clearly given.

A. Goetze[10] put together the arguments at his disposal and concluded that the Old Babylonian itineraries could have been written at the earliest in the years Hammurabi 31 and 32. He set the latest date as the decline of the Babylonian empire under Samsu-iluna. He also emphasised that no Kassite presence was yet noticeable. He suggested that the year name Samsu-iluna 28 could commemorate military events that directly illuminated the Old Babylonian itineraries.

W. W. Hallo underlined the fact that the travellers went far around the territory of the Mari Kingdom. This would suggest that the text was written either during the reign of Yahdun-Lim or Zimri-Lim, or at the beginning of the Hana period before 1740 B.C. He considered it possible that the text is a royal travel account[11], of which no one nowadays seems to be convinced.

Francesco di Filippo considered a dating during the reign of Samsi-Addu as probable, since Šubat-Enlil is mentioned.[12] This dating hypothesis seems very unlikely, however.

Although the exact date of the text cannot be established beyond doubt, the following has to be assumed. The **RTE** texts were written at a time when Larsa was part of the Babylonian kingdom, i.e. from 1763 BC until the revolt of Rim-Sin II (1741 BC). It also seems likely that the texts were written only after the destruction of Mari (1760 BC). The travellers bypassed the territory of the former kingdom of Mari widely—the area was too unsafe for them, perhaps there was anarchy or a dynasty hostile to Babylonians had gained control.

2.3 Accompanying information in the itinerary texts of the RTE

Several asides are found in the two main texts of the **RTE**, but they are mostly difficult to interpret. We wish to compile them all here, using the sequence of the itinerary as a guide. Philological comments can be found in § 6 on the respective passages.

Text A col. i

1 [ITI ŠE.KIN.KU$_5$ U$_4$ 2]6*.KAM BA.ZAL
2 [U$_4$ x.KAM URU^{ki}-*a*]-*hu*$^{!}$-*ma*

1 [Month xii, day 2]6:
2 [Day x in Al-A]humma (§ 5.A.2)

9 The three texts are designated as suggested by Hallo 1964: 64. The UIOM documents are now available as photographs on the CDLI website (see below §7). See for a general presentation of these "itineraries" Edzard 1976-1980: 217-218.

10 Goetze 1953: 70b-71.

11 Hallo 1964: 84.

12 Di Filippo 2016: 452. His main argument seems to be the use of the toponym "Šubat-Enlil" and not "Šehna". However, Šubat-Enlil is still called that in later texts. The toponym also appears in the so-called Cuthean Legend from the 1st millennium BC, see Adali 2011: 48 fn. 38.

Text B
1 ZAG ITI ŠE.KIN.KU$_5$ U$_4$ 26.KAM BA.ZAL
2 EN.NA ITI GÚ.SI.SÁ U$_4$ 4.KAM
3 ŠU.NIGIN$_2$ ITI 1.KAM *ù* U$_4$ 8.KAM
4 *iš-tu* URU$^{ki!}$*-a-hu-um-ma*
i-na BÀD*-a-pil-*^{d}EN.ZU *ni-is-sú-hu-ú*

1 From month xii day 26
2 until month ii day 4
3 – a total of 1 month and 8 days –
4-5 is, what we made/spent from Al-ahumma (§ 5.A.2) to Dur-Apil-Sin (§ 5.C.1).

Text A col. i
17 U$_4$ 4.KAM *ma-ki-sú*[*m*]
18 *i-nu-ma* ERIN$_2$.HI.A *ip-p*[*a-aṭ/ah-ru*]
19 *ù* ^{giš}MÁ.HI.A *i-tu-r*[*a*]*/-nim*

17 4 days Mankisum, (§ 5.C.5)
18 when the men have been relea[sed]/ga[thered]
19 and the boats returned.

Text A col. i
24 [U$_4$] ⌜2.KAM⌝ *su-qá-*[*qù-ú*]
25 [a-šar ERIN$_2$.HI.]A U$_4$ 2.K[AM]
26 [*wa-as-b*]*u-*⌜*ú*⌝

24 2 [days] Suqa[qu], (§ 5.D.7)
25 [the place where] the [workmen/troops]
26 [sta]yed 2 days.

Text A col. ii
7 U$_4$ 3.KAM *aš-na-*[*a*]*k-ki*
8 *a-šar um-m*[*a-na-t*]*um*
9 ⌜*ra*$^{?}$⌝*-*[x x o o x] *im-hu-ru*

7 3 days Ašnakkum, (§ 5.H.1)
8 the place where the a[rm]y
9 [has … (and) where] they received/met° […]

Text B
30 U$_4$ 1.KAM ŠÀ*-bi* KUR *a-sa-am /*
31 *ù a-ba-a*

30-31 1 day in the heart of Mount Hasam and Aba (§ 5.H.12)

Text B
42 U$_4$ 2.KAM *a-ša-ar ba-ah-ra*
i-sí-hu
42-43 2 days at the place, where they assigned elite troops (§ 5.J.4)

Text A col. iv
13' [ŠU.NIG]IN$_2$ ITI 6 U$_4$ 14.KAM
14' [*wa*]*-ṣí a-na ta-ri-/ia*

13' Total: 6 months 14 days
14' my departure until my return.

2.4 Who wrote the texts of the RTE?

We do not know the purpose of the journey, nor do we know the nature or number of the travellers. Two hypotheses have been advanced. The first hypothesis is that the itinerary reflects a military event and that the traveller was even an army commander. A military context is suggested by the epigraphs (see left column), in which words such as *ṣābum* "workmen/troop", *ummanātum* "armies", *baḫrum* perhaps "elite troop" occur or are restored, or verbs such as *paṭārum* N "to be demobilised" and perhaps *esēḫum* "to attribute" (often said of troops or workmen). But it is known that these terms do not only occur in military contexts: *ṣābum* refers to any group of "people", including working gangs, and *esēḫum* is also often used in civilian contexts. It also seems certain that caravans had to travel under the protection of escorts, and furthermore, workers were needed as trekkers of the boats. The second hypothesis, which seems more likely to us, assumes that this was a group of people travelling for commercial or other civil reasons.

A. Goetze assumed a military motive and that the year name Samsu-iluna 28 would commemorate events, which were reflected by the texts of the **RTE**.[13] A few years later he consolidated this opinion and suggested that the **RTE** "describes station by station the march of an army from Larsa to the upper Euphrates and back."[14] W. W. Hallo also suspected a military context when he wrote:[15]

> "Old Babylonian literature in Akkadian as well as Sumerian knew, for practical purposes, only two subjects: gods and kings. It follows that the subject of the Itinerary (who emerges in the first person in the last sign of the text!) is most likely a king, or at the least a high royal official. The numerous, if problematic, allusions to military matters in the text further suggest that a military mission led by a king or his general is its primary concern. We may conclude, then, that the Itinerary is part of a historical record of a royal campaign which was on the way to becoming a piece of literature."

13 Goetze 1953: 70-71.
14 Goetze 1964: 114.
15 Hallo 1964: 84b.

F. di Filippo considers military action unlikely because, in his opinion, an army cannot advance so swiftly and in regular stages. We agree with this analysis. Let us quote him at length:[16]

> "On this basis, is it still possible to consider the Urbana-Yale itinerary as the report of a journey undertaken by an army across much of what today is Iraq, northern Syria, and south-eastern Turkey? The comparison between historical evidence and computed patterns of movement should definitively disprove the identification of the travelling party with a large military force on the march. Conversely, the LCP analysis seems to substantiate the doubts of those authors who have never been convinced with the original interpretation of both Goetze and Hallo about the purpose of the journey and the identity of the travellers.[17] The state of uncertainty about the contents of the brief narrative units that have been considered the evidence of a military expedition can be here summarized by citing Brinkman[18]'s argument, according to whom: "one also wonders why most authors dealing with the Old Babylonian itineraries assume an army must be involved. Surely the ERÍN.ḪI.A (JCS 7 [1953] 52 i 18) who accompanied the unnamed traveller could be viewed simply as a group of men – ṣābum can mean both "army" and "men", some of whom could have served as caravan guards. (The reading of the word um(?)-ʿx-x-tumʾ in the same text, ii 8, is too uncertain to permit a translation "troops")"

and finally:

> "It would be difficult to envisage a political situation in the Old Babylonian period which would either require or permit an army to march from central Babylonia via northern Assyria all the way to the upper Euphrates and back over a period of six months with such regular stops and without mention of any overt military activity".

2.5 A possible archival context?

The three texts of the RTE do not come from regular excavations, but were probably acquired at the turn of the 19th and 20th centuries on the antiquities market. The CDLI website indicates an accession date of texts A [UIOM 2134] (https://cdli.mpiwg-berlin.mpg.de/artifacts/420515/reader/199859) and C [UIOM 2370] (https://cdli.mpiwg-berlin.mpg.de/artifacts/420750/reader/200094) by the Spurlock Museum, University of Illinois (Urbana-Champaign) in 1913.

The archival context is unknown. Certainly, the RTE texts were not alone when looters found them. It can also be assumed that other texts documented parts of the route and were similar to Text C. These have not yet turned up.

A couple of years ago Christopher Walker drew Nele Ziegler's attention to a group of unpublished texts in the British Museum which he thought might have come from the same archive as the RTE. We would like to thank him for this information.[19] Several texts mention among other things trading activities and boats. The most interesting text for our search for the archival context of the RTE is BM 16190. It is dated 30/v/Samsu-iluna 2. The text is a debt note over the hiring of Sin-kuzub-šame, who travelled with Apil-Sin for five months as trade commissioner (*šamallûm*).

1 1,1,1 5 SILA$_3$ Á.BI ʿU$_4$ x.KAMʾ
2 *ša iš-tu* ITI BÁR.ZAG.GAR
3 *a-di* ITI NE.NE.GAR U$_4$ 30.KAM BA.ZAL
4 *ni-ka-as ṣa-bi-it-ma*
5 *ša* U$_4$ 8.KAM *ú-ma-at*
6 *nam-sí-im*
7 0,2,4 ŠE *ni-ka-as*
8 *ṣa-bi-it-ma*
9 ŠU.NIGIN 1,3,5 5 SILA$_3$
10 Á.BI *ša* ^{d}EN.ZU-*ku-zu-ub-ša-me-e*
11 *it-ti* ^{I}*a-pil-*^{d}EN.ZU
12 *a-na ša-ma-lu-tim*
13 *it-ta-la-ku-ú*
14 *ù ša a-na nam-sí-im*
15 *il-qú-ú*
16 UGU *a-pil-*^{d}EN.ZU
17 ^{Id}EN.ZU-*ku-zu-ub-ša-me-e*
18 IN.TUKU
19 IGI DINGIR-ni DUMU ʿx x xʾ
20 ʿ^{ma}KIŠIBʾ *a-pil-*^{d}EN.ZU
21 ITI NE.NE.GAR U$_4$ 30.KAM BA.ZAL
22 MU *sa-am-su-i-lu-na*
23 ŠE.GA DINGIR GAL.GAL.E.NE

1-3 375 l (of barley) hire for x days that are from month i until month v day 30.
4 The account is settled.
5-8 For the 8 days of the "water basin"//brewing vat 160 (l) of barley the total amount is taken.

16 Di Filippo 2016: 467-468.
17 Di Filippo 2016: 467 fn. 75 gives as bibliography for this: "See for instance Leemans 1968, 211-212; Clines 1972, 420-421; Davies 1974, 55; Astour 1995, 1411-1414; Fales 1996, 127-128; Ziegler 2002, 234-235".
18 Brinkman 1970: 313-314.
19 The text group gives no geographical clues, so we do not want to publish it here.

9-15 Total 535 l (of barley) hire of Sin-kuzub-šame who was regularely going with Apil-Sin as a trading agent and whom he/they took for the "water basin"//brewing vat.
16-18 Over Apil-Sin Sin-kuzub-šame has (it as claim).
19 Witness: Iluni son of [...]
20 Sealing Apil-Sin.
21-23 Date: Month v day 30. Year Samsu-iluna 2.

2.6 A dating of the RTE at the beginning of Samsu-iluna's reign as a working hypothesis

The attempt to connect the RTE texts with the archive of the merchant Apil-Sin is not compelling, but a dating around the year Samsu-iluna 2 seems plausible to us. Even if the RTE texts were to belong to the same archive as BM 16190 (see above § 2.5), they probably do not date from that exact year.

Samsu-iluna 2 probably partly overlaps with the eponymous year Habil-kenum, which is particularly well known from the archives from Tell Leilan.[20] The following year is eponymy Amer-Ištar, which is also well attested.

At the beginning of the year Habil-kenum, Mutiya was probably still the ruler of the kingdom of Apum, whose capital was Šubat-Enlil/Šehna. A little later he was to be succeeded by Till-Abnu. The archives from Tell Leilan allow us to get a better idea of the geopolitical situation of Upper Mesopotamia. The political problems between the kingdom of Apum and the kingdom of Yussan could provide one of the explanatory models for the unusual trajectory of the Itinerary.

In the following, we use a dating around the year Samsu-iluna 2 as a working hypothesis, because it allows us to explain geopolitical issues. Should new discoveries make it possible to correct this hypothetical dating, it nevertheless seems conceivable that the geopolitical situation in Upper Mesopotamia had not changed decisively in the meantime. Even then, the geopolitical considerations made here can retain their validity, at least in part.

2.7 Short comment on the spelling of the toponyms

The writer of the three texts of the RTE came from southern Mesopotamia. He may not have been very familiar with the areas he travelled through. In any case, he had not learned at the time of his school education how some toponyms should best be written down. His spelling of the toponyms is sometimes idiosyncratic, some place names deviate from the spellings known so far. Some place names are as yet unexplained. The linguistic analysis of the toponyms is of secondary importance for us in this chapter. We therefore use normalising spellings without lengthenings. Sometimes we use the toponym with its mimation if we know that this was in use in Old Babylonian. If we do not know this, we use a spelling close to that of the author of the RTE. We have compiled some peculiarities in the spelling of place names below. For Upper Mesopotamia, the texts of the archives from Mari and from Tell Leilan serve as comparative material.

Omission of divine classifyer
- Kar-Šamaš § 5.C.5: A: i 16 *kar*-UT[U], B: 8 *kar*-UTU.

Usually attested mimation omitted
- Admum § 5.H.15: A: iii 11 *ad-mi*
- Adum § 5.E.6: C 10 *a-du-ú*, A *ditto*
- Apqum § 5.I.2 B: 33 *ap-⌜qú⌝-ú ša ba-li*$^{!}$*-/ha-a*. Text A only has the stages of the onbound trip, where the toponym is written in an erudite spelling: A: iii 7 *ap-qum ša* ^{d}KASKAL.KUR.
- Ašnakkum § 5.H.1 A: ii 7 and B: 26 *aš-na-ak-ki* but A: iii 21 (*aš-na-ak-kum*) is correct
- Bakitanum § 5.H.8: A: iii 16 PA-*ak-ta-nu*
- Kar-Kakkulatim § 5.C.3: B: 7 *kar-ka-ku-la-ti*
- Mankisum § 5.C.5: B: 9 has *ma-an-ki-sí* while text marks the mimation A: i 17 (*ma-ki-sú*[*m*]).

Variations in the writing of labials
- Bakitanum § 5.H.8 PA-*ak-ta-nu*
- Sanipa (§ 5.E.7) A: iii 31 (*sà-ni-⌜pa-a⌝*); B: 19 (*sa-ni-pa-a*); C: 9 (*sà-ni*-BA-*a*)
- Šubat-Enlil (§ 5.G.1) is written in text A twice *šu*-PA-*at*-^{d}EN.LÍL. B: 24 (*šu-ba-at*-^{d}EN.LÍL.LÁ), C: 3 *šu-ba-at*-^{d}EN.LÍL. See fn. 223
- Zalpah § 5.I.4 B: 35 *za-al*-BA-*ah*, Text A: iii 7 has *za-al-pa-ah*.

Other variants
- Harzi/Harrusi: see the explanations in § 5.G.2, this toponym is probably to be identified with Hurașa(n)
- Kalizit § 5.F.5: C: 7 *ka-⌜li⌝-zi-⌜it⌝* A: iii 29 has *ka-li-zi*
- Libbi-gerrum: see the comments in § 5.F.7
- Mammagira § 5.H.4 B: 28 *ma-ma-a-gi-ri* with long A and final I which is not otherwise attested
- Șerda § 5.I.5 B: 36 *ṣe-er-di*
- Urkiš § 5.G.4: *ur-ge-eš* instead of the more usual IŠ, see attestations in Ziegler & Langlois 2016: 385-386.

20 Vincente 1991.

3. Hard Facts and Methodology

3.1 The hard facts of the itinerary

The clay tablets published by A. Goetze in 1953 and W. W. Hallo in 1964 describe a real journey from Larsa to Imar and back in daily stages. The outward and return journeys together took 6 months and 14 days. The three texts of the RTE testify to one journey that actually took place. The outward and return journeys partly record different stations and different lengths of stay, ranging from one day to a maximum of 26 days. For most stations, however, only one day is mentioned, which means that the travellers only stayed overnight in one place.

The season in which the journey was undertaken is also known. It began in Larsa in spring (end of month xii = March/April), reached Imar in summer (24/iii) and arrived back in Larsa in autumn, on 13/vii. This information is important for the reconstruction of the route. Since the travellers in Upper Mesopotamia and their presumed pack animals were essentially dependent on regularly obtaining drinking water, the routes had to be laid out in such a way that they passed water points or springs outside the river valleys (see E. Cancik-Kirschbaum 2023, this volume). In the wetter season, river valleys will have been avoided whenever possible, and tracks though the steppe favoured. Both the environment and vegetation as well as the climate can only be reconstructed approximately, because the vegetation and agriculture in particular have changed considerably up to the present day.[21] However, the climate in the early second millennium BC must have been roughly comparable to that of the early 20th century AD (not to the climate today!) in terms of rainfall and temperature, and also the coexistence of nomads and sedentary people was not entirely dissimilar.[22]

Of the altogether 81 stops, only five were reliably located in the 1953 and 1964 editions, namely **Larsa**, **Babylon**, **Sippar**, **Aššur** and **Harran** (Fig. 1). Three stations were correctly placed by the first editors, although they had not been securely identified at that time: **Imar** was correctly assumed at Meskene, as well as **Šubat-Enlil** in Tell Leilan and **Ašnakkum** in Chagar Bazar (even if it is missing on Hallo's map), while the tentative location of **Tuttul** on the Upper Euphrates later turned out to be incorrect. The **73 other remaining stages** were unknown. Accordingly, the reconstruction on a map was approximate, even if the rough course of the journey was already remarkably correct on many stretches.

Since 1964 several more of the sites mentioned in the RTE texts have been securely identified thanks to archaeological excavations: Šubat-Enlil = Tell Leilan, Ašnakkum = Chagar Bazar, and Tuttul = Tell Bi'a. On the return trip Urkiš = Tell Mozan is mentioned.

Some areas of the itinerary have been explored by surveys since 1964[23], including the area north of Aššur[24], the area between Jebel Sinjar and the Habur Triangle[25], the Habur Triangle[26], the Balih valley[27] and the West Jazira bordering the Balih Valley to the west[28] and the Euphrates Valley between Tuttul and Emar / Imar[29]. However, other areas have not been sufficiently explored: the area between the westernmost tributary of the Habur and the Balih Valley has hardly been surveyed, with the exception of the Wadi Hamar survey near Tell Chuera, and the sites in the Harran Plain can also only be roughly dated to the 2nd millennium without further specification into even the Middle or Late Bronze Age.[30]

The method and documentation of surveys also vary greatly, so that quite different information is available. For example, until a few years ago it was very difficult and time-consuming to record the size and structure of surveyed settlements. Since satellite images have been freely available and especially since the publication of the Corona satellite images of the 1960s, which show a landscape still largely spared from intensive agriculture and modern road and canal construction, this essential method is now available to us.

The theoretically most convenient direct route from Larsa via Babylon to Imar would have led across the territory of the former kingdom of Mari[31] or the steppe west of it[32] and would have been about 300 km shorter. The Old Babylonian travellers obviously did not want to take this shorter route, which is well documented in the earlier Mari texts, or they could not take it because the dangers for travellers from southern Mesopotamia would have been too great in this area.

It is noticeable, however, that not only the kingdom of Mari was bypassed. Along the entire route, few places were visited that were politically important capitals according

21 Riehl & Deckers 2012; Deckers & de Gruchy 2023, this volume.
22 Ristvet & Weiss 2013 ; see also Dietz 2023, this volume.
23 See Fink 2016: map 2.
24 Oates 1968; Ibrahim 1986; Altaweel 2008.
25 Wilkinson & Tucker 1995.
26 Meijer 1986; Lyonnet 2000; Ur 2010; Ristvet 2012.
27 Mallowan 1946; Córdoba 1988; Curvers 1991.
28 Einwag 1993/1994, 1994, 2000, 2010.
29 Kohlmeyer 1984, 1986.
30 Fink 2016: xii-xv.
31 Hallo 1964: 86; di Filippo 2016: 453.
32 For this connecting route from Babylonia to Aleppo through the steppe see Ziegler 2004.

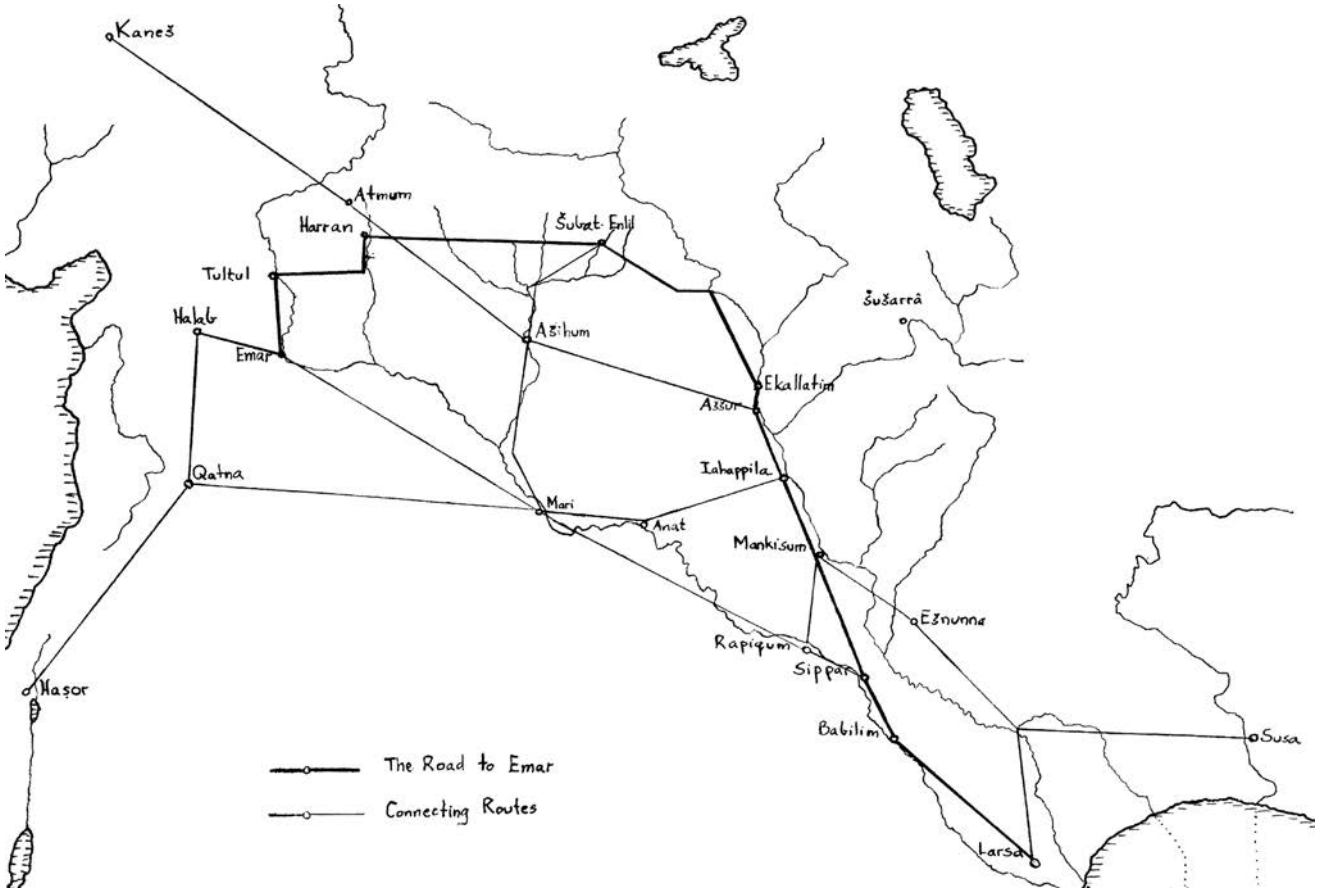

Fig. 1: Map published by Hallo 1964, Fig. 6.

to the prevailing understanding of that time. After leaving the kingdom of Babylon, which was at its maximum extent, the travellers stopped only in a few capitals for which a well-organised *kārum* is known: Aššur and Šubat-Enlil. They also stopped at Ašnakkum, but this was the capital of a vassal of the kings of Šubat-Enlil/Šehna, and on the way back through Urkiš, which was also a medium-sized power only. They went as far as Imar, which was the trade hub between Mesopotamia and the kingdom of Yamhad (Aleppo) and was politically dependent on Aleppo.

3.2 Applied Method of the Reconstruction of the "Road to Emar" Presented Here

We reconstruct the "Road to Emar" in the following way:

- Texts **A**, **B** and **C** serve as the primary source. Taken as a unit, we refer to them under the abbreviation **RTE**.
- For each ancient toponym mentioned in the RTE, the available textual sources of the Old Babylonian period are consulted. For Upper Mesopotamia, the basis is provided by the extensive data collection of Ziegler & Langlois 2016. For the Babylonian area, an updated auxiliary work is not yet available. We rely on Brigitte Groneberg's Répertoire géographique des textes cunéiformes 3[33] and were able to supplement the more recent data, mainly thanks to the website www.archibab.fr.
- The toponyms identified serve as cornerstones that allow us to divide the route into 10 segments. The outward and return stages are dealt with in separate sections (§§ **A-J**).
- The distance as the crow flies of each segment is measured between two known locations and, according to the number of stages, the mean and the maximum and minimum of the distance to be covered each day are calculated.
- In this area, tells or other archaeological localities are searched for which have a proven or at least assumed occupation in Old Babylonian times. The search is based on georeferenced maps from surveys, aerial photographs and all available maps that have been integrated into the GIS. All features that emerge from the texts

33 Groneberg 1980.

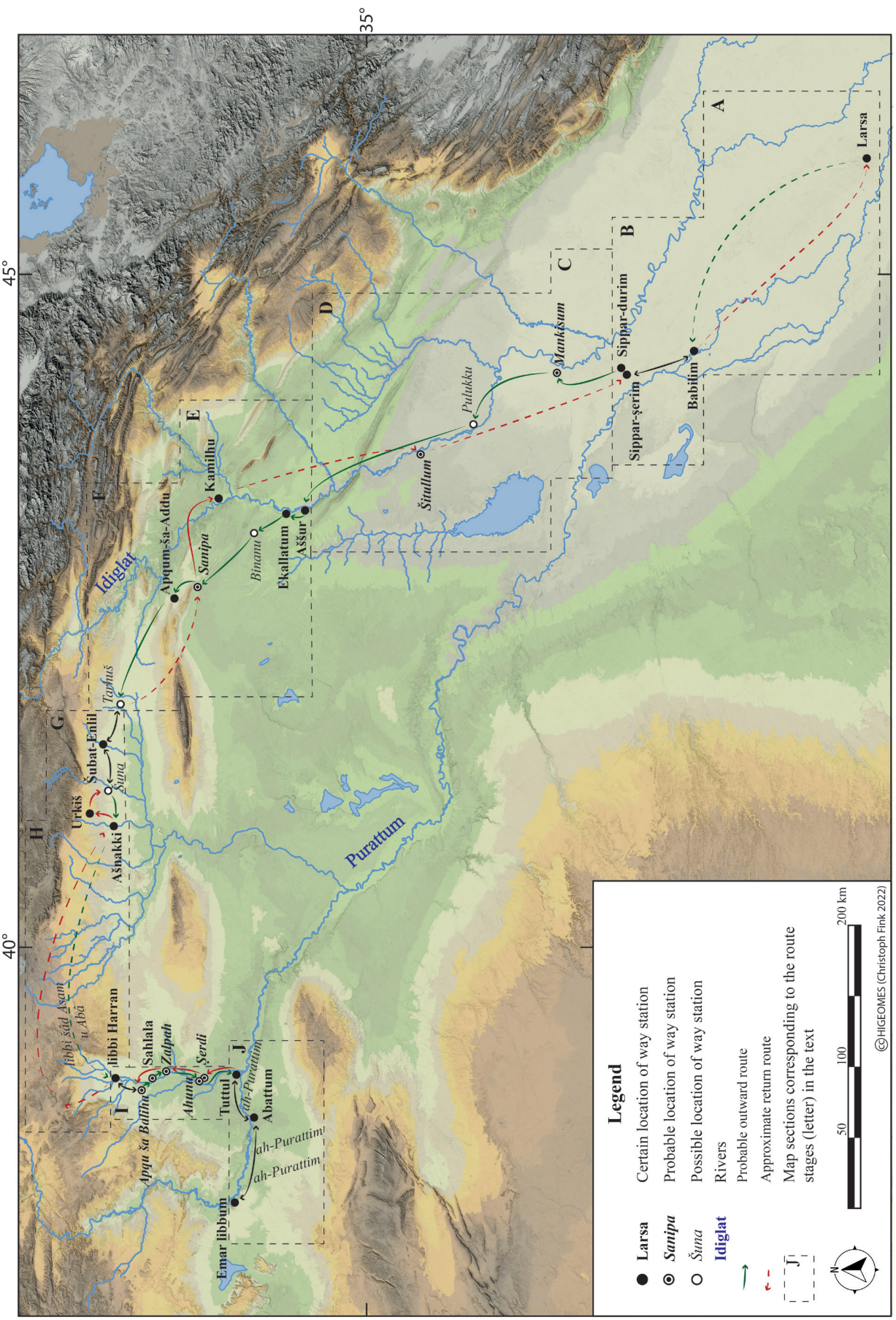

Fig. 2. The overall "Road to Emar" with our suggested path, a few surely identified toponyms and the segments of the trip at a glance.

Outbound night stops ↓	**Date** out-bound day/ month	**Stops**	**Date** inbound read up	**Inbound** ↑↑↑ read up ↑	**Comments** §	**Textual attestation**	**Identification** **Sure (3)** ***Probable* (2)** *Possible* **(1)**
		Larsa	13/vii		**§ 5.A.1**	A: iv 12'	**T. Senkereh (3)**
[...] ↓	26/xii	**Al-Ahumma**			**§ 5.A.2**	A: i 2 B: 4	
[...] ↓		[...]ahi				A: i 3	
[...] ↓		**Rahabum**				A: i 4	
[...] ↓		[...]				A: i 5	
[...] ↓		[...]				A: i 6	
[...] ↓		[...]ni				A: i 7	
[...] ↓		[...]ta			**§ 5.A.3**	A: i 8	
[...] ↓		[...]			**§ 5.A.4**	A: i 9	
		Razama	12/vii	1 night ↑	**§ 5.A.5**	A: iv 11'	
		Tanasapi	11/vii	1 night ↑	**§ 5.A.6**	A: iv 10'	
		Iplah	10/vii	1 night ↑	**§ 5.A.7**	A: iv 9'	
		Haphappi	9/vii	1 night ↑	**§ 5.A.8**	A: iv 8'	
⌜11⌝ nights ↓	4-14/i	**Babilim**	26/vi-8/ vii	13 nights ↑	**§ 5.B.1**	A: i 10 A: iv 7'	**Babylon (3)**
5 nights ↓	15-19/i	**Sippar-ṣerim**			**§ 5.B.2**		**T. Abu-Ḥabba (3)**
		Sippar	24-25/vi	2 nights ↑	**§ 5.B.2**	A: iv 6'	**T. Abu-Ḥabba (3)**
5 nights ↓	20-24/i	**Sippar-durim**			**§ 5.B.3**		**T. ed-Der (3)**
		Al-ka-mi-ni-ia	23/vi	1 night ↑	**§ 5.B.4**		
		Maqala	22/vi	1 night ↑	**§ 5.B.5**		
10 nights ↓	25/i-4/ii	**Dur-Apil-Sin**			**§ 5.C.1**	A: i 13; B: 5	
1 night ↓	5/ii	**Hibaritum**			**§ 5.C.2**	A: i 14; B: 6	
1 night ↓	6/ii	**Kar-Kakkulatim**			**§ 5.C.3**	A: i 15; B: 7	
1 night ↓	7/ii	**Kar-Šamaš**			**§ 5.C.4**	⌜A: i 16⌝ B: 8	
4 nights ↓	8-11/ii	**Mankisum**			**§ 5.C.5**	A: i 17-19 B: 9	*T. Kurr* **(1)**
1 night ↓	12/ii	**Hiššatum**			**§ 5.D.1**	A: i 20 B: 10	
1 night ↓	13/ii	**Pulukku**			**§ 5.D.2**	A: i 21 B: 11	
		Dur-[šar]ri(m)	21/vi	1 night ↑	**§ 5.D.3**	A: iv 3'	
1 night ↓	14/ii	**Yahappila**			**§ 5.D.4**	A: i 22 B: 12	
		Š[itullum]	20/vi	1 night ↑	**§ 5.D.5**	A: iv 2'	*Tekrit* **(1)**
1 night ↓	15/ii	**Marmenu**			**§ 5.D.6**	A: i 23 B: 13	
2 nights ↓	16-17/ii	**Suqaqu**			**§ 5.D.7**	A: i 24 B: 14	

Fig. 3: Synoptic compilation of all RTE stages.

Outbound night stops ↓	**Date** out-bound day/ month	**Stops**	**Date** inbound read up	**Inbound** ↑↑↑ read up ↑	**Comments** §	**Textual attestation**	**Identification** **Sure (3)** ***Probable* (2)** *Possible* **(1)**
1 night ↓	18/ii	**Aššur**			**§ 5.E.1**	A: i 27 B: 15	**Qal'at Sherqat (3)**
1 night ↓	19/ii	**Ekallatum**			**§ 5.E.2**	A: ⌜i 28⌝ B: 16	**T. Ḥuwaish (3)**
1 night ↓	20/ii	**Binanu**			**§ 5.E.3**	A: ⌜i 29⌝ B: 17	*Anonymous Tell (43.072093 / 35.831793)* **(1)**
1 night ↓	21/ii	**Saqa**			**§ 5.E.4**	A: [i 30] B: 18	
		[...]		[*9 nights broken*] ↑		ca. 7 - 9 lines in col. iv broken.	
		Kamilhu	11/vi	1 night ↑	**§ 5.E.5**	A: iii 33	***Nimrud* (2)**
		Adum	10/vi	1 night ↑	**§ 5.E.6**	A: iii 32 C: 10	
1 night ↓	22/ii	**Sanipa**	9/vi	1 night ↑	**§ 5.E.7**	A: [i 31] A: iii 31 B: 19 C: 9	***T. Khamira* (2)**
1 night ↓	23/ii	**Apqum-ša-Addu**			**§ 5.F.1**	A: ii 1 B: 20	**T. Abu Marya (3)**
1 night ↓	24/ii	**Kiškiš**			**§ 5.F.2**	A: ii 2 B: 21	
1 night ↓	25/ii	**Yapṭurum**			**§ 5.F.3**	A: ii 3 B: 22	*Tell Abṭa* **(1)**
		Marrata	8/vi	1 night ↑	**§ 5.F.4**	A: iii 30 C: 8	*Yarim Tepe* **(1)**
		Kalizit	7/vi	1 night ↑	**§ 5.F.5**	A: iii 29 C: 7	
		Lada	6/vi	1 night ↑	**§ 5.F.6**	A: iii 28 C: 6	
		Libbi-gerrum	5/vi	1 night ↑	**§ 5.F.7**	A: iii 27 C: 5	
1 night ↓	26/ii	**Tarhuš**	4/vi	1 night ↑	**§ 5.F.8**	A: ii 4; A: iii 26 B: 23 C: 4	*Tell Qoz* **(1)**
3 nights ↓	29/ii	**Šubat-Enlil**	25/v-3/vi	8 nights ↑	**§ 5.G.1**	A: ii 5 A: iii 25 B: 24 C: 3	**T. Leilan (3)**
		Harzi / Harrusi	24/v	1 night ↑	**§ 5.G.2**	A: iii 24 C: 2	
1 night ↓	1/iii	**Šuna**	28/iv-23/v	26 nights ↑	**§ 5.G.3**	A: ii 6; A: iii 23 B: 25 C: 1	*T. Mohammed Kabir* **(1)**
		Urkiš	27/iv	1 night ↑	**§ 5.G.4**	A: iii 22	**T. Mozan (3)**

Fig. 3 (continued): Synoptic compilation of all RTE stages.

Outbound night stops ↓	**Date** out-bound day/ month	**Stops**	**Date** inbound read up	**Inbound** ↑↑↑ read up ↑	**Comments** §	**Textual attestation**	**Identification** **Sure (3)** ***Probable* (2)** *Possible* **(1)**
3 nights ↓	2-4/iii	**Ašnakkum**	17-26/iv	10 nights ↑	**§ 5.H.1**	A: ii 7; A: iii 21 B: 26	**Chagar Bazar (3)**
1 night ↓	5/iii	**Alan**	16/iv	1 night ↑	**§ 5.H.2**	A: [ii 8] A: iii 20 B: 27	*T. Ailun* **(1)**
1 night ↓	6/iii	**Panahzu**			**§ 5.H.3**	A: [ii 9] B: 28	
1 night ↓	7/iii	**Mammagira**			**§ 5.H.4**	A: ii 13 B: 29	
		Masmenum	15/iv	1 night ↑	**§ 5.H.5**	A: iii 19	
		Buš›anum	14/iv	1 night ↑	**§ 5.H.6**	A: iii 18	
		Musilanu	13/iv	1 night ↑	**§ 5.H.7**	A: iii 17	
		Bakitanum	12/iv	1 night ↑	**§ 5.H.8**	A: iii 16	
		Kubšum	11/iv	1 night ↑	**§ 5.H.9**	A: iii 15	
		Tunda	10/iv	1 night ↑	**§ 5.H.10**	A: iii 14	
		Palda	9/iv	1 night ↑	**§ 5.H.11**	A: iii 13	
1 night ↓	8/iii	*libbi šād Hasam u Aba*			§ 5.H.12	A: ii 13-14 B: 30	Mountains
1 night ↓	9/iii	**Samu'e**			**§ 5.H.13**	A: [ii 15] B: 31	*Boztepe / Tepedibi* **(1)**
		Huburmeš	8/iv	1 night ↑	**§ 5.H.14**	A: iii 12	*Gölpinar* **(1)**
		Admum	7/iv	1 night ↑	**§ 5.H.15**	A: iii 11	***Urfa* (2)**
		Haziri	5-6/iv	2 nights ↑	**§ 5.H.16**	A: iii 10	***Sultantepe* (2)**
		Sarda	4/iv	1 night ↑	**§ 5.H.17**	A: iii 9	
1 night ↓	10/iii	**libbi Harran**	3/iv	1 night ↑	**§ 5.I.1**	A: iii 8 B: 32	**Harran (3)**
1 night ↓	11/iii	**Apqum-ša-Baliha**	2/iv	1 night ↑	**§ 5.I.2**	A: [ii 17] A: iii 7' B: 33	***'Ain al-Arus* (2)**
1 night ↓	12/iii	**Sahlala**			**§ 5.I.3**	B: 34	***T. Sala'n* (2)**
1 night ↓	13/iii	**Zalpah**	1/iv	1 night ↑	**§ 5.I.4**	A: iii 6 B: 35	***T. Hammam al-Turkuman* (2)**
1 night ↓	14/iii	**Ṣerda**			**§ 5.I.5**	B:36	***T. es-Sedda* (2)**
		Ahuna	29/iii	1 night ↑	**§ 5.I.6**	A: iii 5	***T. es-Semen* (2)**
2 nights ↓	15-16/iii	**Tuttul**	28/iii	1 night ↑	**§ 5.J.1**	A: iii 4 B: 37	**T. Bi'a (3)**
1 night ↓	17/iii	*ah Purattim*			**§ 5.J.3**	B: 38	Euphrates Riverbank
2 nights ↓	18-19/iii	**Abattum**	27/iii	1 night ↑	**§ 5.J.2**	A:iii 3 B: 39	**T. ath-Thadayain (3)**
1 night ↓	20/iii	*ah Purattim*	26/iii	1 night ↑	**§ 5.J.3**	A: iii 2 B: 40	Euphrates Riverbank
1 night ↓	21/iii	*ah Purattim*			**§ 5.J.3**	B: 41	Euphrates Riverbank
		[...]*attum*	25/iii	1 night ↑	**§ 5.J.4**	A: iii 1	?
2 nights ↓	22-23/iii	*a-ša-ar ba-ah-ra i-sí-hu*			**§ 5.J.5**	B: 42-43	Place, where they assigned elite troops
1 night ↓	24/iii	**Imar libbum**			**§ 5.J.6**	B: 44	**Meskene (3)**

Fig. 3 (continued): Synoptic compilation of all RTE stages.

that may be important for identification (importance and size; city wall; citadel for palace or temple; proximity to certain favourable factors such as water bodies, raw materials, etc.) are matched with the features known archaeologically or evident from aerial photographs.

- Where possible, ancient routes are traced in the form of hollow ways. For one of the routes the Least Cost Path was calculated, but we critically questioned the result (see § 5.H).
- If all these methods result in a clear candidate, this is presented here as an identification proposal. If there are a number of possibilities, this is also noted; on the map, instead of a point, the approximate localisation is shown graphically as a circle with a 5 km radius.

4. The whole trip in one glance

4.1 The whole itinerary on the map

The entire route is as shown in Fig. 2, where the outbound and return routes are partly identical, but partly different. We have divided the whole area into 10 segments, which we deal with separately in § 5. Each individual stage is arranged as geographically as possible within the segments[34], discussed and numbered with § 5.A.x – 5.J.y. Thus, it is possible to make cross-references between the different paragraphs.

4.2 Synoptic compilation of the stages

The synoptic compilation is inspired by the helpful Fig. 4 of Hallo 1964: 65. For differences, see the notes on texts **A**, **B** and **C** below. The spellings of the ancient toponyms are without indications of lengthenings and are reproduced in a standardised form (see above § 2.7). For the modern identifications, simplified spellings were also used, T. = Tell, Tall.

The dates correspond to the reconstruction of W. W. Hallo and are given by day/month. For the unknown year setting see above § 2.6. For the stops, see comments below in the section indicated by § 5. The identifications with archeological sites are dicussed there, but we wish to give an indication of the certainty of identifications by numbering, as explained in MTT I : (**3**) identification is sure, (**2**) is probable, (**1**) is possible.

5.A The stages between Larsa and Babylon[35]

Outbound trip from Larsa to Babylon	Comment on toponym	Return trip from Babylon to Larsa
Babilim	§ 5.B.1	Babilim ↓
	§ 5.A.8	Haphappi ↓
	§ 5.A.7	Iplah ↓
	§ 5.A.6	Tanasapi ↓
	§ 5.A.5	Razama ↓
[...] ↑		
[...]ta ↑		
[...]ni ↑		
[...] ↑		
[...] ↑		
Rahabum ↑	§ 5.A.4	
[...]ahi ↑	§ 5.A.3	
Al-ahumma ↑	§ 5.A.2	
?	§ 5.A.1	Larsa
Outbound trip (to be read from bottom to top)	§ 5.A	Return trip (to be read from top to bottom)

Table to § 5.A : Overview of the stages between Larsa and Babylon.
The arrangement of the toponyms roughly follows the north-south orientation of the stages, north as on the maps above, south below. The outward journey is to be read from bottom to top.

The outward and return trip between Larsa and Babylon are the most badly preserved parts of the journey. Text A, which is the only one to contain the first stages of the outbound trip, is partly broken off for the first lines, while the return stages are legible but cannot be located. It can be assumed that this part of the journey, like the route in segment § 5.B, was covered by boat. In this sense, W. W. Hallo also wrote[36]:

> "After a layover of two days at Sippar, and of thirteen days at Babilim, the journey was concluded at the same high speed attested below Mankisum. In fact, the nearly 240 airline km between Abu Habba and Senkereh were covered in six travel-days, i.e., at approximately 40 airline km/day. No doubt, then, this leg too proceeded by boat."

34 The problem is that the outward and return journey partly chose different stages, but the rough course was partly similar. We have tried to respect this circumstance in the arrangement.

35 The archaeology of the trip between Larsa and Aššur was studied by Christoph Fink. Adelheid Otto concentrated on the RTE segment between Aššur and Imar.

36 Hallo 1964: 84a. See also Cole & Gasche 1998: 20 and di Filippo 2016: 454, 465.

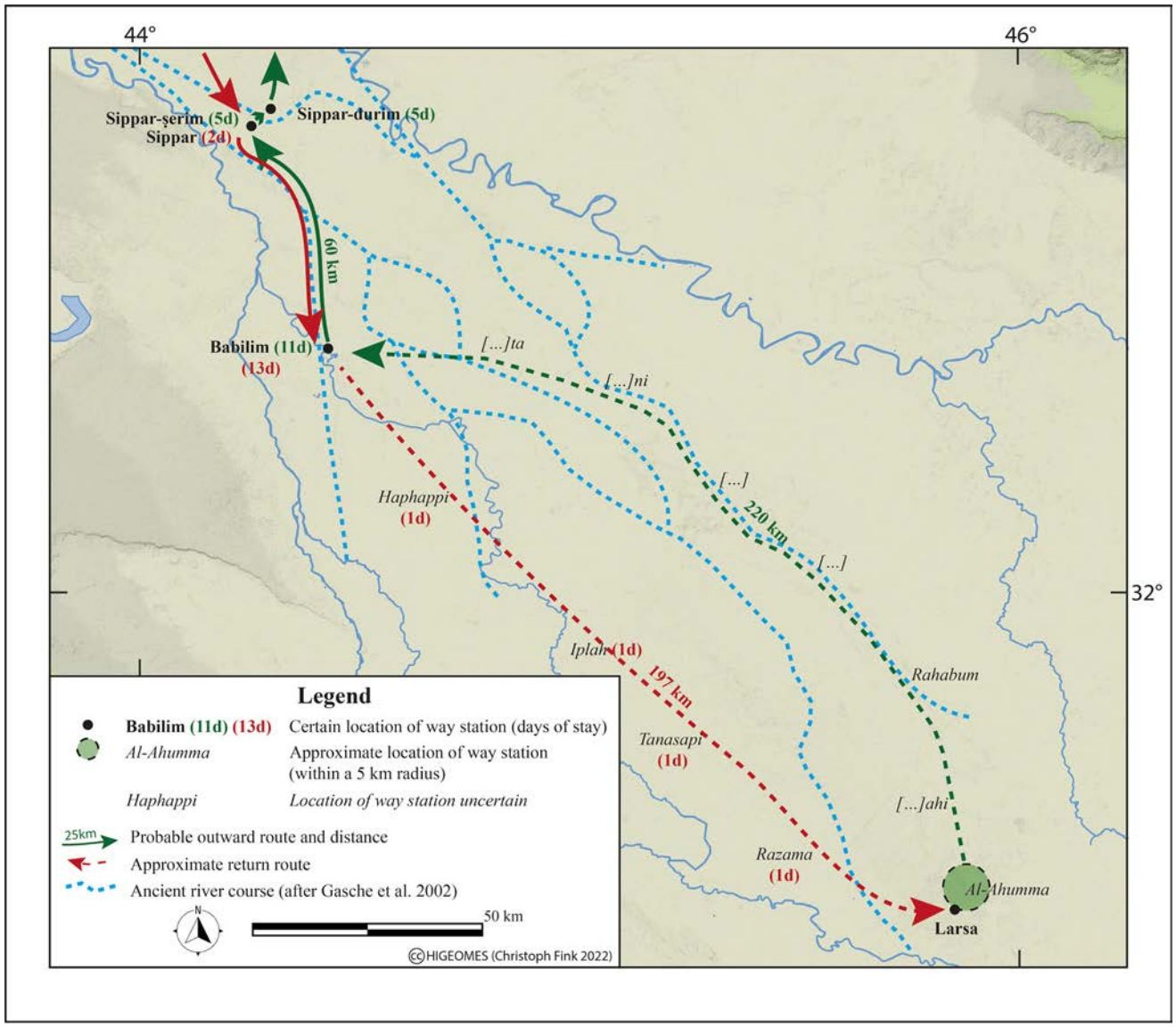

Fig. 4: The stages between Larsa and Sippar. Sections § 5.A and § 5.B.

5.A.1 Larsa = T. Senkereh

The travelling party set out from the area of Larsa and returned there. Text A : iv 12'-14' sums this up with the words:

"1 day Larsa.
Total: 6 months 14 days – my departure until my return."

Even if this summary reinforces the impression that the journey started directly from Larsa, it is legitimate to ask whether the starting point was actually Larsa. Text A is not preserved for this passage, and text B sums up the first weeks and stations of the outward journey to Dur-Apil-Sin with an elliptical formulation that is furthermore grammatically difficult to explain[37] (Text B: 1-5):

"ZAG (date) EN.NA (date) ŠU.NIGIN$_2$ (duration) *iš-tu* (placename) *i-na* (placename) *ni-is-sú-hu-ú*°"
"From (date) until (date) – a total of 1 month and 8 days – is, what we made/spent from Al-ahumma to Dur-Apil-Sin."

37 Already Stol 1976: 40 n. 20 struggled with the problem caused by the verb *ni-is-su-hu*: "Without resorting to an emendation, I cannot explain the subjonctive in line 5 : read <*iš-tu*> at the beginning of line 5. Translation of 4-5: 'From Aḫumma: <after> we had departed from Dūr-Apilsin, (the route was as follows:)'."

This gives the impression that Al-Ahumma (or Ahumma, § 5.A.2) was the point of departure and not Larsa[38]. The restoration of this toponym in text A [UIOM 2134]: 2 is possible. See on the little-known place below.

5.A.2 Al-Ahumma (or Ahumma)

The reading of line B: 4 (URU$^{ki!}$-*a-hu-um-ma*) is difficult, but it is the reason to restore the toponym in A: i 3 ([URU^{ki}-*a*]-*hu*$^{!}$-*ma*) – both follow the proposal of M. Stol[39]. W. W. Hallo[40] suggested the reading [U_4 1.KAM *Za-ra-a*]*r-ma* – see his explanations in the quote below (§ 5.A.3).

An inheritance deed, YOS 5 106, mentions Al-Ahumma as well as Rahabum (cf. § 5.A.4), Waqartum and Larsa (§ 5.A.1). A trial, YOS 15 80, dated to Hammurabi's year 35 shows the proximity between Al-Ahumma and Al-Paharum. Presumably all these places were relatively close to each other. Otherwise nothing is known about Al-Ahumma or Ahumma.[41]

5.A.3 […]ahi

A. Goetze[42] restored in text A: i 3 [*waraḫ … ūmam*] x-*kam* explained in n. e "This is the only restoration that I could think of." W. W. Hallo restored in A: i 3 the toponym [KAR].ˀKIˀ; in col. i 2 he had proposed [*za-ra-a*]*r-ma*. He commented on both *ibidem*:[43]

> "The restoration (…) of A i 2-3 (is based) on the so-called 'Dream-book itinerary,' where KAR.KI is glossed *sar-ra-ár*. Since this entry appears to be at or near the starting point of a northbound trip, it may be tentatively proposed that a location in southernmost Babylonia, i.e. near Larsa, is implied. This might account for the uniquely attested gloss to the name of Larsa which is usually read [*Z*]*a-ra-ar-ma*; (…) One might suppose that the name of Sarar(ma) was variously applied to the 'port' of Larsa, to the city itself, or to a locale in between, as here. Needless to say, little certainty is claimed for the restoration of these lines (…)"

We have not adopted either suggestion. Zarrar-ma is not attested in Old Babylonian. KAR^{ki} is only attested as an ideogram for kārum "merchant's quai/quarter". Apart from that, the reading KI is not very likely with the autography of A. Goetze, he himself had read KAM.

5.A.4 Rahabum

Rahabum, the only securely legible toponym on the outward route between Larsa and Babylon,[44] was a relatively important town in the vicinity of Zabalam (Tell Ibzaih), two stations after Al-Ahumma (§ 5.A.2). Hints to the trading activities in Rahabum – evidenced by a *kārum* quarter and merchants – have been collected by M. Stol.[45] Rahabum was situated on a canal.[46] R. de Boer asks whether texts from private collections published in CUSAS 36 could have originated from Rahabum.[47]

An inheritance deed, YOS 5 106, mentions possessions in Al-Ahumma (§ 5.A.2) and Rahabum as well as in Waqartum and Larsa (§ 5.A.1) – all these places were probably in relative proximity to each other.[48]

5.A.5 Razama

There were at least three places called Razama[49] in Old Babylonian times, two were in Upper Mesopotamia,[50] this Razama mentioned here lay in the territory of Larsa. B. Groneberg had already distinguished this correctly and noted that:[51]

> "R. [2] wird im aB Itinerar drei Stationen nach Babylon und eine Station vor Larsa erwähnt. Dieses R. liegt wohl in den beiden aus Larsa stammenden Texten TCL 11, 250 und AbB 4, 118 vor."

38 Goetze 1953: 64 raised the issue but suspected that Larsa was both the point of departure and arrival.

39 Goetze 1953: 51 restored differently.

40 Hallo 1964: 64a.

41 Cf. Groneberg 1980: 6 *s.v.* Aḫumma.

42 Goetze 1953: 51.

43 Hallo 1964: 64.

44 The writing in A: i 4 is [*ra-ḫ*]*a-bu-um*. This has already been suggested by Hallo 1964: 64. A. Goetze tentatively restored the year name Samsu-iluna 28 and read *ia-di-ḫ*]*a-bu-um*. This has to be abandoned.

45 Stol 2006-2008: 231.

46 The Old Babylonian dept note published by M. Streck, www.archibab.fr/T18628, mentions canal works, the letter AbB 8 146 a boat.

47 De Boer 2019: 244b.

48 D. Charpin has asked during a colloquium on Old Babylonian archives in Paris (May 2023) whether Rahabum could be identified with Tell Helib in the south of Umma, see on this site Adams 1965: 144 sites 213-214. See also the revised map in Steinkeller 2001: 40 (Tell no. 213). Archaeological work is needed before this assumption can be confirmed.

49 D. Charpin (2003) described this phenomenon as "toponymie en miroir". Charpin 2003: 27 deals with the three different tomonyms Razama.

50 Ziegler & Langlois 2016: 286-289.

51 Groneberg 1980: 197. Shortly Goetze 1953: 64.

To the known attestations we can add CUSAS 36 177: 22, CUSAS 36 194: 6 as well as APM 6435[52]: 11. In the latter Razama is mentioned besides Harharri.

5.A.6 Tanasapi

We don't have any parallels for this place name. A. Goetze read Šanasapi[53]. In comparison with A: iii 16 (autography) we prefer for the time being the reading TA[54].

5.A.7 Iplah

Iplah (A: iv 9' *ip-la-ah*) is a well attested place, but nothing can be said about its exact location.[55] Nuns from Sippar owned or bought land there[56], and in a lawsuit concerning a slave, the judges from Babylon and Borsippa questioned the elders from Iplah.[57] The vindication was dismissed with an oath to Šamaš, Marduk, Hammurabi and the city of Sippar. Most of the evidence thus points to the greater area of Sippar, although Iplah must be sought two stations downriver from Babylon on the way to Larsa. Is this another case of homonymy? An early Babylonian document from Isin names the place Ipla (*ip-la*^{ki})[58], which is probably identical with our stage of the RTE.

5.A.8 Haphappi

A place named Haphap is otherwise only attested in the archives of Alammuš-naṣir, who dwelt in the area of Kiš, in Damrum.[59] Text A3533[60] mentions the garden of Haphap as a source of boxwood. Haphap was probably a rather insignificant centre with agricultural activities.

52 For this document published by W. van Soldt & M. Stol see www.archibab.fr/T18646.

53 Goetze 1953: 55, 64b.

54 The sign ŠA is written with horizontal wedges in A: i 20, ii 1 and iii 7.

55 Cf. Groneberg 1980: 65-66 *s.v.* Eblaḫ for attestations. See Goetze 1953: 64.

56 CT 2 15, CT 47 4 and TCL 1 187.

57 VS 13 32.

58 BIN 9 417: 2: *ip-la*^{ki}.

59 D. Charpin prepares the publication of this archive, see Charpin (to be published). An overview has already appeared: Charpin 2006-2007.

60 Stuneck 1927: 6-7, see on the CDLI website P512746. This document will be reedited by Charpin (to be published).

5.B From Babylon to Sippar and the Steppe North of Sippar

Return trip (from the north-western steppe to the south)	Comment on toponym	Outbound trip from the south to the northeast
	§ 5.C.1	Dur-Apil-Sin
Maqala ↓	§ 5.B.5	
Al-ka-mi-ni-ia ↓	§ 5.B.4	
	§ 5.B.3	Sippar-durim ↑
Sippar ↓	§ 5.B.2	
		Sippar-ṣerim ↑
Babilim ↓	§ 5.B.1	Babilim ↑
Return trip (to be read from top to bottom)	§ 5.B	Outbound trip (to be read from bottom to top)

Table to § 5.B : Overview of the stages from Babylon to the north.
The arrangement of the toponyms roughly follows the geographical orientation on modern maps. North as on the maps above, south below, west left, east right. For this reason, the more easterly outbound journey from Babilim to Dur-Apil-Sin is in the right-hand column and must be read from bottom to top.

On the outbound journey, the travelling party stopped in Babylon for 11 days and in the two Sippars for 10 days, a total of more than 21 days; on the way back, they stayed in Babylon again for almost two weeks. The travellers were in the centre of the Babylonian empire and had to or wanted to spend considerable time there.

The route taken by the travelling party on the outward journey in northern Babylonia has been studied in 1998 by Steven Cole and Hermann Gasche. It is particularly astonishing that the way between Babylon and Sippar-ṣerim (Tell Abu-Ḥabba), 61 km as the crow flies, had been covered in a single day. The group of travellers probably used the branch of the Euphrates known as the Arahtum, the course of which changed towards the end of Hammurabi's reign[61]. The travellers were probably once again—like after the departure from Larsa and then as far as Mankisum—on their way by boat or ship.

On the way back, they seem to have made a shortcut through the steppe, which enabled the travellers to reach Sippar directly from the north from Šitullum, i.e. the area of today's Tekrit on the Tigris (see §§ 5.B.4 and 5.B.5). The travel group seemed to have been driven by a great haste, after all the time lost in the Habur region. The stops they made on the return journey are partly not documented in

61 Cole & Gasche 1998: 26-27.

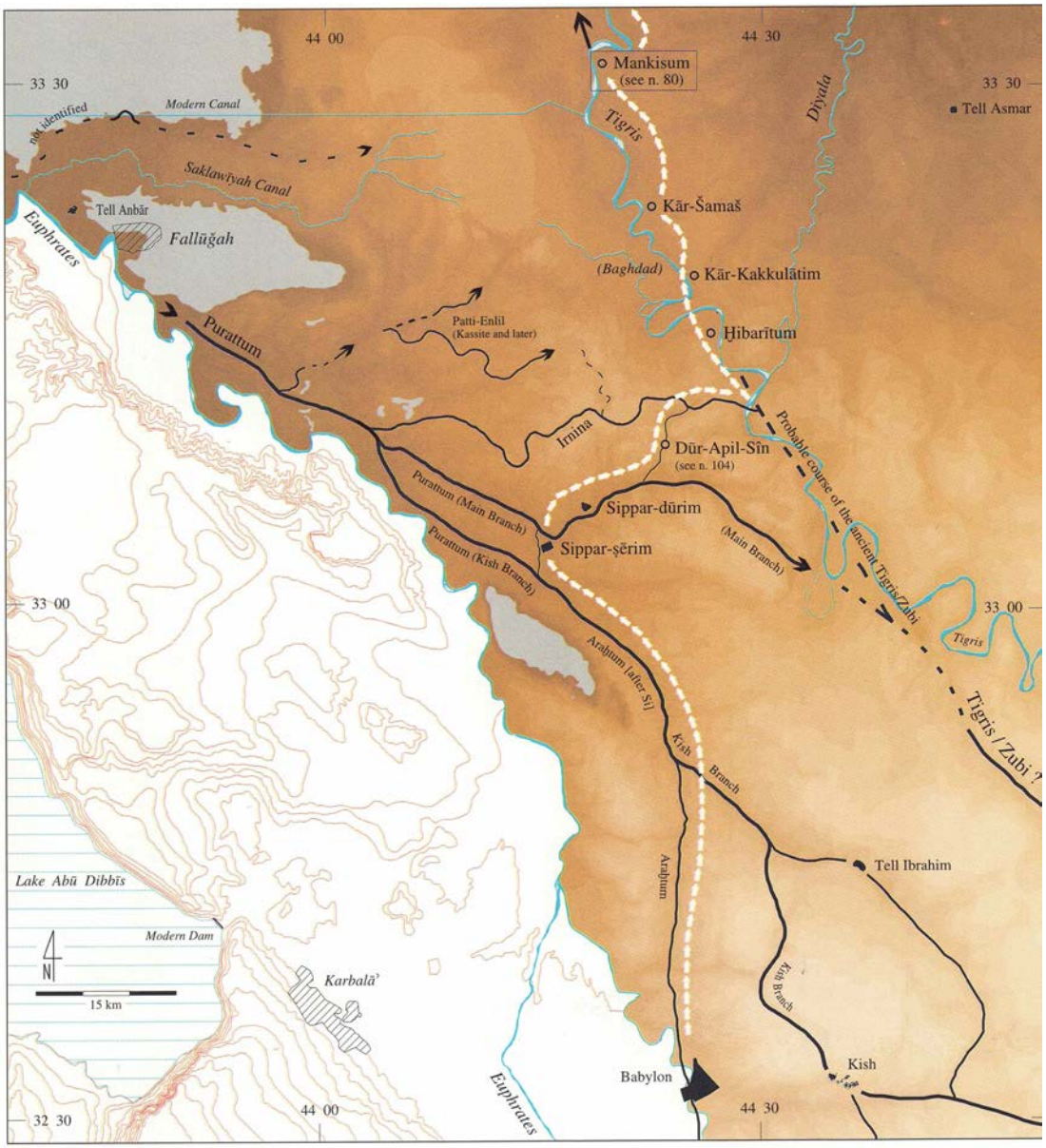

Fig. 5: The part of the journey from Babylon to Mankisum (the latter could no more be recorded on the map) in the reconstruction by Cole & Gasche 1998: 46 "Map 6".

the texts, and were probably small deserted villages in the steppe area.

5.B.1 Babilim = Babylon

On the outbound journey, the travelling party stopped in Babylon for 11 days; on the way back, there was another stay of almost two weeks. The visit to the capital was obviously important to the travellers. It is unknown whether on the outward trip this was due to the fact that the travelling party wanted to cross foreign territories and needed special permits for this. And on the way back, they probably had to report what they had experienced abroad.[62] It cannot be ruled out that the stay was mainly of a logistical nature. Perhaps they were waiting for a good opportunity to continue their journey by water?

Babylon was undoubtedly a transhipment point for trade travellers up and down the river. The time spent in the capital could therefore also have been devoted to pro-

62 This was already suggested by Goetze 1953: 64b: "The stay of two days in Sippar and of 13 days in Babylon are, we can assume, not so much for rest as for reporting and perhaps the discharge of the troops."

curing or purchasing goods, and taxes could have been incurred on imported goods on the return journey. It cannot be ruled out that the goods on the way back were inspected by palace officials, as the royal palace probably had a right of preemption.

5.B.2 Sippar-ṣerim, Sippar = Tell Abu-Ḥabba

For the identification of the various Sippars, we refer to Charpin 1988. Sippar *ṣērim*[63] "Sippar-of-the-Steppe" can be identified with Tell Abu-Ḥabba, the place of worship of Šamaš and the "cloister" of the *nadītum* nuns dedicated to him. On the way out, the travelling party spent 5 days there. For the way back, "Sippar" alone is mentioned, probably meaning the same Sippar = Tell Abu-Ḥabba. The stay on the way back was shorter and lasted only for two days.

5.B.3 Sippar-durim = Tell ed-Der

For *Sippar-dūrim* "Sippar of the wall" see Charpin 1988: 15. Text A is the only attestation of that name. *Sippar-durim* must be identified with *Sippar-Amnanum*, nowaday's Tell ed-Der. The travel group spent 5 days there on the outward journey, as it did in Sippar-ṣerim (§ 5.B.2). On the return journey, they probably did not stop in Tell ed-Der.

5.B.4 Al-ka-mi-ni-ia

The reading of the toponym is as questionable today as it was when the text was first published. A. Goetze commented on it thus[64]:

> "AL KA$^{?}$.MI.NI-a: The reading of the name is problematic; however, one would prefer, in an Old Babylonian name, to read the combination MI.NI-a as *ṣilli*^{li}-a."

There is currently no comparison for toponyms ending in *-ṣilliya*.

However the ancient name must be read, it was certainly a steppe village between Sippar and the depression of the Tharthar, Umm-Rahal[65], on the south-eastern side of which Maqala (see below § 5.B.5) can be sought.

63 Charpin 1988: 14-15.

64 Goetze 1953: 64b.

65 On this depression in antiquity cf. Joannès 1993, from whom we have also taken the name Umm-Rahal. Today's huge salt lake is due to engineering work in the mid-20th century AD.

5.B.5 Maqala

Maqala was probably a lookout post in the desert steppe, as its etymology suggests.[66] The place is attested in a letter from Mari,[67] in which it is mentioned as stage of Išme-Dagan between Babylon and Ekallatum and apparently had the function of a border post of the kingdom of Ekallatum. It can be searched for about 60-80 km to the north-east of Tell Abu-Ḥabba. A location in the south-east of the present Tharthar salt lake, i.e. at the depression of Umm-Rahal can be assumed.[68]

5.C The Outbound Trip from Dur-Apil-Sin to Mankisum

Outbound trip from Dur-Apil-Sin to Mankisum	Comment on toponym
Mankisum	§ 5.C.5
Kar-Šamaš ↑	§ 5.C.4
Kar-Kakkulatim ↑	§ 5.C.3
Hibaritum ↑	§ 5.C.2
Dur-Apil-Sin ↑	§ 5.C.1
Outbound trip (to be read from bottom to top)	§ 5.C

Table to § 5.C: Overview of the stages from Dur-Apil-Sin to Mankisum.
The order of the toponyms in the table roughly follows the geographical position of the stages. North as on a modern map above, south below.

The stages of the outbound trip from Sippar apparently have nothing in common with the course of the return journey. The latter seems to have been via a shortcut through the steppe, which enabled the travellers to reach Sippar directly from the north. See above §§ 5.B.4 and 5.B.5.

The outward route, on the other hand, which brought the travellers by water from Sippar to Mankisum, can be reconstructed reasonably well. S. W. Cole and H. Gasche (1998) thoroughly investigated this part of the RTE and also published a map (see Fig. 5).

66 Maqala is a possible derivation from *qâlum* "to spy" and could mean "observation post". For placenames which trace their names back to their function as guard posts see Ziegler & Cancik-Kirschbaum 2017: 33.

67 The bibliography on letter A.649 published by D. Charpin & J.-M. Durand as well as the transcription and translation are accessible in www.archibab.fr/T21538.

68 On the position, see in detail Ziegler 2002: 243 and the map on p. 238. See the summary of the discussions in Ziegler & Langlois 2016: 215.

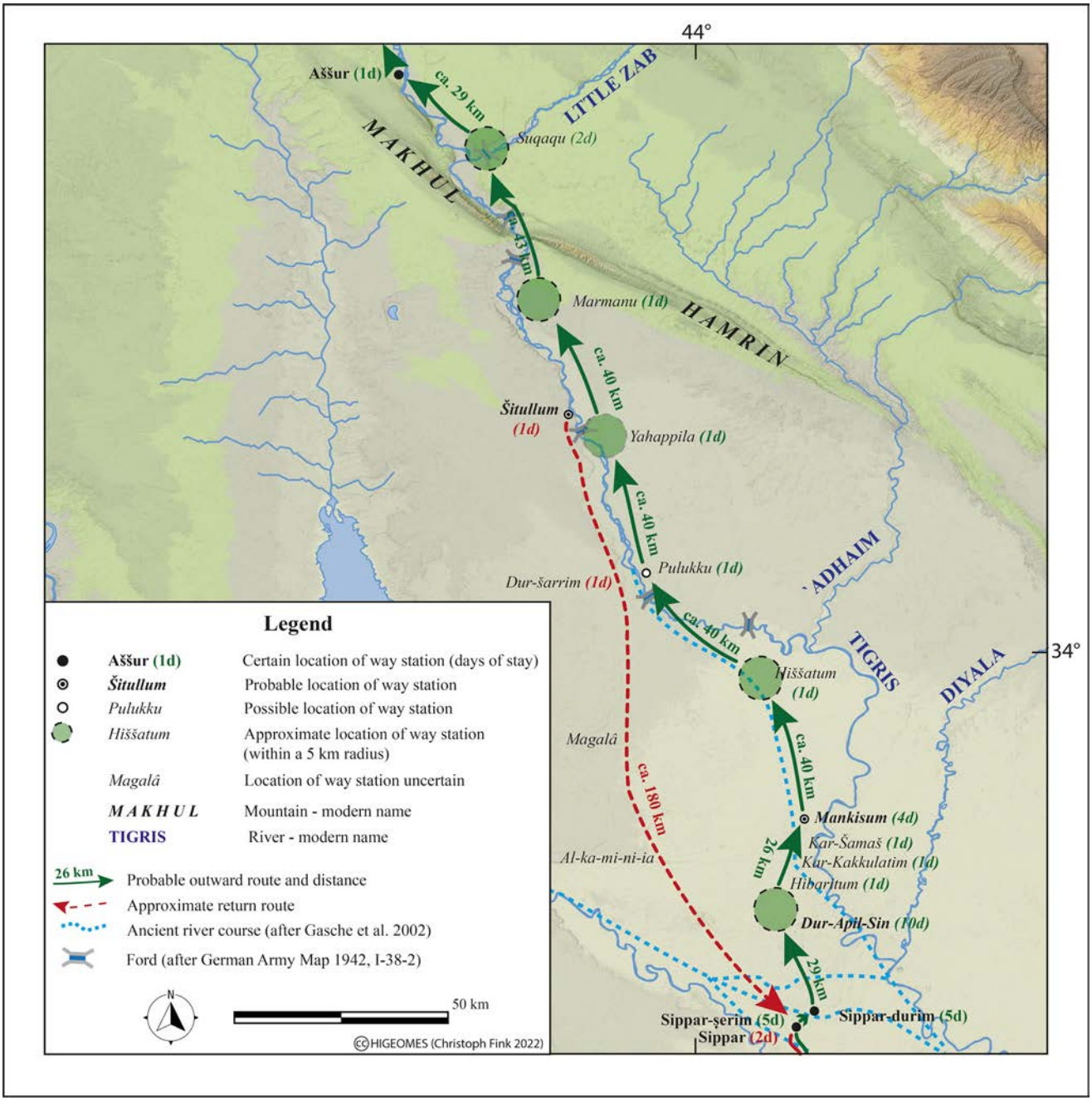

Fig. 6: The stages between Sippar and Aššur. Sections C and D of the RTE.

5.C.1 Dur-Apil-Sin

The fortress that the Babylonian king Apil-Sin built against his eastern neighbours was perhaps located on the then boundary of his empire.[69] Dur-Apil-Sin lay on a canal and must be considered a day's journey, i.e. an average of 25-30 km, from Sippar. The connection between Sippar and Dur-Apil-Sin is also expressed in two Old Babylonian letters, while a sale contract establishes a connection between Kar-Šamaš (see below § 5.C.3) and Dur-Apil-Sin[70].

W. W. Hallo had devoted a lengthy commentary to the fortress, suggesting that it would have been located on the

69 Forteresses called *dūr*+king's name were generally established close to the border of the realm by the named ruler, see Joannès 1996: 336 fn. 55. See Charpin 2004: 157: Daduša defines his forteress Dur-Daduša as *āl pāṭiya* "the city on my border".

70 Letters AbB 14 87 and 93. VS 18 17 cf. Charpin 2005: 136-137.

Irnina Canal, perhaps in Aqar-Quf, the Kassite Dur-Kurigalzu[71]. Even if the latter hypothesis is no longer accepted today, it has not yet been possible to make an archaeologically substantiated proposal for localisation. The informations have been compiled by S. W. Cole and H. Gasche.[72] See for their hypothetical localisation of the fortress their map (reproduced above Fig. 5).

The travelling party stayed in Dur-Apil-Sin for 10 days. This was, together with the 4 days in Mankisum, the last longer stay before setting off for Upper Mesopotamia.

5.C.2 Hibaritum

The documenary evidence concerning Hibaritum has been gathered by S. W. Cole and H. Gasche[73]. W. W. Hallo also wrote a detailed commentary[74]. The place is mentioned in the so-called cadaster of Urnammu[75] and, according to Middle Babylonian sources, was located on the Zubi canal. In texts of that time, the place is mentioned with another toponym, which may be read Kakkulatum (s. § 5.C.3).

5.C.3 Kar-Kakkulatim, the harbour district of Kakkulatum

Kakkulatum[76], probably in the urban area of today's Baghdad, lay on the Tigris[77]. It was the point, where the river could easily be crossed. At the time of the Elamite invasion of Hammurabi's Babylonia in 1766 BC, the city was fiercely disputed, and even destroyed[78].

The fact that the travellers of the RTE, who, as we assume, passed through the area perhaps a decade after this Elamite invasion, only mention the "trading quarter of Kakkulatum"[79] could indicate that the city as such had not yet been resurrected, but that it continued to serve the logistics of the merchants. Kar-Kakkulatim could therefore represent a toponym in its own right, the pitiful remnant of a formerly strategically important locality.[80]

When and whether the city was revived is unclear. Evidence from the late Old Babylonian period seems to be lacking. In the Kassite period, the place could have been named with the sumerogram ^{uru}GAKKUL^{ki}.[81] F. R. Kraus also translitterated this toponym with ^{uru}MUN^{ki} and suggested that this sumerogram could be interpreted as a reference to an ancient salt production. He connected this circumstance with Hibaritum (see above § 5.C.2) for which he believed to have found a localisation clue.[82]

5.C.4 Kar-Šamaš

Two[83], perhaps even three[84] cities Kar-Šamaš[85] are attested by Old Babylonian evidence. The first, Kar-Šamaš (1), was close to Ur, the second lay on the Tigris. All are well attested in the documentation.

W. W. Hallo commented on the toponym and pointed out the philological and historical difficulties:[86]

> "The next station is again a quai or wharf (*kāru*), apparently named for the Sungod. The absence of the divine determinative is troublesome, though not more so than in the analogous Sumerian geographical name Ki-^{d}Utu which is sometimes spelled Ki-UTU.KI. Gadd [UET I, p. 31] notes two places called Kar-Šamaš in Old Babylonian times, one on the Euphrates commemorated in Ammiditana's elev-

71 Hallo 1964: 67. See also Goetze 1953: 55. Gasche & Cole 1998 do not follow the suggestion of locating Dur-Apil-Sin in Aqar-Quf.

72 Cole & Gasche 1998: 20, 22 fn. 104 and 46 (map).

73 Cole & Gasche 1998: 17, 19-20.

74 Hallo 1964: 68. Goetze 1953: 56a draws on texts from the Kassite period.

75 Kraus 1955. See the reedition of this text by Frayne 1997: 50-56, no. 21.

76 Röllig 1976-1980.

77 The maps of Cole & Gasche 1998: 46-47 (see our Fig. 5 above) list the site on the east side. The detailed commentary Cole & Gasche 1998: 20-21 does not mention a river side. W. W. Hallo and A. Goetze had voted for a location more to the west. Goetze 1953: 56 "probably on the western bank", and Hallo 1964: 68 "the itinerary clearly places the site west of the Tigris at about the latitude of Sumeiki Station, i.e. at some distance from Ešnunna and the heart of the Diyala valley perhaps not as far west of the river as now."

Klengel 1961 argumentation in favour of the eastern bank is based on a misinterpretation of ARM 4 21: 8, which does not mention the place Kakkulatum as the conquest of the Turukkeans, but simply "salt" written with the word sign GAKKUL.

78 Lacambre 1997, see the map of troop movements in Cole & Gasche 1998: 47. The destruction is mentioned in ARM 27 145.

79 See § 2.7. The name is spelled in text B: 7 *kar-ka-ku-la-ti*, and in A: i 15 it is restored. Most attestations mark the final mimation.

80 Several year names of Old Babylonian kings mention the place, see references in Groneberg 1980: 129 and the comment by Röllig 1976-1980.

81 Nashef 1982: 267 ranges this place name *s.v.* Ṭābtu, a reading of the sumerogram GAKKUL "salt", which also inspired F. R. Kraus' comment.

82 Kraus 1955: 63 suggests a localisation of Akšak and Hibaritum on the Tigris, near Telomer, the Tell 'Umair" of Kiepert's map, 26 km east of T. Abu-Ḥabba, since an industrial saltpetre factory was nearby.

83 Cf. Röllig 1976-1980. For Kar-Šamaš near Ur see Fiette 2017.

84 Perhaps three cities, if JCSSS 2 17: 15 KAR.^{d}UTU^{ki} *ša** GÚ* ^{i}UD. KIB.NUN.NA* mentions a Kar-Šamaš on the Euphrates. This could be the Kar-Šamaš mentioned together with Sippar.

85 See above § 2.7. The unusual way to write the divine name Šamaš without the divine classifyer in this place name must be emphasised. Text A: i 16 and B: 8 : *kar*-UTU.

86 Hallo 1964: 68b.

enth year, and one on the Tigris commemorated by Hammurapi in his forty-second year. The former was probably not far from Babylon, for a forteress by this name was already built by Sabum. It was a port of transshipment for Sippar and thus may well have been the point where the canal route to the Euphrates left the Tigris. In the geographical name list from Larsa [Jean RA 32, 1935, 166 vi 43. Cf. now also CT XLIV 47 iii], Kar-Šamaš is the last preserved entry before the river names; it follows almost immediately after Hiritum and *Hi-ba*[i]*-ri-tum*, both of which are located on the water route between Sippar and Mankisum, the former on the Irnina canal, the latter on the Izubitum."

We cannot follow W. W. Hallo's conclusion on the geographical location of Kar-Šamaš, as it is set much too far north. He concluded:[87]

"All these indications accord well with the proposed reading and location of the great bend of the Tigris, some 20-25 km upstream from the confluence of the Adhem, about the point where the later 'Median Wall' met the river."

The localisation of the toponym as proposed by S. W. Cole and H. Gasche seems more convincing to us:[88]

"situated north of Baghdad, along a stretch of the Tigris channel that was prone to shifting"

and in a more detailed footnote, they wrote[89]:

"A date formula of Apil-Sin states that the king returned the bed of the Tigris to its former location (Al Rawi 1993, 24: 16' : mu gú íd.idigna ki-bi-šè bí-in-gi$_4$-a); the formula is a variant of the one mentioning Kār-Šamaš (ibid., 28)."

VS 18 17 is a land purchase contract according to which the mayor of Kar-Šamaš sold land. Among other things, the text mentions work in Dur-Apil-Sin—an identification with the Kar-Šamaš of the RTE seems certain. Also, Kar-Šamaš and Puš, which is probably near the confluence of the Irnina and Zubi canals,[90] are also mentioned together in at least two texts.[91] If the place Kar-Šamaš, which is mentioned together with Hiritum[92], Kiš[93] or Sippar[94], is the same place, or a third Kar-Šamaš, cannot be solved here.

5.C.5 Mankisum, perhaps Tell Kurr (Hig. No. 726, certainty 1)

Mankisum[95], which, according to a suggestion by S. W. Cole and H. Gasche, can be identified with Tell Kurr (Hig. No. 726) on the east bank of a former course of the Tigris ("River Course B"), was the terminus of the journey by water. Apparently, the travelling party had to change here to a donkey caravan before continuing northwards. This action—transferring goods from boats or ships to donkeys, assembling the caravan and probably its escort, and sending back the boats as well as the trekkers—caused a stay of four days in Mankisum. The author of the RTE notes this in the text A: i 17-19:

"4 days Mankisum, when the men have been relea[sed]/ ga[thered] and the boats returned."

Perhaps the people who were relieved of their duties, who were relea[sed], or "demobi[lised]" if we read *ip-p*[*aṭ-ru*], were trekkers? Mankisum was a natural or political border for the travellers.

Possibly Mankisum was at this time on the north-eastern boundary of the kingdom of Babylon, which was, as we assume, under the beginning rule of Samsu-iluna. The question arises because the changes of escorts and caravans often seem to have taken place in border towns, as the Mari documentation shows particularly clearly.

W. W. Hallo located Mankisum "immediately north of present day Samarra, on the Tigris"[96]. Several researchers followed this suggestion[97] although A. Goetze vehemently opposed such a northern localisation.[98] Goetze was certainly right: Mankisum was later identified by S. W. Cole and H. Gasche with good reason with Tell Kurr on an ancient course of the Tigris, even if direct archaeological evidence is lacking. Before its integration into the kingdom of Babylon, the city was mostly a bridgehead of Ešnunna in regions west of the Tigris. It was fought over several times for this reason. N. Ziegler devoted a lengthy

87 Hallo 1964: 68b.
88 Cole & Gasche 1998: 21 and 46, map.
89 Cole & Gasche 1998: 21 fn. 94.
90 Cole & Gasche 1998: 17.
91 CUSAS 36 209 mentions the transportation of grain from Puš to Kar-Šamaš; BE 6/2 136 mentions the transport of beer mugs from Kar-Šamaš, Puš and other places.
92 JCSSS 2 17.
93 AbB 2 153.
94 AbB 2 72 (a merchant from Sippar who stayed in Kar-Šamaš should pay his natural taxes in Sippar); AbB 7 110; AbB 12 172 ; AbB 14 54 ; YOS 13 490, and probably also the text published by De Graef 2018 n°12 (see www.archibab.fr/T23226) as well as YOS 12 537; YOS 12 556.
95 Interestingly, the toponym is written differently in texts A and B: A: i 17 *ma-ki-su*[*m*] with assimilation of N; B: 9 *ma-an-ki-sí* without mimation.
96 Hallo 1964: 69a.
97 See literature in Ziegler 2002: 246.
98 Goetze 1964: 115-116 bases his argumentation on the geopolitical analysis of, above all, the Mari documentation, as well as a text from Tell Harmal. He seeks Mankisum "not too far north of present day Baghdad" and concludes with the words "To sum up I think that a position as far north as Sāmarrā is out of the question".

commentary to the geopolitical situation of this city and collected references to the various written sources on the site. She summed up the state of knowledge thus[99]:

> "Mankisum was an important city, situated on a ford. It had a trading post (*kārum*), an important harbour where ships from the kingdom of Ekallatum could dock, although river navigation seems to have been limited to exceptional grain transports, and people moved on foot, notably in caravans."

5.D From Mankisum to Aššur

Outbound trip from south to north	Comment on toponym	Return trip to the south (toponyms partially broken)
Aššur	§ 5.E.1	[...]
Suqaqu ↑	§ 5.D.7	
Marmenu ↑	§ 5.D.6	
	§ 5.D.5	Ši[tullum] ↓
Yahappila ↑	§ 5.D.4	
	§ 5.D.3	Dur-[šar]ri ↓
Pulukku ↑	§ 5.D.2	(Maqala 5.B.5)
Hiššatum ↑	§ 5.D.1	
Mankisum ↑	§ 5.C.5	
Outbound trip (to be read from bottom to top)	§ 5.D	Return trip (to be read from top to bottom)

Table to § 5.D : The route Mankisum – Aššur at a glance. The stages of the return journey are broken off in text A and can only be partially completed. The arrangement of the toponyms roughly follows the geographical orientation of the stages on modern maps. North as on the maps above, south below. For this reason, the outbound journey is read from bottom to top in the left column.

The route upstream from Mankisum (§ 5.C.5, perhaps Tell Kurr, Hig. No. 726) to Aššur can be reconstructed with some certainty, as it apparently followed the river linearly and there seemed to be few important settlements in this region, at least on the east bank. This region was the border area between the kingdom of Ekallatum and the kingdom of Ešnunna at the time of Zimri-Lim of Mari. The ancient capital Akkade can perhaps also be sought there[100], although it did not serve as a stage in the Old Babylonian itineraries.

The route of the travellers along the Tigris has been studied by N. Ziegler.[101] She took a closer look at the stages of the itineraries in this area and drew a map (Fig. 7), which partly serves as the basis for Fig. 6. Essentially, the suggestions made at that time are still valid.

According to this proposal, the outward journey took place east of the Tigris. A toponym such as Marmenu (§ 5.D.6), which may go back to the word for the Yaminite tribe "mār yamīnu", seems to refer to a nomadic settlement not yet known from any other text. Clues like this speak for a sparsely populated area.

The return journey is less well attested for this section of the itineraries, since Text A is broken off at this point. It may have led the travellers to Šitullum (§ 5.D.5) along the west bank of the Tigris before they took a shortcut through the steppe area and travelled directly to Sippar.

5.D.1 Hiššatum

Hiššatum, the first station upstream of Mankisum, was sought by A. Goetze near the confluence of the river Adhaim,[102] while W. W. Hallo, influenced by his northern localisation of Mankisum, preferred a location near modern Daur (ed-Dur).[103] Both identified the toponym with the place *hi-iz-za-at* from the so-called "Sargon's Geography" (KAV 92[104]), which has to be searched for at the northern border of the province of Akkad. N. Ziegler commented on the state of knowledge about Hizzat thus[105]:

99 Ziegler 2002: 246-247: "Mankisum était une ville importante, située sur un gué. Elle possédait un comptoir commercial (*kārum*), un port important où pouvaient accoster des bateaux venant du royaume d'Ekallâtum, même si la navigation fluviale ne semble avoir été limitée qu'aux exceptionnels transports de grain, et que les personnes avançaient à pied, voire en caravanes."

100 We have devoted a dossier to the city of Akkade in *Entre les Fleuves–II* (BBVO 24). On the Old Babylonian Akkade see Ziegler 2014a. The Akkade of the Old Akkadian documentation has been treated by Sommerfeld 2014. For the more recent phases of Akkad's history, which are less well attested in the written sources, see Pethe 2014, Paulus 2014, Marti 2014 and Pirngruber 2014.

101 Ziegler 2002: 246-247.

102 Goetze 1953: 57a

103 Hallo 1963: 69b.

104 Text edition in Horowitz 1998: 67-95, for Hizzat see p. 68-69 § A14: "from Hizzat to Abul-Adad is the Land of Akkad".

105 Ziegler 2002: 245: "Aucun texte de Mari ne semble mentionner cette ville. D. R. Frayne [1992: 105-106, n. 80] propose d'identifier cette Hizzat avec le ville HA.A.IDIGNA des listes de Farâ et d'autres. Il fait allusion à la trouvaille d'une crapaudine comportant une inscription de Maništušu, découverte sur un tell proche de la jonction entre l'Adhaim et le Tigre [Tell Khara'ib Ghdairife], et suppose que cette trouvaille pourrait être originaire de la ville paléo-akkadienne de Hizzat. Cette inscription a depuis été publiée [RIME 2.1.3.6], mais l'identification du tell a été contestée [Steinkeller 1995]."

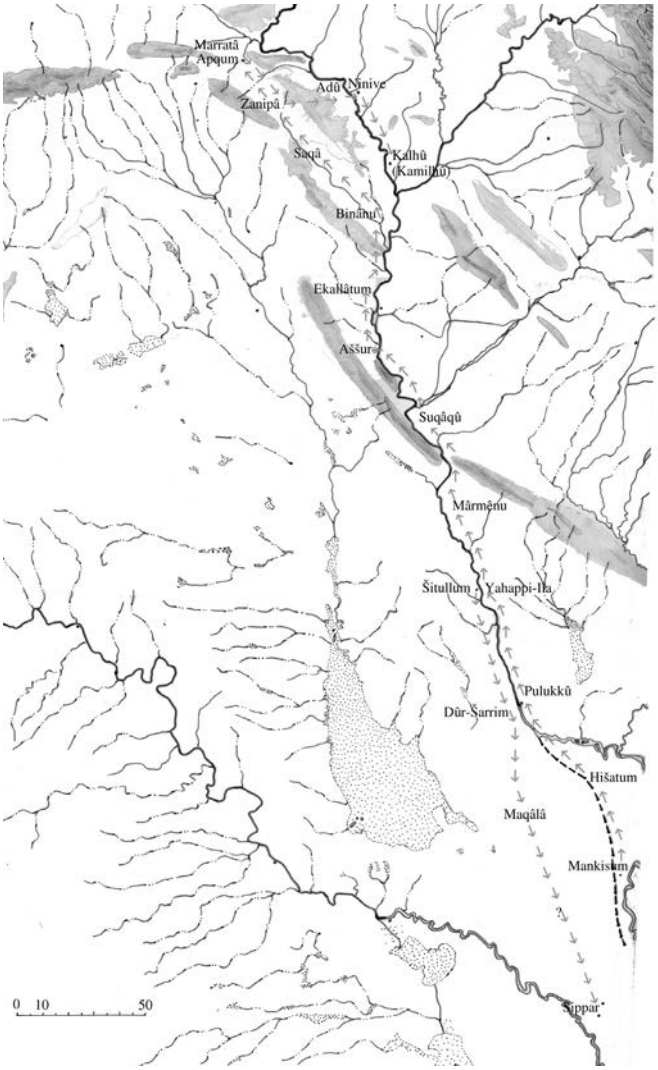

Fig. 7: Former reconstruction of a section of the Old Babylonian itineraries by N. Ziegler (Ziegler 2002: 236).

> "No text from Mari seems to mention this city. D. R. Frayne [1992: 105-106, n. 80] proposes to identify this Hizzat with the city HA.A.IDIGNA in the lists of Farâ and others. He alludes to a find of a door socket with a Maništušu inscription, discovered on a tell near the junction of the Adhaim and the Tigris [Tell Khara'ib Ghdairife], and assumes that this find could have originated from the Old Akkadian city of Hizzat. This inscription has since been published [RIME 2.1.3.6], but the identification of the tell has been disputed [Steinkeller 1995]."

In addition to P. Steinkeller's arguments against an identification of Tell Khara'ib Ghdaraife with Hizzat/Hiššatum, W. Sommerfeld can now also be consulted. He summarises the discussion on the place of origin of the Old Akkadian inscription and was not convinced of an identification of this tell with either Akkade or Hiššatum.[106] For the region between Baghdad and Samarra, with the location of Tell Kurr and Khara'ib Ghdaraife, the map below from the previous volume *ElF* II (BBVO 24) can be consulted (Fig. 8).

5.D.2 Pulukku

Pulukku[107] was two days' journey upstream from Mankisum (perhaps Tell Kurr, Hig. No. 726). The place name has been associated by W. W. Hallo with a word for "border".[108] W. W. Hallo, following his northern localisation, assumes the place to be near Tekrit. N. Ziegler suggested to search for it in the vicinity of Samarra, where the Tigris valley, which is narrower to the north of it, opens to the south. Pulukku could describe this natural situation:[109]

> "Its name indicates a 'border' or 'posts' marking a territorial boundary. Moreover, the question arises as to whether Pulukkû is not to be found in the Samarrâ region, and whether this town did not therefore signify the boundary between the alluvial plain and the beginning of the rocky plateau."

An unpublished Mari text mentions the sacking of [Pu]lukku and Dur-Daduša[110]—both could therefore be located in relative proximity to each other[111] and probably formed the northern border of the kingdom of Ešnunna in Old Babylonian times.

5.D.3 Dur-šarrim

This stage of the return trip was only read "Dūr-[x-]x" by A. Goetze but correctly interpreted as a fortress.[112] The reading Dur-šarrim has been suggested and commented on by N. Ziegler.[113] Like Šitullum, Dur-šarrim can be sought on the western bank of the Tigris, a day's journey down-

106 Sommerfeld 2014: 155.
107 Cf. Ziegler & Langlois 2016: 266.
108 Hallo 1963: 69b and fn. 48. Goetze 1953: 57 already interpreted this fragmentary place name in A: i 21 correctly.
109 Ziegler 2002: 245 "Son nom indique une « frontière » ou des « poteaux » marquant une limite territoriale. Par ailleurs, il se pose la question de savoir si Pulukkû n'est pas à chercher dans la région de Samarrâ, et si cette ville ne signifiait dès lors pas la limite entre la plaine alluviale et le début du plateau rocheux."
110 Ziegler & Langlois 2016: 84-85 locate this fortress on the left bank of the Tigris, on the northern border of the Empire of Ešnunna. See especially the discussion in Ziegler 2002: 242.
111 M.6686 (unpublished).
112 Goetze 1953: 64 and fn. 94 on the strategic situation of a whole series of fortresses.
113 Ziegler 2002: 242-243. See Ziegler & Langlois 2016: 88-89.

stream. An unpublished text from the Mari archives provides valuable clues to the interconnectedness of the various toponyms and clearly shows that Dur-šarrim is to be sought downstream from Šitullum:[114]

> "My 5 servants, whom I had sent to Mankisum to gather accurate information, arrived at my house on the day I had this tablet brought to my master. Downstream (literally below) Šitullum, in Dur-Daduša, they joined a travelling group of people from Dur-šarrim who wanted to go from Mankisum to Šitullum. Among my people whom I sent to the area of Mankisum were two people from Dur-šarrim who (now) live in Suhum.

The text confirms the sequence of Šitullum—Dur-šarrim—Mankisum, and shows that contacts between Dur-šarrim with the Suhum were intensive, as is also attested for Šitullum (below § 5.D.5). For both places, therefore, a location west of the Tigris seems likely.

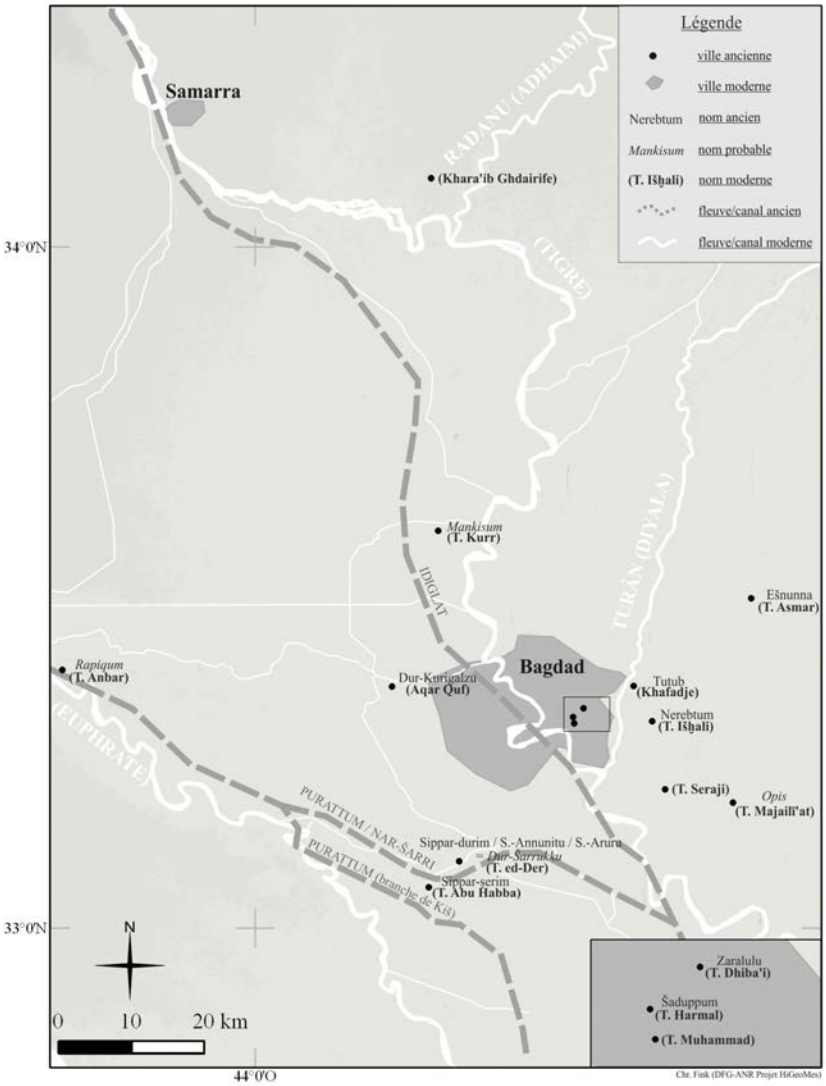

Fig. 8: Map by C. Fink in the introduction to the dossier "Die schriftliche Dokumentation zur Lage Akkades" in Ziegler 2014b:149.

5.D.4 Yahappila

Yahappila,[115] which was recorded in the Old Babylonian itineraries *ia-ha-ap-pi-i-il* or *ia-ha-ap-i*[*l*], was the third stage upstream from Mankisum (perhaps Tell Kurr, Hig. No. 726) and downstream from Aššur, and perhaps lay halfway between these two fixed points. The identification of the stage of the Old Babylonian itineraries with a Yahappila of the Mari documentation[116] had already been suggested by A. Goetze[117], and W. W. Hallo could only agree.[118]

N. Ziegler suggested a location for Yahappila on the eastern bank of the Tigris, approximately at the height of Tekrit, and assumed that the place was situated at a ford.[119] A travelogue from 1910 describes a ford "an hour's walk above the Dahri rocks" (Lorimer 1913: 51), which leads through the Tigris and could be crossed at least at low water (i.e. in autumn). It lies about 15 km south as the crow flies from present-day Tekrit. In this region, however, settlements of the second millennium BC have been relatively rarely explored, which is why a clear identification of a site with Yahappila cannot be made for the time being.

114 Unpublished text A.558+, quoted by Ziegler 2002: 242 fn 139. The toponym is written there BÀD.LUGAL^{ki}, in Akkadian Dur-šarrim.

115 Ziegler & Langlois 2016: 396 *s.v.* Yahappi-ila (1).

116 ARM 1 35 (LAPO 18 1004, www.archibab.fr/T4456): 15-22 gives instructions to Yasmah-Addu for a trip from Mari to Ešnunna. " There are roads from Mari to Yahpila (*ia-ah-pí-la*^{ki})—La'um knows them! Let him bring your equipment to Yahpila, you will get the supplies and provisions from Ekallatum".

117 Goetze 1953: 57a: "This is likely to be identical with *ia-aḫ-bi-la*^{ki} of ARM I 35, a station on a direct route from Mari to Ekallātum. The latter is located on the left bank of the Tigris, south of Assur and near the Eshnunna border." This erroneous localisation of Ekallatum has been revised by W. W. Hallo. See the contribution in the same volume (Ziegler & Otto 2023).

118 Hallo 1964: 70a.

119 Ziegler 2002: 245.

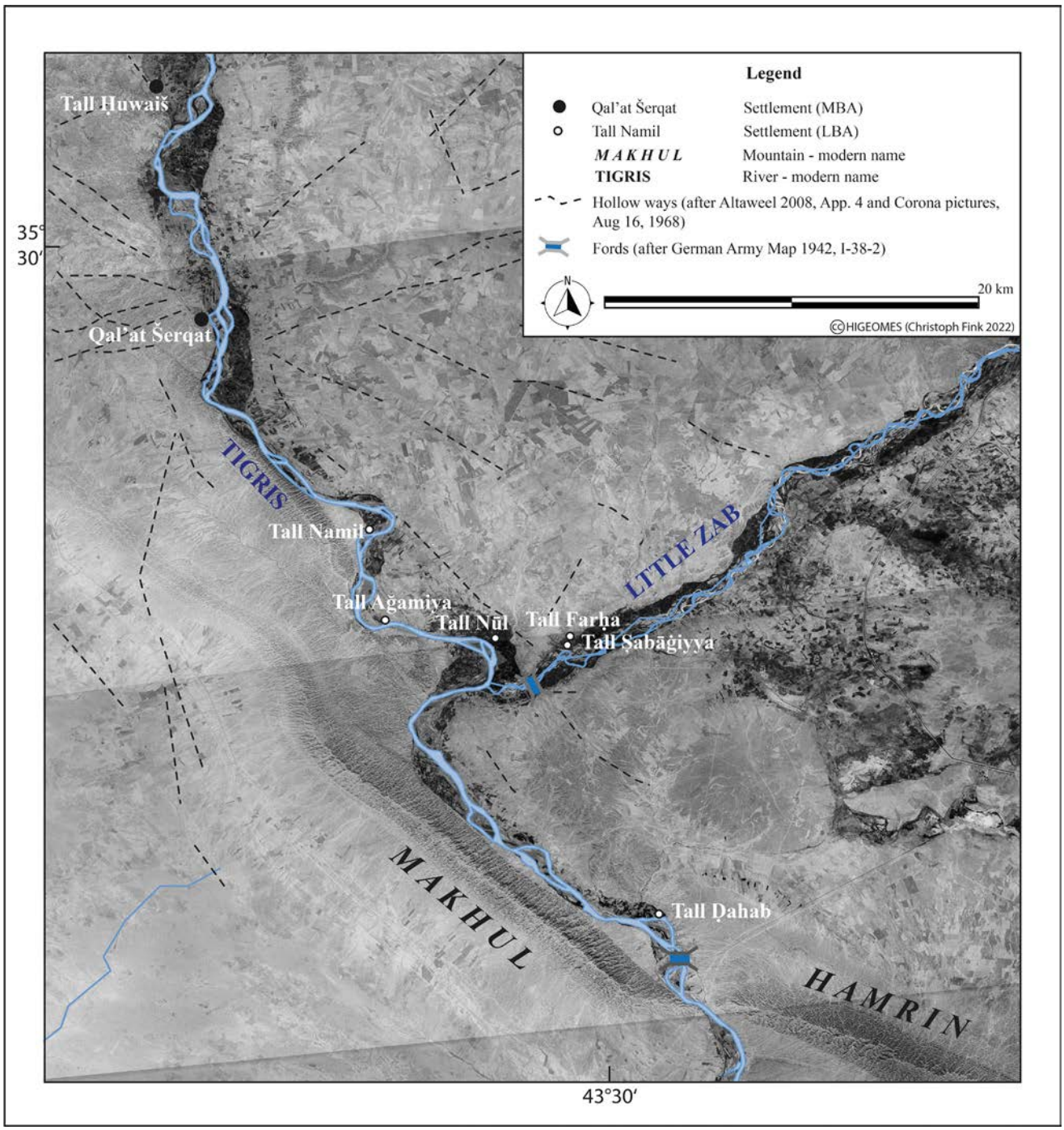

Fig. 9a: Second millennium sites and fords in the area of the confluence of the Little Zab with the Tigris based on a Corona image.

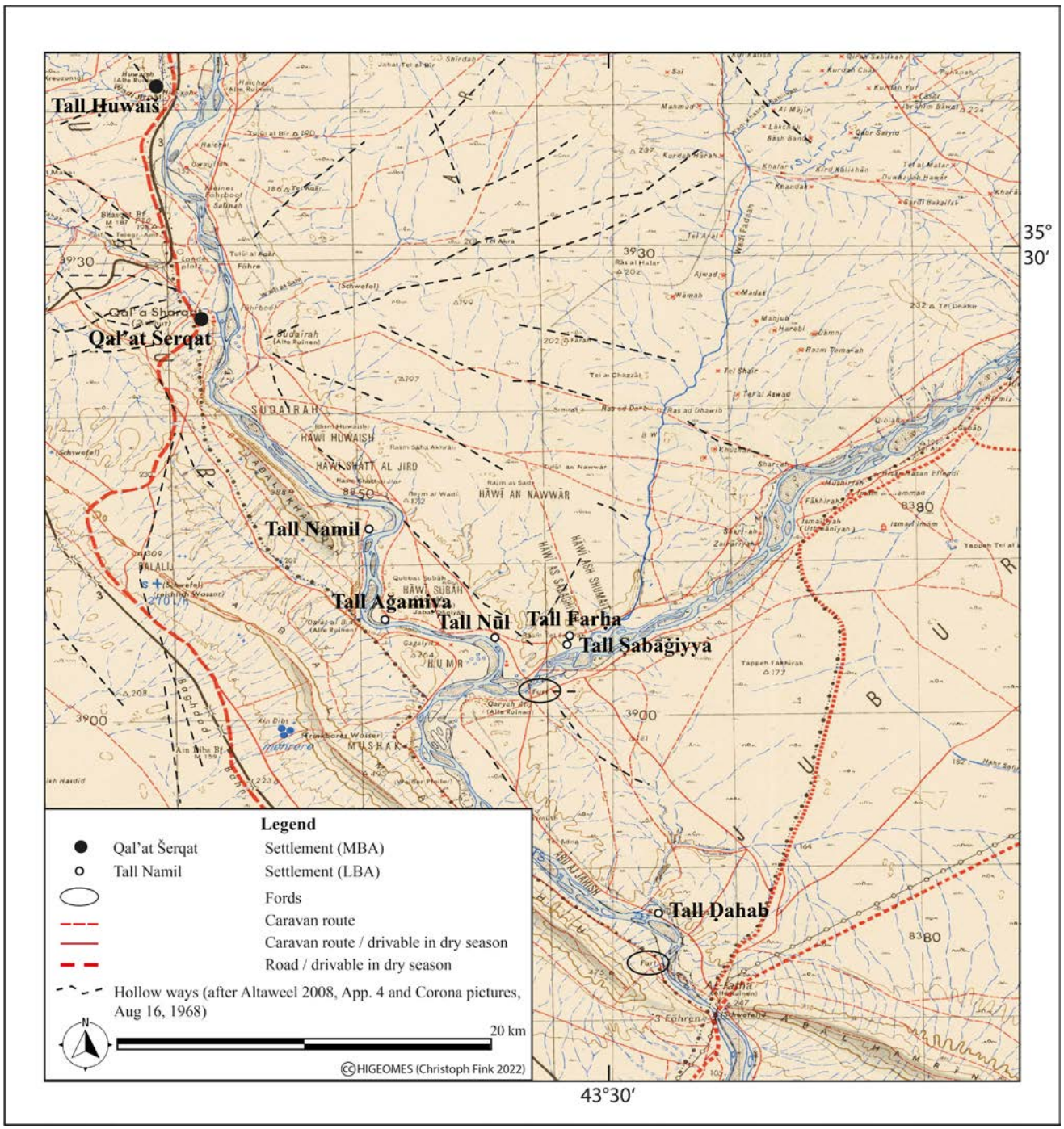

Fig. 9b: The same area as Fig. 9a with sites of the second millennium, hollow ways and fords (= "Furt"), based on maps of the Wehrmacht (1942).*

* Extract from sheet 'I-38/2 - QAL'A SHARQAT' of 'Irak 1:200000'.

5.D.5 Š[itullum]

The restoration of the toponym Šitullum has been suggested by N. Ziegler.[120] Šitullum was the most important fortified town in the south of the kingdom of Ekallatum and secured the border against Ešnunna. Text sources show that it took three days' march from Šitullum to Mankisum.[121] It was therefore, roughly speaking, at the same latitude as Yahappila. Šitullum was also well connected with the Euphrates valley, especially the Suhum. For this and other reasons, N. Ziegler suggested looking for the city on the west bank of the Tigris and identifying it with Tekrit (or a predecessor settlement near Tekrit).[122]

This suggestion is not currently corroborated by archaeological material, which is not surprising given the modern overbuilding, but at least a Middle Assyrian inscription from Tekrit supports the idea of the place's existence during the second millennium BC.[123]

5.D.6 Marmanu, Marmenu

For the penultimate Tigris stage before Aššur, Marmanu/Marmenu, there is no other evidence so far,[124] apart from the RTE texts A: i 23 (*ma-ar-me-nu-*[*ú*]) and B: 13 (*ma-ar-ma-nu*). W. W. Hallo, who defended a northern variant for this part of the itinerary, had suggested:[125]

> "It must be sought in the vicinity of al-Fatḥa and probably lay on the left bank of the Tigris."

N. Ziegler's commentary was short[126]:

> "No text from Mari documents this stage of the Old Babylonian itineraries between Yahappi-Ila and Suqâqû. Its name could refer to the Benjaminites (cf. FM VII, p. 155) and not to an important town."

Her map (see Fig. 7 above) marked the place south of el-Fatha. Since the Tigris swerves to the west in this area, the travellers may have decided to take a shortcut through the steppe. Marmenu does not necessarily have to be sought in the river valley.

5.D.7 Suqaqu

Suqaqu[127] is a day's journey south of Aššur. The region of the confluence of the Tigris and the Little Zab is dominated on the western bank of the Tigris by the Makhul Mountains, which together with the Hamrin form a mountain range that is pierced by the Tigris about 50 km south of Aššur and thus represents an important bottleneck on the road along the Tigris. The area was investigated very early on by various researchers, including Ernst Herzfeld and Walter Bachmann, but more recent archaeological investigations have only taken place in the last 20 years.

Suqaqu is better known from sources of the post-Old Babylonian period and is mentioned in the Assyrian-Babylonian chronicles as the site of several battles between the two kingdoms. N. Ziegler has summarised the discussion as follows:[128]

> "For Suqaqu, the last stage downstream from Aššur according to the two Old Babylonian itineraries, and place of a battle which opposed at the end of the 14th century the Babylonian troops of Kurigalzu II to the Assyrians of Adad-nerari, one refers to the note of J. A. Brinkman [1970]. He argues against locating this city on the right bank of

120 Ziegler 2002: 240-241.

121 Unpublished A.712+, quoted by Ziegler 2002: 241 fn. 131.

122 Besides Ziegler 2002: 240-241 also have a look at Ziegler & Langlois 2016: 340-341.

123 For the Middle Assyrian documentation, see Cancik-Kirschbaum & Hess 2016: 135 *s.v.* Šītula. A still unpublished inscription of the time of Adad-nerari I found in Tekrit could indicate that the site was settled in the Late Bronze Age. The name Takrit (or similar), which was used from Neo-Assyrian times onwards, has not yet been attested in the written documentation of the 2nd millennium BC.

124 Goetze 1953: 57 "otherwise unknown".

125 Hallo 1964: 70a.

126 Ziegler 2002: 245: "Aucun texte de Mari ne documente cette étape des itinéraires paléo-babyloniens entre Yahappi-Ila et Suqâqû. Son nom pourrait faire allusion aux Benjaminites (cf. FM VII, p. 155) et ne pas désigner une ville importante." See also Ziegler & Langlois 2016: 225.

127 Two Old Babylonian place names Sugagu/Suqaqu exist. Suqaqu (2) that has to be differenciated from Suqaqu (1) in the Euphrates valley, is commented on by Ziegler & Langlois 2016: 314. For the Middle Assyrian evidence see Cancik-Kirschbaum & Hess 2022: 114.

128 Ziegler 2002: 245: "Pour Suqâqû, la dernière étape en aval d'Aššur selon les deux itinéraires paléo-babyloniens, et lieu d'une bataille qui opposa à la fin du XIV[e] siècle les troupes babyloniennes de Kurigalzu II aux Assyriens d'Adad-nirârî, on se réfère à la note de J. A. Brinkman [1970]. Il s'y oppose à une localisation de cette ville sur la rive droite du Tigre, (qui figurait ainsi sur la carte de W. W. Hallo, JCS 18, p. 71) puisque ce côté du fleuve, avec la pente raide du Djebel Makḥul, laisse peu de place pour des routes. En outre, J. A. Brinkman a souligné le fait que la 'Chronique Synchrone' localise cette ville sur le Tigre. Les deux itinéraires font état d'un arrêt de deux jours dans cette ville. Il reste à savoir, si ces deux jours étaient nécessaires pour que les troupes puissent récupérer des fatigues que leur avaient causées les grandes étapes depuis Mankisum, ou bien si ce délai était imposé par des difficultés pour franchir le Petit Zâb. Dans ce cas, Suqaqû serait à chercher dans la proximité immédiate du confluent du Petit Zâb avec le Tigre, sans doute au sud. R. Dittmann [1995 p. 100, n. 20] se demande si Tell ed-Dahab ne pourrait pas recéler les ruines de Suqâqû, mais il note qu'il n'y a apparemment pas de vestiges paléo-assyriens."

the Tigris, (which was thus shown on the map of W. W. Hallo, [1964: 71]) since this side of the river, with the steep slope of Jebel Makḫul, leaves little room for roads. Furthermore, J. A. Brinkman has pointed out the fact that the 'Synchronic Chronicle' locates this city on the Tigris.

Both itineraries mention a two-days stop in this city. It remains to be seen whether these two days were necessary for the troops to recover from the fatigue of the long stages from Mankisum, or whether this delay was imposed by the difficulties of crossing the Little Zab. In this case, Suqaqu would be sought in the immediate vicinity of the confluence of the Little Zab with the Tigris, probably to the south. R. Dittmann [1995: 100, n. 20] wonders whether Tell ed-Dahab might not contain the ruins of Suqaqu, but he notes that there are apparently no Old Assyrian remains."

Since, as already indicated above, the region seemed to have been of great importance for logistical reasons, it is very likely that Suqaqu was located in this area at the tributary of the Little Zab into the Tigris. It can be assumed that the site was located at a ford of the Little Zab. Army maps attest to a ford in the area where the Zab joins the Tigris, and the importance of this ford is underlined by the modern paths and hollow ways leading to it, which are visible in Corona images from 1968 and the work of Mark Altaweel.[129] Other fords across the Tigris existed a few kilometres further north and south of the Makhul–Hamrin breakthrough.

After the Makhul Dam project was launched by the Iraqi government and since the archaeological sites of this region are threatened, archaeological research including surveys and excavations has been carried out.[130] However, no Middle Bronze Age sites could be registered. Even possible "Assyrian" layers on the imposing Tell Dahab were later backdated to the Akkadian period.[131] Accordingly, Fig. 9a shows sites from the 2nd millennium BC more generally. The exact location of Suqaqu can therefore not be proposed.

If Suqaqu must be sought at the confluence of the Little Zab and therefore east of the Tigris, the question arises as to where the travelling party crossed the Tigris on their way to Aššur.

It may be assumed that boats were available for this purpose. In the early 20th century AD, Aššur was reached via a ferry just a few kilometres upstream at Mabar esh-Sherghat. Additionally, there seem to have been fords through the Tigris, e.g. a British map of 1915 ("Eastern Turkey in Asia", Sheet 35 – Kirkuk) shows a ford about 15km further north.[132] However, it can be assumed that these fords were only accessible at low water, i.e. in late summer or autumn.

5.E From Aššur to Apqum

In the second millennium, the usual route from Aššur to the north or northwest, i.e. also the most direct route taken by the Old Assyrian merchants to Kaneš and Anatolia, ran somewhat north of Aššur to the NNW. It generally did not run along the banks of the Tigris, as the foothills of the Jebel Sinjar between Mosul and the confluence of the Great Zab make the west bank of the Tigris difficult to pass.[133] About 40 km north of Aššur, about halfway between Aššur and Kalhu, the Jebel Najma ridge extends from the west directly to the Tigris valley, leading to rapids at this point, which are marked on Kiepert's map of 1893. Between Aššur and Qaiyara, on the other hand, i.e. between Jebel Makhul and the mountain ranges of Najma, Shanin and Ibrahim, this creates a wide corridor to the northwest, which is the ideal route to Jebel Sinjar and then to the Habur Triangle.

Outbound trip from south-east to north-west	Comment on toponym	Return trip from west to south-east (toponyms of the return trip partly broken off)
Apqum-ša-Addu ↑	5.E.8	
Sanipa ↑	5.E.7	Sanipa ↓
	5.E.6	Adu ↓
	5.E.5	Kamilhu ↓
Saqa ↑	5.E.4	[...]
Binanu ↑	5.E.3	
Ekallatum ↑	5.E.2	
Aššur ↑	5.E.1	
Outbound trip (to be read from bottom to top)	§ 5.E	Return trip (to be read from top to bottom)

Table to § 5.E : Overview of the section Aššur – Apqum. The stages of the return journey are broken off after Kamilhu (§ 5.E.5) and cannot be restored.
The arrangement of the toponyms roughly follows the geographical orientation of the stages on modern maps: Northwest is up, south is down. The outward journey is to be read from bottom to top in the left-hand column.

129 Altaweel 2008: App. 4.
130 Mühl & Sulaiman 2011: 371.
131 Mühl 2013: 223-224.
132 See in the same volume Ziegler & Otto 2023.
133 For the route that was probably used mainly in Middle and Neo-Assyrian times and that led from Aššur directly to the northwest see Altaweel 2008: 69 Fig. 20. For routes from Aššur or Kalhu and Nineveh directly to the west see Kühne 2021: 304 Figs. 12, 13.

David Oates (1968: 15), who was the first to explore the communication systems in northern Mesopotamia, describes the route from the Tigris to the Habur Triangle like this:

„Direct penetration to the north between the Khabur and the Tigris is barred by the first outlying range of hills, where Jebel Sinjar, rising as much as 1,000 m. above the plain, is impassable except at a very few points. It is continued south-eastwards from Tell Afar to the Tigris at Qaiyara by an intermittent chain of lower ridges, Jebel Sheikh Ibrahim, Jebel Shanin, Jebel Jawan, and Jebel Najma, which are less formidable than Jebel Sinjar but still present a barrier to communication except at well-defined crossings. The northern sector of this chain is backed by Jebel Atshan, overlooking the Tigris valley at Mosul; parallel with Jebel Najma but further to the south is the rugged range of Jebel Makhul, a north-westward continuation of Jebel Hamrin and separated from it only by the Tigris gorge. The only point at which communication between the steppe and the Tigris north of the gorge is virtually unhindered is the saddle, some 30 km. wide, between Jebel Najma and Jebel Makhul. This serves as a corridor linking the upper Tharthar in the neighborhood of Hatra with the river valley between Qaiyara and Sharqat, the site of ancient Aššur. It is approximately at this point that the outer limit of reliable rainfall crosses the Tigris."

On his map of "North Iraq in the Parthian period", D. Oates marked important routes (Fig. 10) which, in our opinion, partly correspond to the routes of the Old Babylonian period (Fig. 11). Especially in the area between Aššur and the Jebel Sinjar, which has been little influenced by agriculture until today, it is quite probable that proven routes remained more or less unchanged for thousands of years. Therefore, the routes reconstructed by Oates for the Parthian period can certainly be considered as an approximation for the second millennium as well. The route from Mosul to Nisibin also remained almost unchanged for centuries (see below).

Starting from Aššur, the route of the RTE first led along the Tigris about 15 km exactly north to Ekallatum (§ 5.E.2), which can now be identified with certainty with Tell Ḥuwaish (see contribution Ziegler & Otto 2023, this volume).

Upstream of Tell Ḥuwaish, the Tigris makes a bend to the northeast, which is caused by the mountain ranges of Jebel Atshan, Shanin, Jawan and Najma. The Great Zab flows into the Tigris there. Certainly, ancient routes also led along the Tigris to the NNW towards Kamilhu/Kalhu or Nineveh, but these were certainly never the main routes due to the mountain ranges that narrow the valley in many places. The main route led in the corridor described above from Ḥuwaish to the NNW. This ancient road can be traced on the ground over 18 km, starting from the northern city gate of Tell Ḥuwaish, and is visible on aerial photographs as hollow ways or tracks[134] (Fig. 11). The road can also be traced on the ground, at least this was possible in the 1960s. It is very likely that this road was the royal road for centuries. D. Oates describes archaeological remains that can be interpreted as way stations, which lined this road:[135]

"At intervals of some 4km., where the road crosses the crest of a ridge, there are small mounds between 5 and 10 m. in diameter. On these only a few sherds of indeterminate character were found. Their purpose is obscure; they are well sited for signal stations but seem unnecessarily close to one another. Only four were identified and their siting may be fortuitous."

These small elevations have never been investigated since then, but it would be very exciting—against the background of better knowledge of the pottery and with the help of modern methods—to check whether there might be road stations hidden in them, perhaps dating back to the second millennium.

The first kilometres of this route were probably also used by travellers towards Razama (Tell Abṭa, Hig. No. 908[136]) and Qaṭṭara (Tell al-Rimah, Hig. No. 101[137]), but this route then turned slightly to the west[138]. According to the written sources in the archives from Qaṭṭara and also the slightly older sources from Mari, this area probably belonged politically to Karana – either to the province of the Upper Mesopotamian kingdom of Samsi-Addu, or to the independent kingdom of Karana (Fig. 12)[139]. This political affiliation to Karana probably applies to the whole stretch of the outward journey from Binanu (§ 5.E.3) to Apqum (§ 5.F.1).

The travellers on the RTE covered the distance from Ekallatum to Apqum-ša-Addu in four stages on the outward journey. Between Tell Ḥuwaish (§ 5.E.2 Ekallatum) and Tell Abu Mariam (§ 5.F.1 = Apqum) there are 110 km as the crow flies, which means a daily average of 27.5 km. However, the first three stages must have been even somewhat longer (about 30 km each), if we identify Sanipa (§ 5.E.7) with Tell Kharima. However, distances of 30 km a day were probably not a problem in this area because the

134 Oates 1968: 59; Altaweel 2008: 68 Fig. 19. See also Ziegler & Otto 2023, this volume, Fig. 4.

135 Oates 1968: 59-60 with fn. 5.

136 On the Old Babylonian documentation see Ziegler & Langlois 2016: 288-289.

137 On this now esp. Langlois 2017a : 11-15. See also Ziegler & Langlois 2016: 271-273.

138 For this route see Oates 1968: 35-36 with fn. 3 and Ziegler 2002: 255-266.

139 The kingdom of Karana has been studied by Langlois 2017b: 205-230.

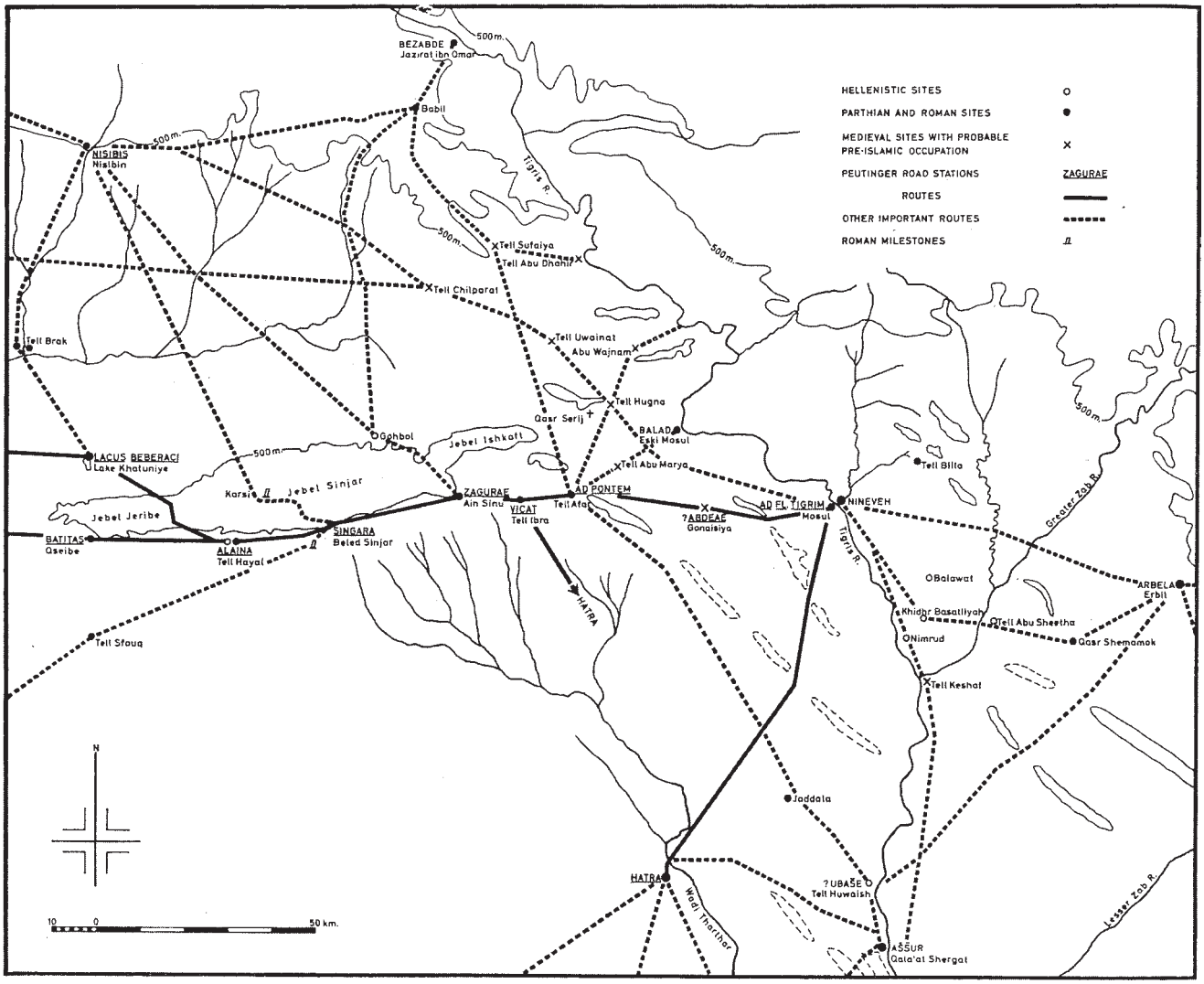

Fig. 10: Route systems in northern Mesopotamia in the Parthian period (Oates 1968: 76, Fig. 5).

terrain is relatively flat, without large wadis or other natural barriers, and was easy to cross.

N. Ziegler reconstructed the travellers' route on a map in her study on Ekallatum in 2002 (above Fig. 7). She assumed at that time that Binanu and Saqa could perhaps be sought northeast of the small mountain ranges Jebel Qayyara, Jawan and Nejma. Today, in view of the road leading NNW from Tell Ḥuwaish, this no longer seems likely, and we propose the route southwest of the mountain range (Fig. 12).

All in all, it is remarkable for the stretch of road between Aššur and Šubat-Enlil that the outward and return ways choose different routes (see in detail Figs. 12 and 14). While the course of the path and many stations of the outward route can be reconstructed with some certainty, most of the stations of the return route remain uncertain. An explanation for this can be found below in § 5.F.

5.E.1 Aššur = Qalat Sharqat (Hig. No. 111)

The documentation on Aššur in Old Babylonian text sources has been collected.[140] The geopolitical role of Aššur in the 18th century BC has been studied by N. Ziegler[141]. It is interesting to note that in the texts from the reign of Samsi-Addu (1809 – 1776 BC) there is the habit of referring to Aššur simply as "the city" (*ālum*), —as was customary in the archives of the Old Assyrian merchants of Kaneš[142]. This

140 See the attestations in Ziegler & Langlois 2016: 44-45, to which can be added *a-lim*^{ki} ^{d}*a-šùr* in LT 5: 8'.

141 Ziegler 2002: 217-220, 237-238.

142 Ziegler 2002: 213-217. Until then, it had sometimes been assumed that in the texts of Samsi-Addu's time "the city" referred to the political capital Ekallatum (§ 5.E.2). However, this could be refuted.

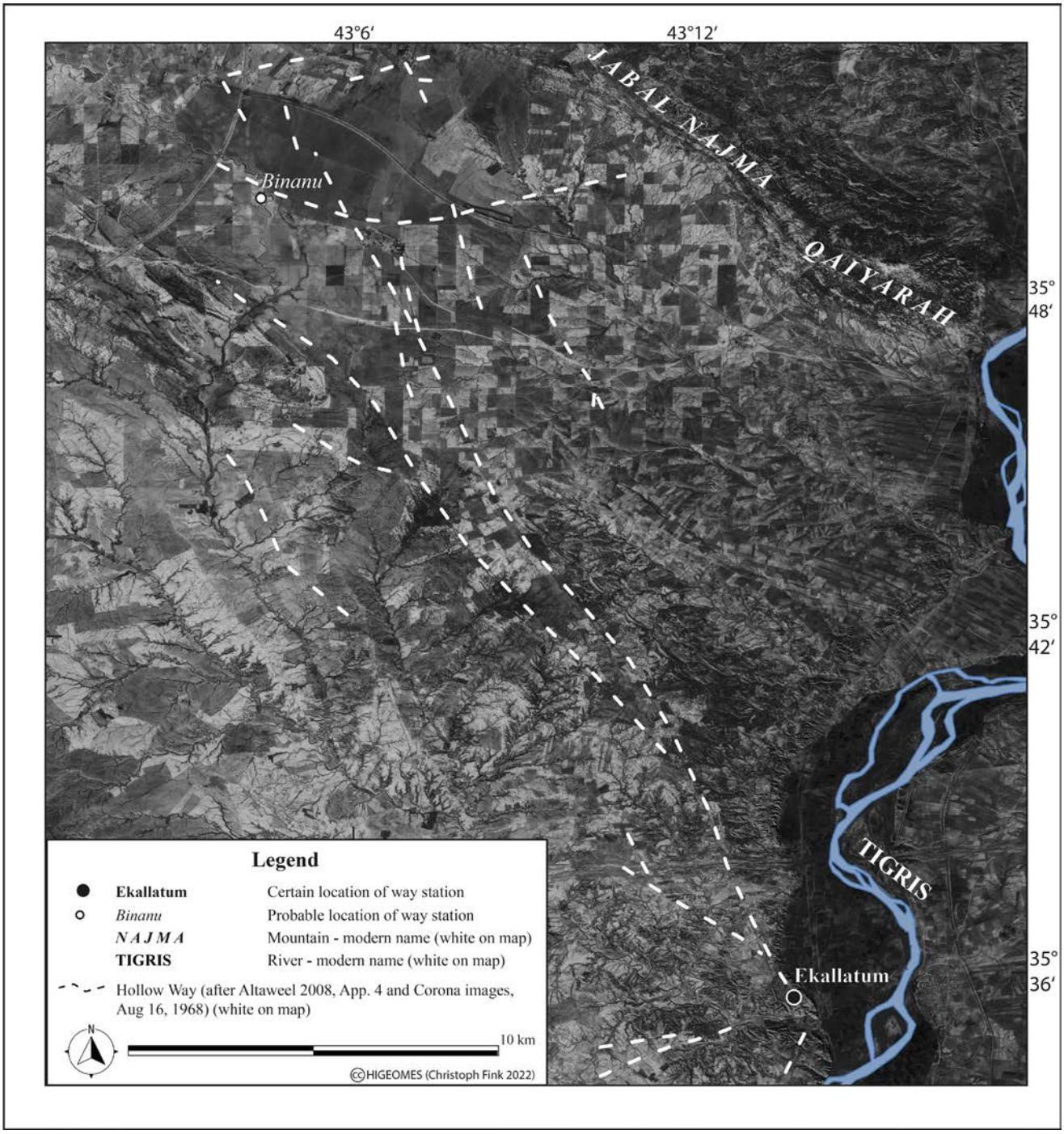

Fig. 11: The route from Ekallatum to the northwest on the base of Corona images.

was probably due to the religiously outstanding role of the city of Aššur. At the time of Samsi-Addu, the bustling ruler of the Upper Mesopotamian kingdom, Aššur was not the political capital, but Ekallatum. This remained so even in the first years of Išme-Dagan's reign, as the Mari texts of the time of Zimri-Lim testify. However, the texts of this period also show that the military influence of Ešnunna and then Babylon was considerable in Ekallatum.

It is not impossible that the city of Aššur was still politically dependent on Ekallatum at the time of the writing of the RTE. Whether Išme-Dagan or his son Mut-Asqur sat on the throne at that time is not ascertainable at present. A sign of a diminished political leadership of this kingdom is that neither the archives from Tell Leilan contemporary to the RTE, nor texts from Qaṭṭara mention a ruler, but they only mention merchants from Aššur. Babylon's mil-

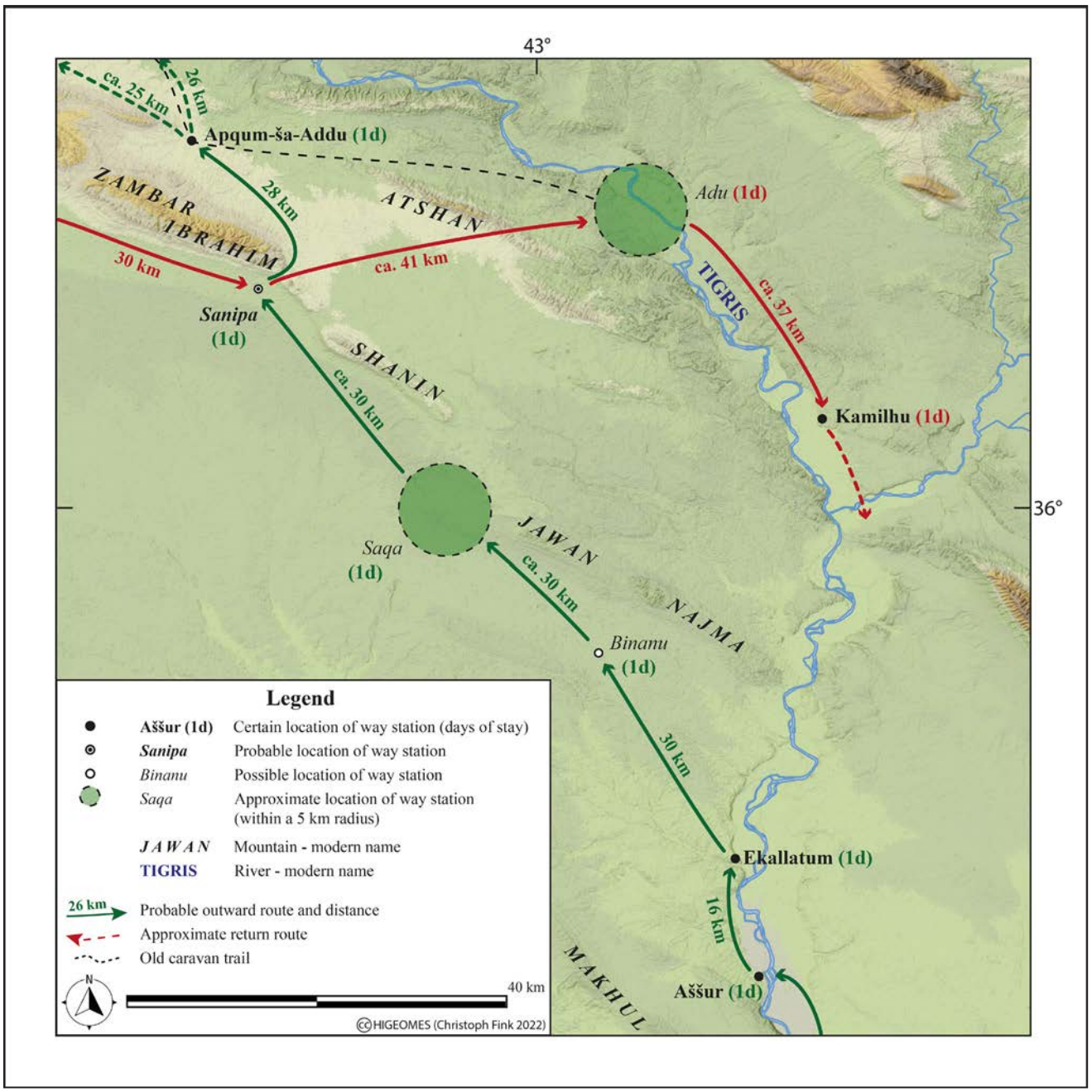

Fig. 12. Section E from Aššur to Apqum.

itary-political influence was perhaps still strong at this time. Unfortunately, the texts from the Karum Kaneš Ib are less illuminating in this respect[143].

The travellers of the RTE did not make a longer stop in Aššur on the way there. Whether they also stopped in Aššur on the return journey has been assumed by W. W. Hallo[144] but is not certain (see § 5.E.5 below). In both texts, the toponym Aššur is noted phonetically (B: *15 aš-šu-ur*, A likewise).

143 Barjamovic, Hertel & Larsen 2012; Kulakoğlu 2011; Larsen 2015.

144 Hallo 1964: 83b.

5.E.2 Ekallatum = Tell Ḥuwaish (Hig. No. 417)

On Ekallatum see the contribution by N. Ziegler and A. Otto in this volume[145].

5.E.3 Binanu, perhaps the nameless tell with the coordinates 43.072093 / 35.831793 (certainty 1)

The toponym written Binanu in the Old Babylonian itineraries may well be identified with Bunineyu[146], a fortified settlement, belonging to the kingdom of Karana. A.-I. Langlois has studied this site on the basis of textual documentation from Qaṭṭara (Tell Rimah)[147]. The fortification of the city by a wall was organised by Haqba-Hammu (OBTR 59). Cattle were fattened in Bunineyu and the royal family of Karana could stay there, as indicated, among other things, by wine deliveries to the king on the occasion of a stay in this place[148]. If this identification of Binanu with Bunineyu is correct, it is astonishing that the first station northwest of Ekallatum apparently no longer belonged to the territory of Ekallatum, but already to the kingdom of Karana. From sources of the time of Zimri-Lim, which are thus a decade older according to our dating hypothesis of the RTE, we know that the kingdom of Ekallatum on the Tigris could reach as far as Kalhu. How far inland it extended remains unknown.

No identification has yet been proposed for Binanu. Starting from Ḥuwaish, the course of the route can be followed for the first 18 km in aerial photographs and on site. If one then continues to follow roughly this direction, one arrives about 30 km north-northwest of Ḥuwaish at a tell site about 90×90 m in size, which appears to be surrounded by a lower town and lies directly on a small watercourse (43.072093 / 35.831793). As no survey of this mound has been published, this is submitted here as a suggestion and will need to be verified in future site surveys.

5.E.4 Saqa

Saqa is poorly documented. Besides being mentioned in the RTE, the site is perhaps attested in only one document from Qaṭṭara (Tell Rimah)[149], which is astonishing, since Saqa probably lay in the territory of the kingdom of Karana, to which Qaṭṭara belonged. Furthermore, an unpublished text from Mari from the time of Samsi-Addu names the place together with Apqum, among others. It may have been a fortified settlement, militarily secured by Addu-napsi with other places mentioned in the text.[150]

Saqa does not seem to have had any particular significance. It can be assumed that the place was primarily a fortified way-station. If our identification of Sanipa with Tell Hamira (below § 5.E.7) is correct, Saqa must be sought about 30 km southeast of it, on the route from Tell Ḥuweish to Tell Hamira. Various smaller tells can be identified on aerial photographs, but there are too few clues even for a tentative identification.

5.E.5 Kamilhu = Nimrud (Hig. No. 170) and the way to the south

Kamilhu, written *ka-mi-il-hu* in Text A: i 33, is a toponym whose pronunciation may have caused problems for the Old Babylonian scribes, since it could also be written Kawilhum, Kawelhum, Kawalhum and even Kalhu with the phonetic sign KÀL, which is rare by Old Babylonian standards[151]. That Kamilhu is to be identified with Kalhu, modern Nimrud, where levels of the second millennium are attested (Hig. No. 170), was already suspected by W. W. Hallo:[152]

> "(...) Kamilhu, two days' march below Zalipâ, may well be none other than the later Kalhu, if it be supposed that the great neo-Assyrian capital perpetuated an ancient village name on the same or nearby site."

and ibid. in footnote 28 he added:

> "Had it been an entirely new foundation, it would probably have borne the name of its royal builder."

145 For a short note see already Ziegler & Otto 2022.

146 Ziegler & Langlois 2016: 66-67, but delete there the erroneous reference to "inédit [TH 72.2]: 39". For TH 72.2 see Ziegler & Otto 2023, this volume, § 2.3.2. Hallo 1964: 72b calls the stations Binanu and Saqa "obscure".

147 Langlois 2017b: 209-210.

148 References in Langlois 2017b: 210.

149 See Langlois 2017b: 221 and esp. note 306; Ziegler & Langlois 2016: 305. Goetze 1953: 64 locates the site in the Wadi Tharthar. Hallo 1964: 72b calls the Binanu and Saqa stations "obscure". The Middle Assyrian homonyms Saqa refer to other localities in the greater Habhu area, cf. Cancik-Kirschbaum & Hess 2022: 110.

150 Unpublished A.3281.

151 Ziegler & Langlois 2016: 185 s.v. Kawalhum, where all spellings are collected. An unpublished text from Mari also attests the spelling *kàl-hu-ú*, which makes the restoration of ARM 26/2 494: 27, reedited as FM 6 81, sure. See literature and pictures in www.archibab.fr/T6786.

152 Hallo 1964: 83b.

Kamilhu was only a stage on the return journey and followed the stop at Adu there (§ 5.E.6). 32 km as the crow flies separate Mosul, near which we assume Adu, from Kalhu alias Kamilhu.

Text A breaks off after Kamilhu and does not resume until Š[itullum] (§ 5.D.5), perhaps in the area of Tekrit. How the travellers got from Kamilhum (Nimrud) to Šitullum (perhaps Tekrit) is unclear. W. W. Hallo suggested that they travelled via Ekallatum and Aššur[153]. This is possible, but an interesting letter from Mari lists a completely different alternative route. This route started from Ešnunna via Arrapha and Kalhu, i.e. it avoided the Tigris valley in a large arc to the east[154].

If the course of the return route is still unclear, one thing seems certain: the travellers continued to travel on foot or by donkey caravan, since the stops at the steppe places of Maqala § 5.B.5 and Al-ka-mi-ni-a § 5.B.4 cannot be explained otherwise.

5.E.6 Adum

The Old Babylonian Adum[155] (written *a-du-ʳú*¹ with long U in A: iii 32) can certainly be identified with Middle Assyrian Adiu[156] and Neo-Assyrian Adia[157] and was situated at the Tigris in close proximity to Nineveh, possibly at a ford, a ferry station or a harbour. Of particular interest is the text TH 72.2, which has been discussed in more detail by Ziegler & Otto 2023 § 2.3.2 in this volume. The textual evidence suggests the following itinerary for messengers:

> (Razama) → Gadaššum → Adum → Tigris (Idiglat) → the city of Nine (= Nineveh)

Not only this text, but also ARM 26/2 517 shows that Adum lay on a Tigris ford and was used by those who wanted to cross the Tigris at Nineveh. It may be assumed that the travellers of the RTE, who were under great time pressure on their return trip, obviously also stayed overnight in Adum for this reason in order to cross the Tigris the next morning. From there they proceeded along the eastern bank to Kamilhu (§ 5.E.5), and perhaps advanced south along faster routes.

A. Bagg cites and critically comments on the extensive bibliography on Neo-Assyrian Adiu, which is very well documented. He locates Adiu on the right bank of the Tigris not far from Nineveh and near a quarry,[158] on the basis of the mention of bull colossi in Sargon's correspondence, which is why Adiu is identified in the Helsinki Atlas with Mosul:[159]

> "On the right bank of the Tigris not far from Nineveh, near a quarry, as the mention of bull colossi in Sargon's correspondence attests. (...) The letter SAA 13, 83 seems to indicate that only a river crossing separated A. from Nineveh. For this reason A. is identified with (the western part of) Mosul in Helsinki Atlas, 4. 28 (see also id., Gazetteer, 1)."

5.E.7 Sanipa probably Tell Khamira (Hig. No. 396, certainty 2)

Sanipa[160] must have been a conveniently located place from a traffic point of view, since the travellers of the Old Babylonian itineraries stopped there both on the outward journey and on the otherwise different route of the return journey. Sanipa was a day's journey from Apqum (§ 5.F.1, Tell Abu Marya) and is mentioned in a letter from the governor of Karana at the time of Samsi-Addu with other places in the area and Talmuš in the East Tigris region:[161]

> "I have heard (the contents of) the tablet of my lord. My lord wrote to me that Sumiya had come from Talmuš and (said): 'The enemy has gathered in Ašal!'

153 Hallo 1964: 83b, Ekallatum would have been reachable two days later, Aššur three days later.

154 M.5431, see Joannès 1992.

155 Ziegler & Langlois 2016: 8. Goetze 1953: 64a locates the toponym very far south, at al Fatha, a suggestion with which we disagree.

156 Cancik-Kirschbaum & Hess 2022: 4.

157 Bagg 2017: 6-7.

158 The quarry of Balatai, where the stones for the Lamassu colossi for the palace of Ninive had been extracted, are further north, close to Eski Mosul (Hig. No. 681), ca. 20 km northeast of Abu Marya and 50 km northwest of Mosul (Reade 1978a and Moorey 1994: 32). This seems too far to the north for the RTE but remains open for discussion. A. Otto thinks it possible, that the travellers continued by boat and advanced more quickly. This, on the other hand does not seem likely to N. Ziegler. According to her, if the travellers would have taken a boat, the final cutting through the steppe after Šitullum and Dur-Šarrim would be unexplainable, see above § 5.B.

159 Bagg 2017: 6-7 "am rechten Tigrisufer unweit von Ninive, in der Nähe eines Steinbruchs, wie die Erwähnung von Stierkolossen in Sargons Korrespondenz bezeugt. (...) Der Brief SAA 13, 83 scheint darauf hinzudeuten, dass nur eine Flussüberquerung A. von Ninive trennte. Aus diesem Grund wird A. im Helsinki Atlas, 4. 28 (s.auch id., Gazetteer, 1) mit (dem westlichen Teil von) Mosul identifiziert."

160 Interestingly, the spellings of the toponym vary from text to text. Hallo 1964: 72-73 approximates the toponym to a Neo-Assyrian country name ^{kur}*za-li-pa-a-a*, thus interpreting the Old Babylonian place Salipâ and locating it on the Tigris. We do not follow this view.

161 ARM 5 43. Ašal was a settlement northeast of Qaṭṭara (= Tell al-Rimah), see Langlois 2017b: 209.

Fig. 13: Corona satellite photo of Tell Khamira/Hamira, probably Sanipa.

> Now let (the population) of the district of Šaššaranum enter Apqum and Sanipa. And (the population) of the district of Yanuh-Samar we let enter Sadduwatum[162] (...)"

Sanipa, like Apqum, was accordingly the best fortified locality in the area[163].

The city was probably still part of Karana territory around the 1750s BC. Surprisingly, no text in the Qaṭṭara (Tell Rimah) archives mentions the place[164].

We suggest identification with Tell Khamira / Hamira.[165] We rate this identification as probable ("certainty 2"). This tell lies 89 km as the crow flies from Tell Ḥuwaish, i.e. ideal three stages of 30 km/day, at the southern end of the Jebel Ibrahim mountain range.

Tell Khamira looks imposing: an oval citadel lies relatively centrally in the surrounding lower town which consists of various smaller elevations. The whole city is surrounded by a roughly pentagonal outer rampart wall. This city wall shows numerous passages and openings, some of which certainly correspond to city gates, and appears to be surrounded by a moat. Some structures are also visible outside the city wall, along the road leading northwards. The extent of the walled town area is about 580 m from SW-NE and a maximum of 550 m in a NW-SE direction. The peculiar structure of an extensive and heavily fortified, but obviously only partially settled lower town fits remarkably well with the above-mentioned text, which describes Sanipa as a refuge for the population of the region.

The site was surveyed by D. Oates[166] and J. Ibrahim[167], and there was a brief sounding by A. H. Layard as early as the 19th century AD[168]. Oates assumes that the site, which like Tell Rimah has a polygonal city wall and a central citadel, was also a new foundation at the beginning of the 2nd millennium. The pottery he registered also seems to confirm this theory:[169]

162 Sadduwatum is tentatively identified with Tell Saadiya Sharqi (Hig. No. 410). Sadduwatum was the first known stage of the ancient Assyrian merchants and belonged to the kingdom of Andarig in the time of Zimri-Lim. See Ziegler & Langlois 2016: 291-292.

163 See above § 5.E.3. Binanu was not fortified with a wall by Haqba-Hammu until about 20 years after the writing of the letter ARM 5 43.

164 The comment Langlois 2017b: 226 is accordingly brief, but see her map in Langlois 2017a: 13.

165 Fink 2016: 65, Higeomes Nr. 396. The tell is sometimes called, perhaps incorrectly, Kharima instead of Khamira.

166 Oates 1968.

167 Ibrahim 1986.

168 Layard 1853: 252.

169 Oates 1985: 589. Altaweel 2008 mentioned only the Neo-Assyrian presence at Tell Khamira.

"Tell Khamira, 16 km. ESE of Rimah, is another somewhat smaller polygonal fortification with a central mound, controlling one of the few passes over the hills from the plain to the region of Niniveh. There has been no excavation here apart from a brief and unproductive sounding by Layard in the last century, but the surface pottery suggests much the same range of occupation as Rimah, ending probably in the Middle Assyrian period but with a considerable quantity of Late Assyrian material. There is no evidence for the date of the walls, but within their circuit there are apparently vacant areas as at Tell al Rimah, and one may reasonably assume that the two sites, given their physical similarity and comparable range of pottery, are not of widely different date."

If the identification of Sanipa with Tell Khamira proposed here is correct, the route on the outward journey from Sanipa takes a small bend to the north-east, bypasses the southern end of Jebel Ibrahim and after about 25 km arrives at Tell Abu Marya (Hig. No. 3), ancient Apqum (§ 5.F.1).

5.F From Apqum (Tell Abu Marya) to Šubat-Enlil (Tell Leilan)

Countless routes must have existed between the settlements of Upper Mesopotamia, often visible as a radial pattern of hollow ways emerging from sites. Additionally, several segments of long-distance routes can be recognized. Various efforts have been made to reconstruct the land routes of the Old Assyrian / Old Babylonian (Nashef 1987), the Roman (Dillemann 1962) and the Parthian period (Oates 1968). Additional information about well situated routes can be derived from the itineraries of travellers in the 19th and early 20th century. The map by Kiepert, published in 1896, illustrates not only Oppenheim's travel route, but also the routes of numerous other travellers and is a certain indication for favourite locations of ancient routes.

On the outward journey, the travel party took 4 days' stages from Apqum (Tell Abu Marya) to Šubat-Enlil (Tell Leilan). The distance of 114 km as the crow flies would correspond to an average daily performance of 28.5 km / day (as the crow flies), resulting in a distance of more than 30km on the ground—a considerable performance, which is an indication that the travellers could, wanted or had to cross this area quickly. Surprisingly, the place names of both the outward and return journeys are very weakly attested in the Old Babylonian documentation known so far. W. W. Hallo had already noticed this in 1964. Although the Old Babylonian text documentation has grown enormously since the 1960s, little has changed in his observation:[170]

"With Apqum, which is only a scant 15 km from the nearest point of the Tigris, that river is definitely left behind and the road once more cuts straight across open country, this time headed west-northwest approximately along the route of the modern Baghdad railway or perhaps, more precisely, parallel to this route and a little south of it. As with the shortcut to Zalipa, we therefore again are confronted by obscure geographical names which probably refer to relatively insignificant places, and two of which are so far unknown outside the Itinerary. Assuming that they were situated at approximately equal intervals of about 28-29 km from each other and from the adjacent stations, the first two caravanserais, Kiškiš and Iapturum, would lie on the Iraqi side of the modern boundary in an area which even today is practically uninhabited."

The fact that both the outward and return journeys of the Old Babylonian travellers passed through places that are little documented remains astonishing. One explanation could be that the places were road stations and not political centres. The travellers' route, according to our knowledge of the geopolitical state at the time of the RTE, passed through the political sphere of influence of the kingdom of Yussan, whose capital Razama is identified with Tell el-Hawa (Hig. No. 59). This kingdom lay north of the Sindjar Mountains and contacts between its ruler Šarraya and Zimri-Lim were friendly. At the time of the writing of the Old Babylonian Itineraries, however, i.e. at the beginning of the reign of Samsu-iluna, Mutiya, the king of the land of Apum, and Hazip-Teššub, the ruler of Yussan, were enemies, as several letters in the archives of Tell Leilan indicate. Merchants, however, were allowed to maintain their neutrality, as Ibal-El reminds Zimri-Lim in a well known letter from the Mari archives:[171]

" My lord knows that I command the nomads and that, like a merchant who crosses (territories) at war and (territories) at peace, the nomads (...) go between (territories) at war and (territories) at peace and learn in the course of their wanderings what the country is about."

If we rightly assume that our travel group consisted of merchants, they were therefore allowed to cross hostile territories according to the custom of the time. But the fact that they did not pass through Razama, the capital of

170 Hallo 1964: 73.

171 A.350+: 5-7 see bibliography in www.archibab.fr/T909. Note the treaty LT 2 (Eidem 2011: 368-386 with corrections in Charpin 2016: 149, 168-176 and remarks in Eidem 2017).

Outbound trip from south-east to north-west. As on modern maps, the easternmost toponyms are on the right, the westernmost on the left. The stages of the outward journey are to be read from right to left.									
Šubat-Enlil	Tarhuš ←					Yapṭurum ←	Kiškiš ←	Apqum-ša-Addu ←	Sanipa ←
§ 5.G.1	§ 5.F.8	§ 5.F.7	§ 5.F.6	§ 5.F.5	§ 5.F.4	§ 5.F.3	§ 5.F.2	§ 5.F.1	§ 5.E.7
→ Šubat-Enlil	→ Tarhuš	→ Libbi-gerrum	→ Lada	→ Kalizit	→ Mar-rata				Sanipa
Return trip from northwest to southeast (to be read from left to right)									

Table to § 5.F: Overview of the stages between Apqum and Šubat-Enlil (see map below Fig. 14). The order of the toponyms roughly follows the geographical orientation on modern maps: west is on the left, east on the right.

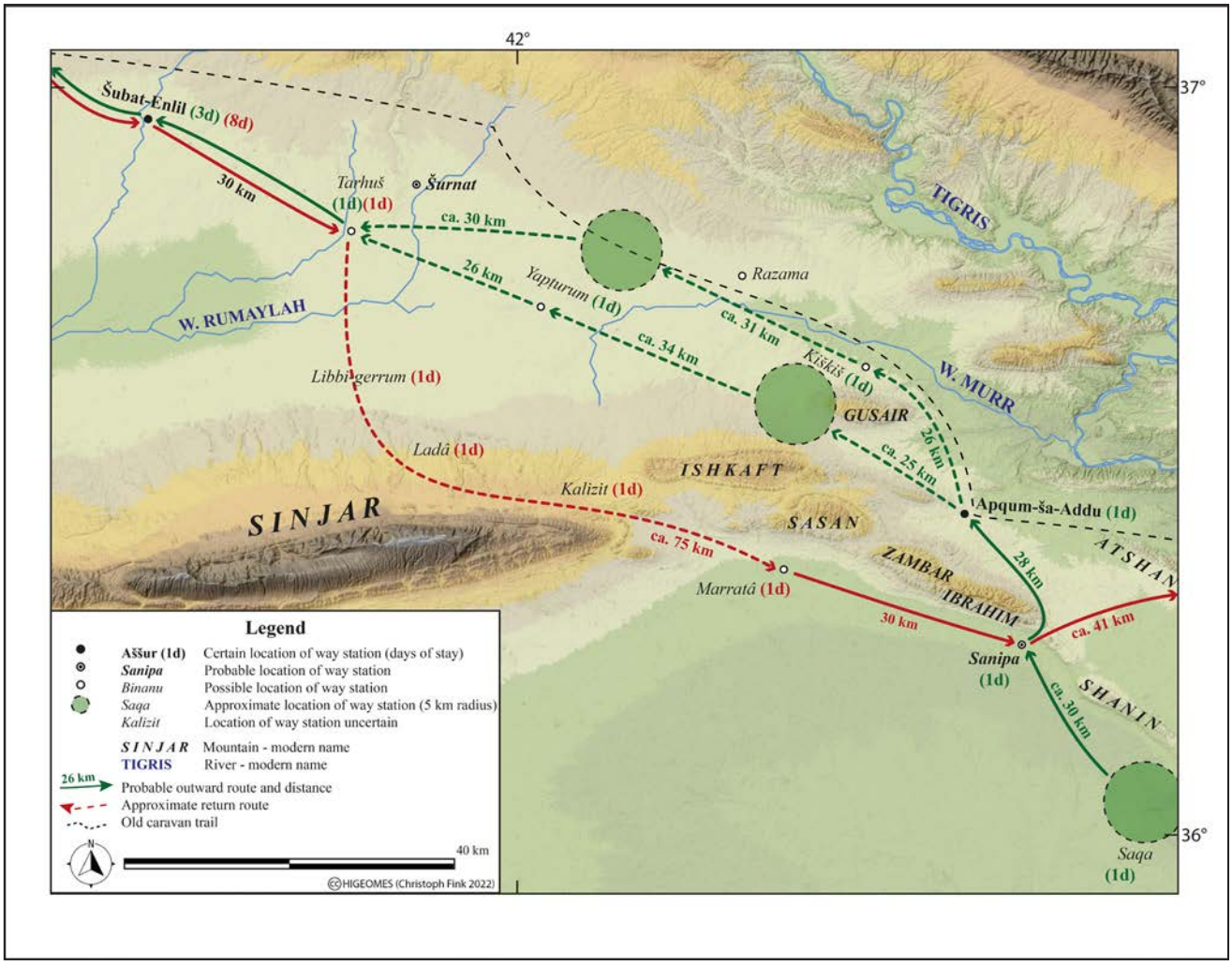

Fig. 14. Sections F from Apqum to Šubat-Enlil in the new reconstruction.

a king who was at enmity with the ruler of Šubat-Enlil, is likely to have political rather than traffic motivation.

Only a part of the area in question has been the target of surveys, and nearly no excavations have taken place in this area (see Fig. 15). The eastern part of the area was partially surveyed in the Tell el-Hawa survey[172]. This survey recorded various tells of the "Khabur period" as well as various hollow ways, some of which can be traced over long stretches and are obviously long-distance routes, some of which must have existed for thousands of years (Fig. 15). An especially wide hollow way passes south of Tell al-Hawa.[173] It can be followed as a straight line from North-West to South-East for more than 50 kilometers and connects not only 3rd millennium sites, but also Old Babylonian, Late Assyrian and Islamic ones. This "Northern route, S branch" is marked by an increased number of Khabur sites which was probably stimulated by human movement, especially trade.[174] If one were to choose this more northerly route, which runs along the Wadi Murr past Tell el-Hawa, the distance as the crow flies would be only slightly more, i.e. 118 km, which would correspond to a daily distance of 29.5 km. However, this does not seem to have been chosen[175].

Another long-distance route marked as hollow way runs approximately parallel to this route 15 km further to the south. Along this "Southern route, N branch" there was a marked increase in Old Assyrian/Old Babylonian sites, which was probably linked to intensive movement and trade.[176] These two routes constitute the quickest ways to connect the Tigris valley around Mosul with the Habur triangle, and it is highly probable that the Old Assyrian merchants generally followed one of these routes.

The southern route seems to have been popular especially in the "Khabur period", while in all other periods it is less well manifested by hollow ways and sites along the route.[177]

The main problem seems to be our relative ignorance of the historical geography of the Kingdom of Yussan. Few towns apart from the capital Razama (Tell el-Hawa) can be identified as belonging to this kingdom. We do not know, therefore, whether the places mentioned as stations on the outward and return journeys of the Old Babylonian itineraries were particularly inconspicuous settlements which we may not be able to identify with archaeological sites, or whether the toponymy of the kingdom of Yussan is still too little known and possibly larger settlements are also among the toponyms mentioned. The latter seems likely to us at least for Tarhuš (§ 5.F.8), a station at which the travellers stopped on their outward and return journeys.

Another problem concerns the historical placement of the Old Babylonian itineraries. If they can indeed be dated to the year Samsu-iluna 2 (see above § 2.6.), they would be contemporaneous with the eponymous year Habil-kenum, which is particularly well attested in the Tell Leilan archives. We know that in this year there was great political tension between the ruler of the kingdom of Apum with capital Šubat-Enlil, Mutiya, and Hazib-Teššub, king of Razama of Yussan, as we argue in § 5.F.8. These events may have been decisive for the route the travellers took.

The return route mentions four stages between Tarhuš (perhaps Tell Qoz, § 5.F.8) and Sanipa (probably Tell Khamira, § 5.E.7), which are never attested in other texts. If the identifications of Tarhuš with Tell Qoz and Sanipa with Tell Khamira are correct, the distance is exactly 100 km. Two of the stages have names that mean something like "pasture" (Mar'ata) and "middle of the way" ("Libbi gerrum"[178]). Therefore, one could formulate as very hypothetical clues that the travellers here had deliberately chosen a route that was as remote as possible and preferred to camp twice in the open countryside, perhaps because they considered this to be the lower risk. As there is no evidence for these stations, we leave this stretch of the way back open (Figs. 14 and 15). If the political problems between Apum and Yussan continued to be decisive, this route may have been even further south than the outward journey.

5.F.1 Apqum-ša-Addu = Tell Abu Marya / Maria (Hig. No. 3, certainty 3)

The travellers of the RTE stopped at two different places called Apqum[179], which is why the scribe sought to dis-

172 Wilkinson and Tucker 1995.

173 Wilkinson and Tucker 1995. See also the recent study by M. de Gruchy & E. Cunliffe (2020); they call it "Route A".

174 Wilkinson and Tucker 1995: 55.

175 See argumentation in § 5.F.8. Tarhuš.

176 Wilkinson and Tucker 1995: 55: "During at least part of the Old Assyrian empire, interregional routes reached their peak activity and the southern route and its settlements increased in importance, probably as result of the stimulus of both official movement and trade along it. Nevertheless, to judge by the concentration of large sites, the northern routes maintained their primacy even at this time." See also de Gruchy & Cunliffe 2020: 133, fig. 9.10; 9.19; they call this southern route "Route C".

177 Wilkinson and Tucker 1995: 180, fig. 37.

178 But see the variant in Text C, see § 5.F.7.

179 The western Apqum, located in the Balih area, is written in the same text A: iii 7 [*a*]*p-qum ša* ^{d}KASKAL.KUR, Text B: 33 notes phonetically *ap-ᶜqúᶜ-ú ša ba-li-ha-a*. See on this § 5.I.2.

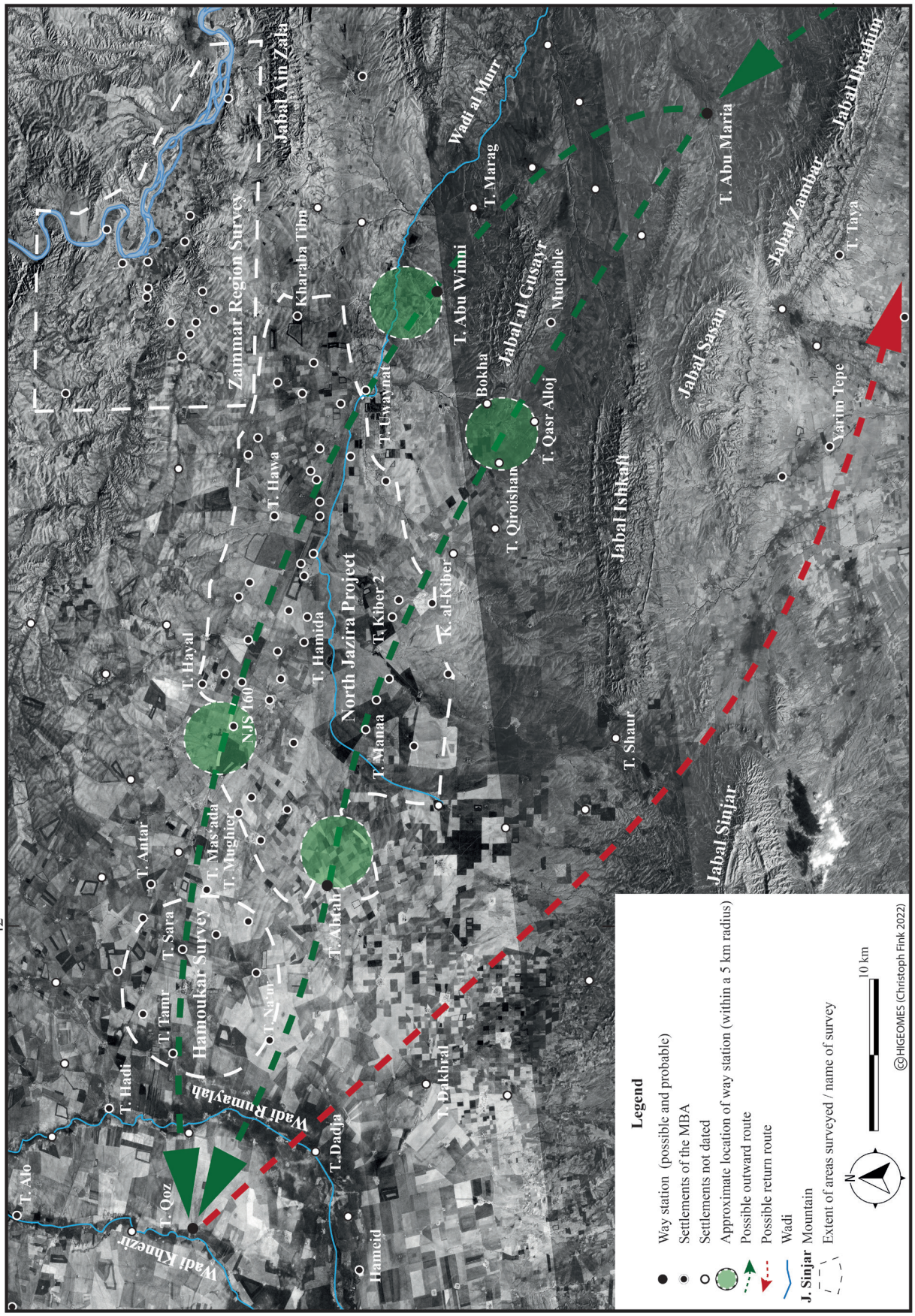

Fig. 15: RTE segment F. The routes from Apqum (Tell Abu Marya) towards Šubat-Enlil with the two possible routes of the outward journey, on the base of a Corona image.

Fig. 16: Satellite images of Tell Abu Marya showing the developed spring (arrow) that gave Apqum its name (left: Bing VirtualEarth (accessed November 2022), right: Corona image of December 11, 1967).

tinguish them by epithets in Text A, while Text B only specifically names the western Apqum.

Apqum Text A: ii 1 records *ap-qum ša* ^{d}IŠKUR. Text B: 20 marks only *ap-qum*.

The eastern Apqum, lying between the Sindjar Mountains and the Tigris, is attributed in Text A to the weather god, indicating that a sanctuary of the god Addu was located there. It is likely that this was located at the spring, which certainly gave the place its name (see below). There are no other indications for a spring sanctuary or an Addu temple.

Apqum is attested from the Old Babylonian period onwards. Several texts in the Mari archives mention the place[180]. We do not know whether Apqum still belonged to the kingdom of Karana at the time of the Mari or Tell Leilan archives, or possibly already to the territory of the kingdom of Yussan, whose territory was probably crossed in the next stages of the outward journey (§ 5.F.2-3, 5.F. 8).

The place is also mentioned in texts from Middle and Neo-Assyrian times.[181] The Semitic etymology of the toponym has already been commented on by A. Goetze[182]:

"The spelling here adopted guaranteed by the etymology which in this case can be considered as virtually certain. Later (III 7) we shall encounter *Apqum ša* ^{d}*Balīḫa* and there is no doubt whatever that it refers to the town at the large pool which is considered the source of the Balikh river. West-Semitic *'apqum*, *'apiqum* is the correct designation of such pools. It appears in Hebrew not only in the name *'Āφəq* but also in the expression ^{ca}*φīqē mayyim*; in Ugaritic it is represented by *'apq thmtm* 'the pool of the two Deeps' where god 'El resides. Apqum has been identified with the tell of Būmāriyah (see F. J. Stephens [1953]); indeed, there is to this day a copious spring at the west side of the tell forming a pool."

The spring, already well constructed in antiquity[183], is still visible on satellite images (Fig. 16). F. J. Stephens, who suggested the identification of the site, describes the tell and the history of research (Stephens 1953):

180 See evidence in Ziegler & Langlois 2016: 30-31. Cf. also the commentary by Hallo 1964: 73, who agrees with Goetze's view.

181 For the textual evidence of the Middle Assyrian period s. Cancik-Kirschbaum & Hess 2016: 15-16 s.v. Apqu, for the Neo-Assyrian documentation Bagg 2017: 49 s.v. Apku.

182 Goetze 1953: 57b.

183 Stephens 1953.

> "This mound has attracted the attention of explorers and excavators since the time of Layard. In his Ninive and its remains, (London 1849), I, 312 he describes it as an ancient artificial mound having a most abundant spring issuing from its foot. The water is collected in large well-built reservoirs. In his Discoveries in the Ruins of Niniveh and Babylon (London, 1853), 335 he says, that his workmen did some diggings here and found some bricks bearing the name of Ashurnaṣirpal. The abundant spring and large reservoir of this site are mentioned also by E. Herzfeld in F. Sarre and E. Herzfeld, Archäologische Reise im Euphrat- und Tigrisgebiet (Berlin, 1911), I, 207. (...)
> In April, 1927, E. A. Speiser surveyed the Sinjar region, including Būmāriyah. He reports in a personal letter to the writer that, 'it is a mound on the bank of a stream, the escarpment revealing pretty plainly a substantial Assyrian occupation suggesting a prominent provincial center.' In Iraq V, 135f., Seton Lloyd reports on a survey of this mound together with others in the Sinjar region."

The toponym can be identified with a high degree of certainty with Tell Abu Marya[184]. Archaeologically, the tell was mainly investigated by Seton Lloyd in the 1930s, who found Assyrian occupation in the upper layers in particular. There was probably also a Middle Assyrian palace of Aššur-reš-iši at Tell Abu Marya, as attested by an inscription found there.[185] Older levels, including those of the Middle Bronze Age, are, however, only attested on the basis of pottery.[186] But Tell Abu Marya is not only a good candidate for Apqum from an archaeological point of view. In particular, its mediating location between the Tigris and the Sinjar Mountains in the east and the Habur triangle predestine it as an important way station—to which the spring pond adds as a further favourable factor. And so it is not surprising that over the millennia almost all routes leading from the Tigris (or the city of Mosul) to the west or north-west passed through Abu Marya.[187]

5.F.2 Kiškiš

Kiškiš is a locality mentioned only in the RTE. Neither the Mari archives nor the texts from the relatively nearby Šehna (T. Leilan) mention the toponym.[188]

About 39 km and 42 km respectively from Tell Abu Marya as the crow flies, the southern route leads to two tells which were occupied in the Middle Bronze Age. The first one is Tell Kharaba al-Kibar (Hig. No. 379), a small mound of 1.8 ha, and the second is Tell Kiber (Hig. No. 378), a site of about 4.5 ha, in the vicinity of which Wilkinson and Tucker already suspected Kiškiš[189]. This distance seems quite far for a day's journey, but was probably not impossible for the RTE group, since the ground was level without major topographical obstacles such as wadis. Nevertheless, it is possible that Kiškiš was located a little further southeast at a normal distance of a day's journey from Abu Marya—an area where three tells can be identified: Qasr Alloj, Bokha and Qiroishan; however, their dating is uncertain. Since Kiškiš is otherwise not attested in texts, it is quite possible that the place was a very small station, perhaps only a village or a nomadic station. If it was a small place, it is naturally difficult to identify it today.

A slightly more northerly route would pass about 26-28 km after Abu Marya on the ground (25 km as the crow flies, but it has to bypass a ridge to the east) Tell Abu Winni, a multi-period site with significant Bronze Age occupation[190]. This tell is oval, about 450 by 300m in size, and lies on a hollow way that leads to the long-distance hollow way past Tell el-Hawa. An identification of Kiškiš with Tell Abu Winni is, however, just as uncertain as the identification with the various smaller mounds mentioned above, which lie along the hollow ways on the southern route at a distance of approximately 25-30 km from Tell Abu Marya.

5.F.3 Yapṭurum, perhaps Tell Abṭa or a tell nearby

Two toponyms "Yapṭurum" are known in Old Babylonian texts[191]. Since the etymology of the name can be traced to the verbal root "PṬR" meaning "to separate", Yapṭurum may have had a separating geographical location. It is possible that the name is due to Yapṭurum's location on a watershed[192].

Yapṭurum (1), which is better attested in the Old Babylonian texts, is the name of the kingdom of Talhayum, which is to be sought on the southern edge of Tur Abdin, perhaps in the area of the watershed between the Habur and Balih tributaries. The less well known Yapṭurum (2), mentioned in the RTE, could possibly be located in the area of the watershed between the Tigris and Habur tribu-

184 Fink 2016: 1, s.v. Abu Maria, Tall, Higeomes Nr. 3.
185 Anastasio 2007: 18.
186 For the soundings see Lloyd 1938.
187 Reade 1968: 236.
188 Ziegler & Langlois 2016: 190. Cf. also Hallo 1964: 73b.
189 Wilkinson & Tucker 1995: 55.
190 Atlas of Archaeological Sites in Iraq, Baghdad 1976: no. 96; Wilkinson & Tucker1995: Fig. 24.
191 Ziegler & Langlois 2016: 405-407. Hallo 1964: 73 suspects that it is only a caravanserai, which he locates on Iraqi territory. He notes that this border area was also sparsely populated in his time.
192 See Ziegler & Cancik-Kirschbaum 2017: 335-336.

taries. Yapṭurum (2) is only mentioned in RTE, so it could possibly be only a small settlement that was probably in the area of the kingdom of Razama (Tell el-Hawa).

If the travellers chose the southern route, as we have assumed above, they reached Tell Abṭa or Abtah (42.029250 / 36.709921) at a distance of 56 km from Tell Leilan and 59 km from Abu Marya (not to be confused with Tell Abṭa / Abṭa Shamali, Hig. Nos. 908, 909). On Corona satellite images, Tell Abṭa lies on a broad hollow way that can be traced east-southeast for 9 km, then bends slightly south and continues towards Tell edh-Dhaim, which is almost exactly the ideal straight line between Abu Marya and Tell Leilan (Fig. 15). Today, Tell Abṭa lies in Iraq 4 km east of the Syrian border and measures about 500 by 500 m. Although it has never been surveyed to our knowledge, settlement in the Middle Bronze Age cannot be ruled out, as it appears to consist of four separate mounds which could reflect different settlement periods.[193]

On the long-distance Northern route, N branch, which seems less probable to us, one arrives in the area of Tell es-Samir (Hig. No. 369) about 29 km NNW of Abu Winni. Tell es-Samir is a substantial settlement, over 20 ha in size, which shows occupation in the Khabur period (Wilkinson and Tucker 1995, no. 93). Based on the rare textual evidence, however, Yapṭurum could also be located in one of the numerous smaller mounds with Middle Bronze Age pottery noted in the survey by Wilkinson and Trucker 1995 (e.g. their nos. 160, 132 or 131); therefore we prefer to mark the calculated area with a circle (Fig. 15).

5.F.4 Mar'ata, perhaps Yarim Tepe

Several spellings are known for the toponym Mar'ata. The RTE texts reflect this very well, noting the place in text A: iii 30 *mar-ra-ta-a* while text C: 8 has *ma-ar-a-ta*. Text C was written on the way and seems more trustworthy than text A written once the traveller was back home. The toponym may perhaps be derived from *re'ûm* "to graze".[194] As the spellings vary, so do the localisations of the toponym. In MTT I/1 we put two homonyms Mar'ata (1) and (2), and located the RTE toponym with Mar'ata (2) near the Tigris, while Mar'ata (1) should be sought between Aššur and Šubat-Enlil, south of Qaṭṭara.[195] This separation between Mar'ata (1) and (2) no longer seems compelling to us today. Perhaps all the evidence points to a single place?

A letter from the archives of Tell Rimah (Qaṭṭara) mentions Mar'ata in the same breath as a mountainous area[196].

The Mar'ata mentioned on the return trip of the RTE was a day's journey distant from Sanipa = Tell Khamira (§ 5.E.7), probably west or west-northwest of it, at a distance of about 30 km. This could be the same place mentioned in ARM 4 29 as a stage between the "city"(= Aššur) and Šubat-Enlil via Qaṭṭara.

If the etymology of the place name is meaningful, Mar'ata was a settlement devoted to cattle breeding and belonged to the kingdom of Karana at the time of the RTE. It was conveniently located on a fast route between Šubat-Enlil and Aššur, perhaps not on the more convenient main route.

We therefore assume that the site may have been located near the southern edge of Jebel Sinjar or its eastern extensions, Jebel Sasan and Jebel Zambar—an area that was always sparsely populated but offered ideal grazing grounds.

Yarim Tepe is a possible candidate in this area, 30 km as the crow flies from Tell Khamira, the suggested location of Sanipa. Yarim Tepe consists of a cluster of smaller tells[197], which were investigated by Soviet scholars from 1969 to 1980. Mainly construction phases of the Hassuna and Halaf periods were discovered, more than 6 m in depth. Later periods such as the Middle Bronze Age were only detected on the basis of pits and the associated pottery[198]. A larger Middle Bronze Age settlement cannot be assumed on this basis, but it could very well be a smaller settlement specialised in agriculture or livestock farming, as attested for earlier periods. The Soviet archaeologists did not excavate all the tells, and this is why the hypothesis of locating Mar'ata in Yarim Tepe seems reasonable.

5.F.5 Kalizit

We know of no other evidence for this toponym which is spelled *ka-li-zi* in text A: iii 29, while text C: 7, has *ka-*⌜*li*⌝*-zi-*⌜*it*⌝. We suspect that the place name written by the scribe of text C on the way is the more correct version. It seems unlikely to us that it is a variant of the Old Assyrian

193 Wilkinson & Tucker 1995: 55 tentatively name Tell Mana'a, which is said to have grown considerably in the Khabur period, as a candidate for Yapturum or Kiškiš.

194 Goetze 1953: 63-64, who only knew the spelling *Mar-ra-ta*, assumed that the name could allude to "salt marches of the regions south of the Jebel Sinjār", probably because he interpreted a derivative of the Semitic root MRR.

195 Ziegler & Langlois 2016: 215-217. Explicitly Langlois 2017b: 216.

196 OBTR 139, see the comment in Langlois 2017b: 216.

197 Ibrahim 1986: 66.

198 Merpert & Munchaev 1987: 2–3.

Kalluzanum.[199] We propose a location of this toponym, as well as that of Lada (§ 5.F.6.), somewhere between the Jebel Sinjar and the Jebel Ishkaft, in an area characterized by pastoralism (Fig. 14).

5.F.6 Lada

Lada is so far only attested in the RTE texts.[200] A. Goetze suggested that the toponym could be equated with the well-known Allahad of the Mari archives.[201] This hypothesis can be ruled out today thanks to better evidence.[202]

5.F.7 Libbi-gerrum?

The toponym poses real epigraphic difficulties. In text A: iii 27, which is the final version of the list and was written after the return of the travellers, it is very likely that ŠÀ'-*bi*(-)*ge-er-rum* "Libbi-gerrum" is read, the etymology of which was probably "middle of the way", but which was perhaps taken as a genuine toponym, since it has no genitive ending. This is the form in which the place name was recorded in MTT I/1.[203] In text C: 5, which seems to have been written on the way and is therefore closer in time to the toponymic reality, the toponym is difficult to read, but seems to be ŠÀ! BI KIB ⌜NA⌝. Interpretations vary between *Babigerrum* and *libbi*(-)*gerrum*. Perhaps the compiler of text A also had problems deciphering the toponym and reinterpreted the place name.

A. Goetze, the editor of the two texts A and C, commented:[204]

> "*Ba-bi-gi-ir-rum*: The reading is difficult, since the first sign is damaged in the main text; the initial *ba* is taken from the small duplicate. There, however, a clear *Ba-bi*-KIB-*na* is read. Harmonization can be achieved by assigning to KIB the value gir_x attested in CT XLI 47 1. 45. Babigirrum (Babigirna) is so reminiscent of the (lacus) Beberaci of the Tabula Peutingeriana that identity is likely. Today the name of the lake, so surprising a feature in the steppe of Upper Mesopotamia, is Haṭṭuniyyah."

W. W. Hallo does not oppose this proposal, but notes that[205]

> "It is at least conceivable, however, that we are to read A iii 27 as *lib-bi Gi-ir-rum* and its variant in C 5 as *lib-bi* (GIR-RI_x(KIB)^{rum}.KI 'in the midst of Girrum'? as in B 30;"

and in a footnote he adds[206]:

> "For KIB = $girri_x$, cf. Goetze, p 63 and the references in Hallo, HUCA 33 (1962) 9f., note 67. The form of the sign, and the possible connection with Akkadian *girrum* (for a different etymology, cf. however Albright, BASOR 163: 41, note 25) suggest that $girri_x$ may have had a meaning like crossroads."

If the identification of Tarhuš (see § 5.F.8 below) with Tell Qoz is correct, the stop can be sought 20 – 25 km to the south-east of it. Whether this is a regular toponym or a reference to camping on the route in grammatically questionable wording cannot be decided. No archaeological site can be proposed for it (Fig. 14).

5.F.8 Tarhuš, perhaps Tell Qoz (certainty 1)

Tarhuš[207] like the other topoyms of the stretch of road between Apqum and Šubat-Enlil, is only mentioned in the Old Babylonian itineraries[208], although the road between Ekallatum and Šubat-Enlil was certainly particularly well developed and frequently used at the time of Samsi-Addu.

Tarhuš must be sought a day's journey southeast of Šubat-Enlil, so it was certainly in the Habur Triangle, on the territory of modern Syria. Interestingly, the travellers of the Old Babylonian itineraries stopped at this place both on the outbound trip and on the way back, so it must have been well situated in terms of transport, had an infrastructure that satisfied them, or was an important crossing point of a river. This makes it all the more astonishing that the toponym is not attested in any text known to us in the archives from Tell Leilan. We assume that Tarhuš lay on the border between the kingdom of Apum with capital Šubat-Enlil/Šehna (Tell Leilan, Hig. No. 83) and the

199 For the latter see Langlois 2017b: 213.

200 It is interesting that the place name in both texts is written with two lengthened vowels. A: iii 28 and C: 6 note *la-a-da-a*. For the research bibliography, see Ziegler & Langlois 2016: 199. The hypothesis expressed there in the commentary that Lada might have to be sought in the area of the Wadi Murr no longer seems compelling to us.

201 Goetze 1953: 63.

202 For Allahad see attestations and proposals of identification in Ziegler & Langlois 2016: 17-18. An identification with Tell Hadhail (Hig. No. 716) south of Jebel Sinjar is possible.

203 Ziegler & Langlois 2016: 204, interpreted it as place name.

204 Goetze 1953: 63b.

205 Hallo 1964: 83b.

206 Hallo 1964: 83 n. 25.

207 The site of Tell Qoz dates possibly to the Middle Bronze Age (see below fn. 211). It has not been integrated into the HIGEOMES sites' database, since relevant reports are missing.

208 Ziegler & Langlois 2016: 359. Tarhuš has been discussed by Goetze 1953: 57b, 63b, but he searched for it too far to the west on the Djaghdjagh, since he identified Šubat-Enlil with Chagar Bazar.

kingdom of Yussan with its capital Razama (Tell al Hawa, Hig. No. 59), but already belonged to the possessions of Razama.

In our view, this hypothesis allows us to distinguish between the two possible routes. Unfortunately, both Yapṭurum (§ 5.F.3) and Tarhuš lie outside the intensively surveyed area around Hamoukar[209], so that our assumption cannot be confirmed archaeologically (see Fig. 14).

If the travellers had chosen the slightly more northerly route, Tarhuš would have been in the immediate vicinity of the important Middle Bronze Age settlement of Tell Hadi (Hig. No. 784), the Old Babylonian Šurnat, which was a well-militarised border fortress of the kingdom of Apum and lies 33 km ESE of Šehna[210]. This localisation of Tarhuš in the vicinity of Tell Hadi is conceivable, but it seems astonishing to us that the travellers did not stop at Šurnat (Tell Hadi) either on the way there or on the way back. This "northern" hypothesis therefore seems less likely to us.

On the southern route, about 28 km SE of Tell Leilan, the direct route passes Tell Qoz, a roughly 25 ha large, oval tell situated directly east of a larger watercourse. The settlement history of the tell is unfortunately unknown so far. We consider it an ideal candidate for Tarhuš. W. W. Hallo had also already expressed this assumption[211]:

> "(...) Tarhus, could he equated with the modern Tell Qoz on the Wadi Chneyzir, some 20 km inside the Syrian frontier, and near the southeastern limit of the cultivated valley of modern Haseke province. However, the most prominent tell in the immediate vicinity is Hamukar, and since it is a Middle Bronze site, perhaps it represents Tarhus."

W. W. Hallo's suggestion to equate Tarhuš with Tell Hamoukar, on the other hand, can be ruled out, as there is no evidence of a settlement at Hamoukar in the Middle Bronze Age.[212] Moreover, at a distance of 43 km, it would be too far from Tell Leilan to serve as a stop on the outward and return journey.

5.G From Šubat-Enlil (= Tell Leilan) to Ašnakkum (= Chagar Bazar)

Outbound trip from east to west. As on modern maps, the easternmost toponyms are on the right, the westernmost on the left. The stages of the outbound journey are to be read from right to left.				
Ašnakkum		Šuna ←		Šubat-Enlil ←
§ 5.H.1	§ 5.G.4	§ 5.G.3	§ 5.G.2	§ 5.G.1
→ Ašnakkum	→ Urkiš	→ Šuna	→ Harzi	 Šubat-Enlil
Return trip from west to east (to be read from left to right)				

Table to § 5.G : Overview of the stages between Šubat-Enlil and Ašnakkum (see map Fig. 17).
The order of the toponyms roughly follows the geographical orientation on modern maps: west is on the left, east on the right. For this reason, the outward journey is to be read in the second column from right to left.

The reconstruction of the ancient land routes in the Habur triangle is especially difficult, since the region has been for the past 70 years (at least until 2010) intensively used for agriculture, being one of Syria's "breadbaskets". Additionally, the site density is enormous, especially along the numerous small water-courses, and their multi-period structure makes the reconstruction of ancient routes very challenging. A large number of surface surveys provide abundant data about the occupation history of this region.[213] According to these surveys, more than 400 sites in the Habur triangle were occupied in the Middle Bronze Age.[214] Except for a few large urban centres, most settlements are small villages which have been explained by strong nomadic presence in the early second millennium BC[215]. The reconstruction of the trade routes of the Old Assyrian period is not really useful for the work with the RTE[216], as there is little evidence of these southeastern stages, and in some cases completely different places were visited. However, there is evidence that the ancient Assyrian merchants stopped at one place: at *kārum Apum*, which was connected to Šubat-Enlil/Šehna, i.e. Tell Leilan. (s. § 5.G.1).

209 Ur 2002: 74, Fig. 14: Khabur settlement in the THS area.
210 For Šurnat see Eidem 2008: 302-303 and Ziegler & Langlois 2016: 353.
211 Hallo 1964: 73b.
212 Ur 2010: 110–112.
213 Meijer 1986; Eidem & Warburton 1996; Lyonnet 2000; Ristvet 2008; Ur & Wilkinson 2008; Ur 2010; see also Palmisano & Altaweel 2015.
214 Fink 2016; Palmisano & Altaweel 2015: 217.
215 Ristvet 2008.
216 Forlanini 2006; Kolinski 2014.

5.G.1 Šubat-Enlil = Tell Leilan (Hig. No. 83)

The identification of Tell Leilan with Šubat-Enlil looks back on a long historical research.[217] A. Goetze had still advocated an identification with Chagar Bazar,[218] but already W. W. Hallo in 1964 placed the town correctly in Tell Leilan.[219] In his view, two arguments spoke in favour of this. First, it was a day's journey away from Tell Qoz, which W. W. Hallo had mentioned as a suggested identification for Tarhuš (§ 5.F.8); and second, researchers, most notably W. J. van Liere, had placed this identification on a solid basis. But the identification was not yet a certainty at the time of Hallo. The first written evidence from the excavations at Tell Leilan provided a connection with Apum. D. Charpin was able to establish the connection between the country name Apum, as well as the town names Šehna and Šubat-Enlil, and prove that the latter two names could be used for Tell Leilan.[220] He based his argumentation on Mari texts as well as on the name of Samsu-iluna's 23rd year, in which the Babylonian king commemorated the capture of the city and the victory over Yakun-ašar:[221]

> "The year: Samsu-iluna, the king, by the fierce power which Enlil gave him, destroyed Šahna, the capital city of the land of Apum, Putra, Šuša, ..., and [...] Yakun-ašar ... Yakun[...]"

This campaign of Samsu-iluna apparently brought the city to an end in 1728 BC. The final proof of this identification, however, the structure and history of this major city during the 3rd and—after an occupational hiatus of c. 2100 until c. 1900 BC—the early 2nd millennium, are the results of years of excavations at Leilan under the direction of Harvey Weiss.[222]

Šubat-Enlil / Šehna[223] was the capital of the country of Apum. "Apum" was probably also the name given to the *kārum* station of the mainly Old Assyrian merchants:[224] the city was therefore particularly well prepared for the stay of traders. Assyrian merchants also concluded a treaty with Till-Abnu, the ruler of Apum, which was supposed to guarantee the protection of the merchants from Aššur.[225]

Šubat-Enlil was the largest fortified center in the Eastern Habur triangle during the days of the RTE. It was a station on the caravan route from Aššur to Cappadocia,[226] called Apum, and it is possible that the route passing by Tell Leilan has existed for millennia. To this day, the major land route across northern Mesopotamia leading from Nisibin to Mosul passes west-east only a few kilometers north of Tell Leilan.[227] The 90 ha site is encompassed by a city wall rising from 5-15 m above plain level. Within these walls, there was certainly enough space to stay safely in the lower town. The travellers stopped here for three days on the outward journey. On the way back, they even stayed for eight days. We assume that at least the longer stay on the return trip was not voluntary, but must be attributed to adverse political circumstances. In their choice of the following stages of the return journey (§ 5.F.7–5.F.4), the travel group apparently tried to make up for lost time.

5.G.2 Harzi / Harrusi

The toponym Harzi / Harruzi of the Old Babylonian itineraries could be identical with other place names of the Tell Leilan and, more rarely, the Mari archives, which had the form Huraṣa or Huraṣan[228] and were perhaps located south of Tell Leilan, since it is sometimes mentioned in connection with the city Kurda and a man named Šepallu, perhaps the ruler of Karana. Why the travellers had to make a stop on their return journey in this town, for which no localization can be proposed, is unclear. On the outward journey, they had moved directly from Šubat-Enlil to Šuna.

On the return trip, however, they already had to stop in Šuna for 26 days—an unusually long time. This had probably been made necessary by the political circumstances. Perhaps the travellers had hoped to bypass Šubat-Enlil in the south. This had perhaps been denied them. They remained in Šubat-Enlil for another 8 days before they were able to return home as quickly as possible, which led them

217 For more details see Charpin 1987: 129.

218 Goetze 1953: 58. Unfortunately this wrong identification influences also the supposed localisation of the neighboring stations, notably Tarhuš (§ 5.F.8).

219 Hallo 1964: 73b-74a.

220 Charpin 1987.

221 Horsnell 1999: 211-212 with transliteration and discussion. Further references in https://www.archibab.fr/N82.

222 Weiss 1985; Weiss 2003; for the abundant literature on the excavations at Tell Leilan, see https://leilan.yale.edu/publications/all.

223 Attestations in Ziegler & Langlois 2016: 342-345. Interestingly, the toponym is spelled differently in the three texts of the RTE (see § 2.7). Text B: 24, composed at the end of the outbound journey has a scholarly *šu-ba-at-*^{d}EN.LÍL.LÁ. Text C: 3, written during the return trip has the most usual *šu-ba-at-*^{d}EN.LÍL. Text A: ii 5, iii 25, written back to Larsa has twice *šu-bá-at-*^{d}EN.LÍL.

224 Veenhof 2008: 154-155 passim.

225 LT 5 in Eidem 2011: 417-426.

226 Nashef 1987.

227 Weiss *et al*. 1990: 534.

228 Accordingly Ziegler & Langlois 2016149-159 s.v. Huraṣa. Hallo 1964: 83a localises Harzi Harruzi close to Naṣibina.

first to the territory of the kingdom of Karana, then by stealth to the Tigris, where they perhaps moved east of the river to the south.

So Harzi was probably a first attempt to get south, but it went wrong.

5.G.3 Šuna, perhaps Tell Mohammed Kabir (Hig. No. 473, certainty 1)

Šuna[229] was an important city in the Habur Triangle in Old Babylonian times, certainly not inferior in importance to places like Urkiš, Ilan-ṣura, Kahat and some others.[230] Various localisation proposals are available. However, since Šuna must have been located halfway between Tell Leilan and Chagar Bazar, the distance as the crow flies between these two towns being 55 km, and since at least four branches of the Habur had to be passed on the way, including the Jaghjagh, a very direct route must have been chosen, which is why many of these suggestions can be ruled out. The most likely location is on the Jaghjagh about halfway between Tell Hamidiyah and the present-day town of Qamishliye. The most likely site is Tell Muhammad/Mohammed Kabir (Hig. No. 473), a tell of about 12 ha in size and 35 m in height, which was surveyed by Diederik Meijer in 1976-1979[231] and by Seyyare Eichler and Markus Wäfler in 1984,[232] and which has material from the Middle Bronze Age.[233] F. di Filippo in his study of the RTE also came to this conclusion and localised Šuna at this point of the Jaghjagh:[234]

> "These sites (Tell Muhammad Kebir and Tell Muhammad Seghir), or the nearby settlement at Tell Dahab, ca. 1 km on the south (Ur 2010, map 3), are all good candidates for the localisation of Šuna. Unfortunately, however, there is no evidence for dating the archaeological phases at Tell Dahab, wheras the complex of mounds at Tell Muhammad Kebir and Tell Muhammad Seghir shows traces of occupation of the Middle Bronze age."

We follow the identification of Šuna with Tell Muhammad Kabir here, although in 2016 we had suggested in our collaborative work MTT I to equate the latter Tell with Amursakku.[235] Interestingly, first doubts arrouse already in MTT I/2 on this proposal which was developed in common. E. Cancik-Kirschbaum and C. Hess wrote:[236]

> "While Middle and Late Bronze Age evidence has been found for the neighbouring Tall Muḥammad Saġīr, Late Bronze Age evidence is lacking for Tall Muḥammad Kabīr. It is not implausible, however, to think of the possibility of the ''Wechselhügel' (alternate mounds)', so that the centre of the 2nd millennium is to be sought here."

We now defend an identification of Šuna with Tell Muhammad Kabir (Hig. No. 473). Between the latter and Tell Muhammad Saghir (Hig. No. 625) lie 3 km only, so that Tell Muhammad Saghir could possibly be equated with Amursakkum (aBab.)/Amasakku (mAss) and Masaka (nAss).

Šuna was important in Old Babylonian times. The city does not seem to be attested in more recent texts,[237] while Amasakku grew in importance over the centuries. It replaced Šuna in its geopolitical role. Šuna – Amursakkum may have been two nearby sites identified respectively with Tell Muhammad Kabir (Hig. No. 473) and Tell Muhammad Saghir (Hig. No. 625).

5.G.4 Urkiš = Tell Mozan (Hig. Nr. 92, certainty 3)

Thanks to the many years of excavations under the direction of Giorgio Buccellati and Marylin Kelly-Buccellati, Urkiš is undoubtedly identified with Tell Mozan, which lies in the fertile Habur triangle at the foot of the Tur Abdin. It was one of the most important cities in northern Mesopotamia and the capital of the Hurrians in the 3rd millennium, losing much of its political importance in the

229 The spelling of this toponym with a long final A should be noticed. All three texts, A: ii 6; A: iii 23; B: 25 and C: 1 note likewise *šu-na-a*.

230 Ziegler & Langlois 2016: 349-351. The commentary by Hallo 1964: 74 suggests that Šuna could be identified to "Tell Hamedi", probably Tell Hamidiyah Hig. No. 54, for which an identification with Tadum is preferred today.

231 Meijer 1986.

232 Eichler & Wäfler 1985.

233 C. Fink notes that a name like Mohammed Kabir in particular would obscure any former name, so that no survival of toponymy may be expected.

234 Di Filippo 2016: 470.

235 In MTT I we proposed to equate Tell Muhammad Kebir with Old Babylonian Amursakkum (Ziegler & Langlois 2016: 23-24), still known in Middle Assyrian times as Amasakku (Cancik-Kirschbaum & Hess 2016: 12-13), and in Neo-Assyrian times as Masaka (Bagg 2017: 394). For the site see Fink 2016: 78, Hig. No. 473.

236 Cancik-Kirschbaum & Hess 2016: 13: "Während mittel- und spätbronzezeitliche Befunde für den benachbarten Tall Muḥammad Saġīr nachgewiesen sind, fehlen die spätbronzezeitlichen jedoch bisher für Tall Muḥammad Kabīr. Es ist jedoch nicht unplausibel an die Möglichkeit des 'Wechselhügels' zu denken, so dass das Zentrum des 2. Jahrtausends hier zu suchen ist."

237 On the contrary, di Filippo 2016: 470 suggests, that the Neo-Assyrian *su-né-e* could be identified with Old Babylonian Šuna.

2nd millennium, but continuing to exist mainly because of its religious significance.[238]

The traveller's party deliberately approached the city on the way back, accepting a diversion of one day compared to the direct route. The motivation of this is unknown but we have seen above that the way was blocked for the travellers. Perhaps Urkiš was a first attempt to bypass the kingdoms of Apum and Razama which failed. See for another possible attempt above § 5.G.2 (Harzi).

The numerous textual records of Old Babylonian Urkiš are collected in MTT I[239]. Records in the Tell Leilan archives are sparser, but nevertheless J. Eidem suspects that Urkiš was the capital of a kingdom to which Ašnakkum belonged, too. The ruler of Urkiš was probably Yanṣib-Hadnu.[240] A. Goetze did not know the localisation of Urkiš then, but he wrote a detailed commentary on the sources available at that time.[241]

5.H From Ašnakkum to Harran

166 km as the crow flies separate Ašnakkum (Chagar Bazar) and Harran, but the outward and return trips do very different stops. On the outward journey, the travellers pass five localities that have not yet been clearly identified. As the crow flies, they would thus travel an average of 27.7 km per day, a good daily average. On the return journey[242], on the other hand, the travellers stopped at 12 stations before reaching Ašnakkum, where they then also had to stay for 10 days—a daily average of less than 13 km as the crow flies, which is quite unusual. Moreover, on the way back they stayed in Ašnakkum for 10 days and in Šuna for 26 days—a conspicuously long time that cannot be explained by any trade but is more likely to be due to political problems, such as unrest, revolts, enemy inhabitants, nomads, etc. In fact, we have the impression that the return journey was already stalled before, from Harran, since the travellers stayed two days in Haziri (§ 5.H.16), and—if we reconstitute the route correctly—seem to have covered unusually short distances. Exactly which route the return journey took is not clear, because not a single one of the stops between Admum and Alan has been archaeologically secured. Nevertheless, many arguments suggest that the travellers deliberately chose a detour and that the return journey took place along the foothills of the mountains (Fig. 17).

This route from the western Habur area to the Balih area was dealt with intensively in the ANR/DFG funded HIGEOMES project. The route was first calculated by our

Outbound trip from east to west. The easternmost toponyms are in the lower half of the table on the right, the westernmost in the upper half of the table on the left. The outward journey is to be read from bottom right to top left.								
Harran					Samu'e ←	*libbi šād Hasam u Aba* ←		
§ 5.I.1	§ 5.H.17	§ 5.H.16	§ 5.H.15	§ 5.H.14	§ 5.H.13	§ 5.H.12	§ 5.H.11	§ 5.H.10
→ Harran	→ Sarda	→ Haziri	→ Admum	→ Huburmeš			→ Palda	→ Tunda

					Mammagira ←	Panahzu ←	Alan ←	Ašnakkum ←
§ 5.H.9	§ 5.H.8	§ 5.H.7	§ 5.H.6	§ 5.H.5	§ 5.H.4	§ 5.H.3	§ 5.H.2	§ 5.H.1
→ Kubšum	→ Bakitanum	→ Musilanu	→ Buš'anum	→ Masmenum			→ Alan	Ašnakkum
Return trip from west to east (to be read from the upper half of the table on the left to the lower half on the right)								

Table to § 5.H : Overview of the stages between Ašnakkum and Harran (see map Fig. 17). The arrangement of the toponyms roughly follows the geographical orientation of the stages on modern maps, west is on the left, east on the right. For space reasons the table is divided into two halves: For this reason, the outbound journey begins in the lower half of the table first line on the right and ends in the upper half on the left.

238 Buccellati 2019 ; Kelly-Buccellati 2013. For preliminary reports see the series UMS – Urkesh/Mozan Studies. More literature is available at https://urkesh.org/main/main3a.htm. Hallo 1964: 70 thought an identification with Amuda was assured.

239 Ziegler & Langlois 2016: 385-386.

240 Eidem 2011: 33-34.

241 Goetze 1953: 63a questions whether Ha-wi-li-um mentioned in Old Akkadian sources, where Tiš-Atal built a Nergal temple, can be likened to the Old Babylonian Kawila.

242 On the return route, see also Hallo 1964: 82. He assumes that the travellers first went via Admum and Hu(bu)rmeš towards the Euphrates, then branched off to the east and went along the Wadi Jirjib towards Ras al ʿAyn.

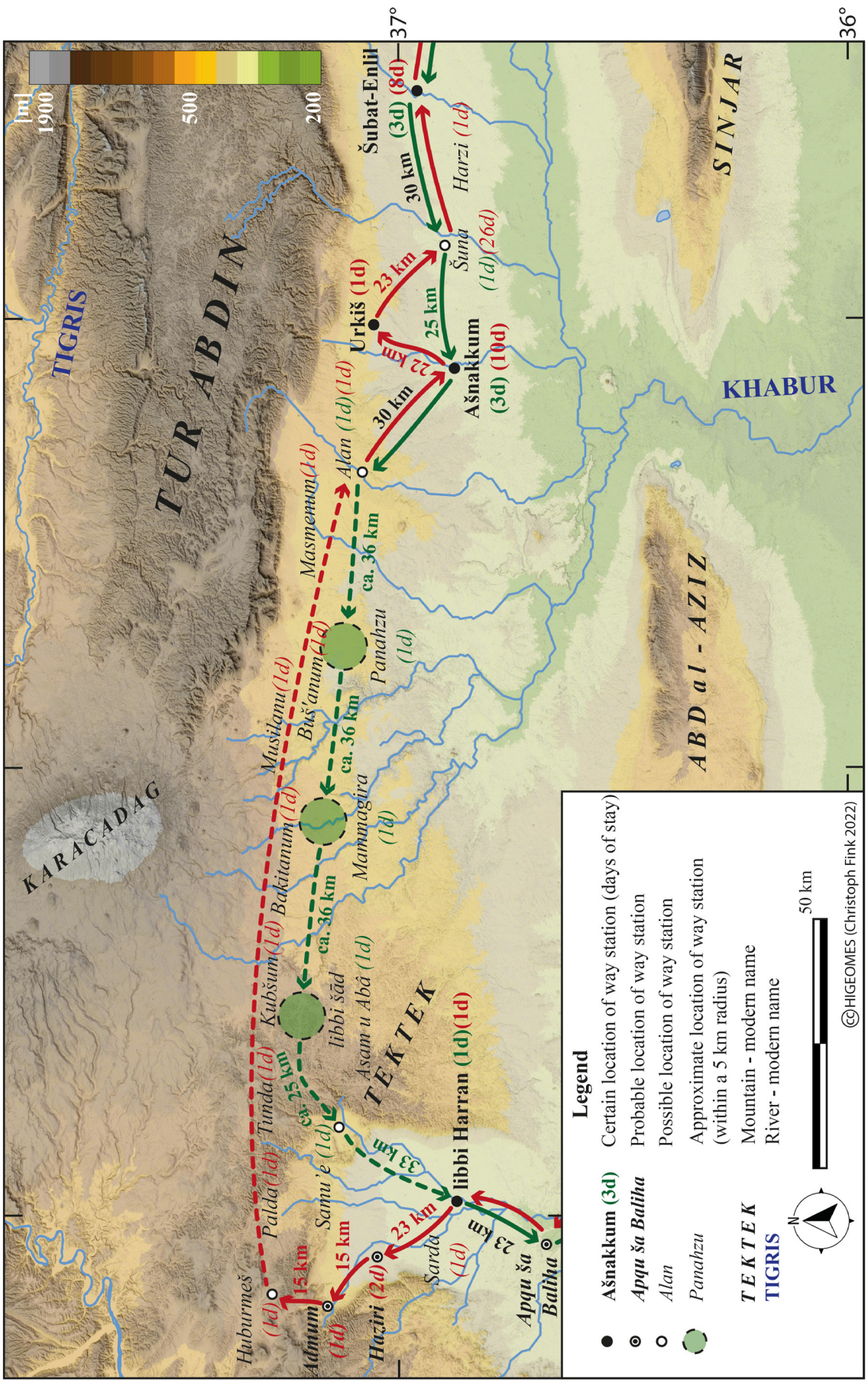

Fig. 17: RTE sections G and H between Šubat-Enlil and Harran.

cooperation partner Kai-Christian Bruhn (i3 Mainz) using least cost path analysis (LCP), then C. Fink searched for possible candidates along the calculated route. The results were presented in papers in 2012, 2015 and 2016, but not published, because we were not convinced by the outcome, especially because Middle Bronze Age sites are missing along the calculated route.[243]

In the meantime, an interesting article by F. di Filippo was published, which deals with the same route and also uses the LCP method.[244] F. di Filippo describes his approach and assumes that the outward route from Šubat-Enlil to Harran chose the shortest route, while on the way back a diversion through the mountains was taken, for which he relies mainly on preliminary work by Massimo Forlanini. It is therefore understandable that his results for the outward journey are very similar to those we had obtained through mechanistic modelling (see Fig. 18a). However, several reasons have since led us to no longer consider the route reconstructed by calculation as the most probable one, as we will explain below.

Figure 18a shows our 2012 attempt to determine the route between Ašnakkum (Chagar Bazar, Hig. No. 66) in the centre of the Habur Triangle and Harran (Hig. No. 57) on the upper reaches of the Balih using LCP. K.-C. Bruhn nick-named the course "Route 66" because the starting point Chagar Bazar bears the Higeomes Number 66. Between Ašnakkum and Harran, which are 167 km apart as the crow flies, 5 stations are mentioned on the outward route, all of which had not been identified earlier:

> Alan — Panahzu — Mammagiri — *libbi šād Asam u Aba* — Samu'e.

The distance makes a calculated average of 27.83 km as the crow flies per day. It is difficult to understand why the return route comprised as much as 12 stations, why this obvious diversions was chosen and where this route led along. Therefore, let us first consider the outward route.

The geoinformatics method is based on relief dynamics. With the help of satellite images, a 3D image of the region was constructed, from which the relief dynamics can be precisely calculated and read. The calculation of the least cost path on this route only takes gradients and slopes into account (Fig. 18a). Two different, theoretically possible routes were calculated by K.-C. Bruhn[245]: one weights the gradient strongly, the other less strongly (red and green line, respectively). The results are surprisingly similar: the route with strong weighting of the gradient is 189km long, the other 180km. For other factors that could have influenced a route calculated only on the basis of the terrain gradient, i.e. natural conditions, water points or political factors that can cause detours, see above § 1.1. These push and pull factors are not taken into account in the map shown in Fig. 18a.

However, when the calculated path distances are underlaid with the distribution of archaeologically known sites of the second millennium, doubts may arise about the probability of this calculated route. There are virtually no archaeological sites on an approximately 90 km long section of the path (the area west of the Habur triangle), and in fact not a single site from the Middle Bronze Age (Figs. 18a, 18b). Along the calculated path, there are no second millennium sites (blue dots) outside the river valleys, and only a vanishingly small number of period-unspecific sites (red dots) from Olof Pedersén's ANE list. The area can almost be described as archaeological no-man's land. Were there no sites there, or are they only unknown because no survey has ever taken place there, with the exception of the Wadi Hamar survey around Tell Chuera?

To answer this question, C. Fink studied all the available satellite images and maps. With the help of Russian military maps of the 1940s and the Corona images of the 1960s, several tells could be identified close to the calculated route (marked as yellow dots, Fig. 18b). However, the date of the red and yellow marked sites is unclear, so that, for example, the identification of Samu'e with a Tell named Adwanija, marked on Russian maps 25 km southeast of Harran, which would lie exactly on the calculated line, cannot be postulated.

However, both the path reconstruction attempts shown here as Fig. 18ab and the aforementioned attempt by Di Philippo 2016 should be rejected for several reasons. First of all, there actually seem to have been virtually no Middle Bronze Age sites between the westernmost tributary of the Habur and the Balih. For example, during the Wadi Hamar Survey, which was carried out in the vicinity of Tell Chuera from 1997 onwards, a dense settlement of this region was recorded for the 3rd millennium BC, while hardly any sites were recorded for the Middle Bronze Age when the area seems to have become deserted.[246]

243 K.-C. Bruhn calculated the stations of this route with the help of the Least Cost Path, Christoph Fink worked out the route further with the help of various old maps and aerial photographs and searched for suitable sites.

244 Di Philippo 2016 is very useful. However, we do not agree with his dating of the Old Babylonian itineraries in the reign of Samsi-Addu (di Philippo 2016: 452), see above § 2.2.

245 We thank K.-C. Bruhn for his cooperation and calculation of the least cost path.

246 Pruss 2005; Hempelmann 2013: 188-190.

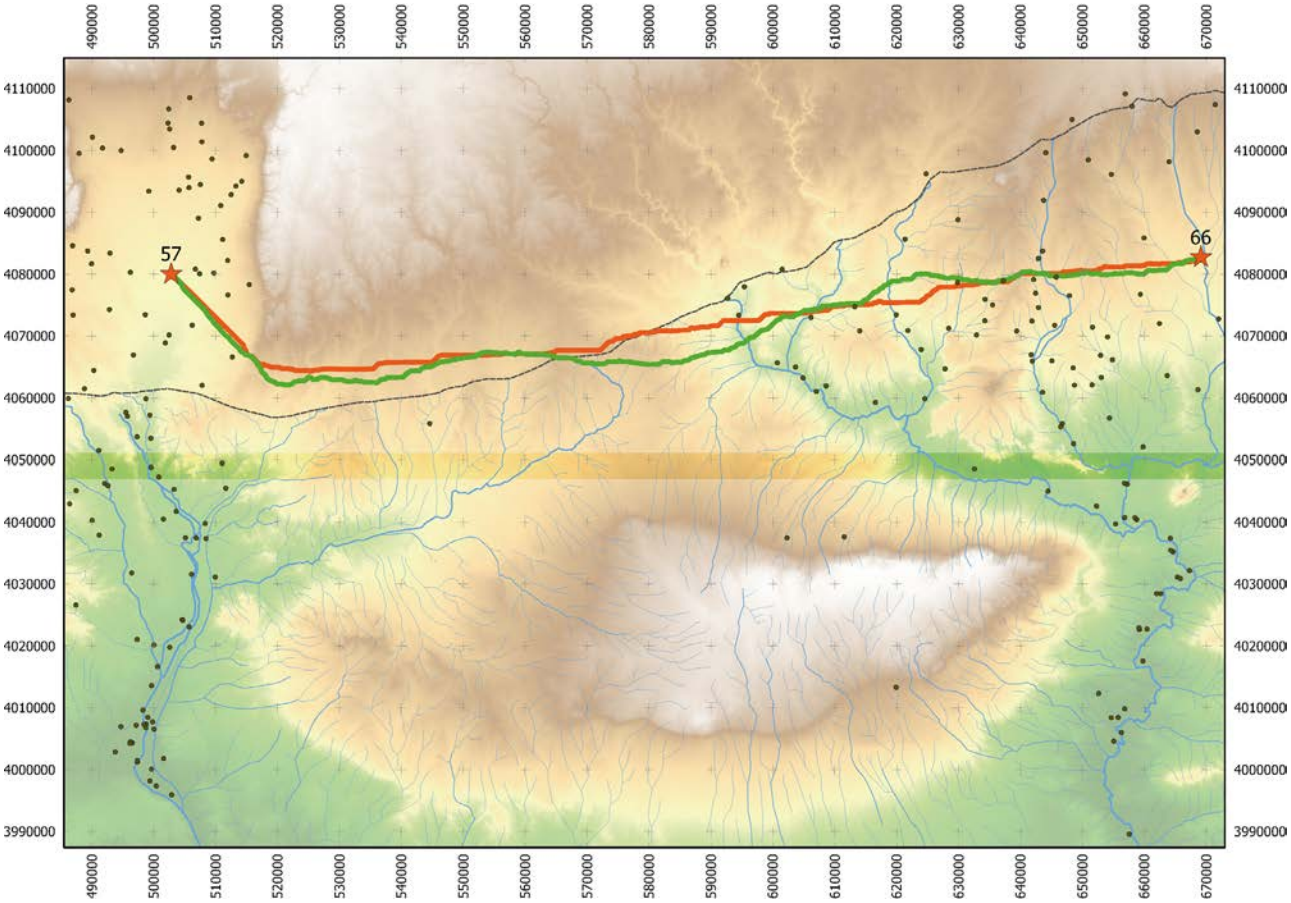

Fig. 18a: Calculating the distance between Ašnakkum (Hig. No. 66) and Harran (Hig. No. 57) using LCP (courtesy Kai-Christian Bruhn, i3 Mainz), dots are 2nd millennium sites; first attempt 2012.

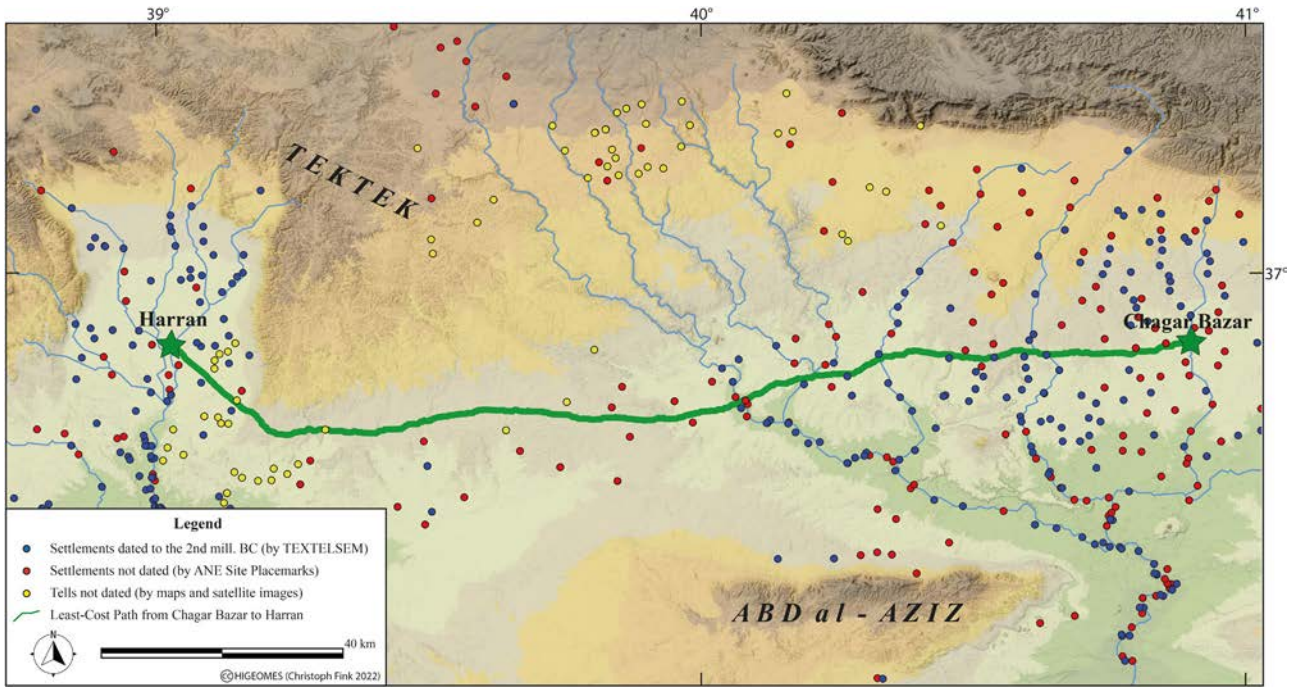

Fig. 18b: Search for settlements along the "Route 66" between Ašnakkum and Harran calculated by LCP.
Blue dots = HIGEOMES settlements of the 2nd millennium. Red dots = period-unspecific sites of O. Pedersén's ANE list.
Yellow dots: Tells determined by means of Russian maps and CORONA aerial photographs.

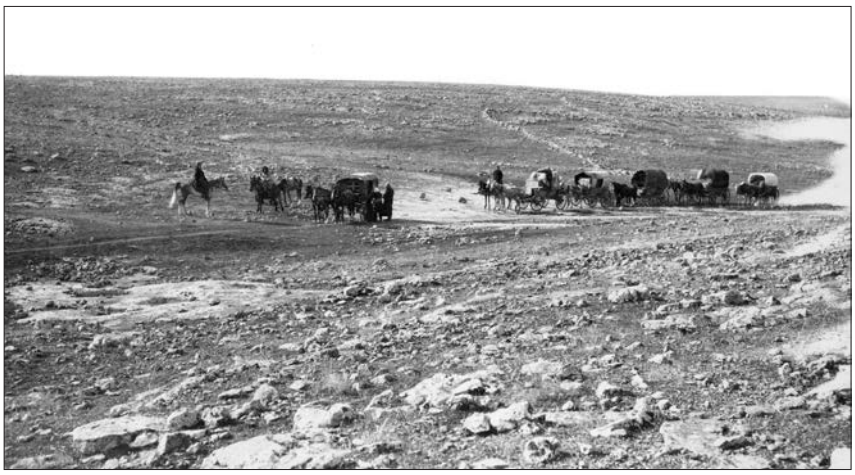

Fig. 19: Oppenheim's travel group in Tektek in 1913. Caption: "Tektekgebirge. Wassertümpel in Steinmulden."
(Copyright: Max Freiherr von Oppenheim Stiftung).

The area, which even today is steppe and contains hardly any villages, but is inhabited by nomads, was obviously a very sparsely populated region from the second millennium onwards, avoided by travellers because it is very dry and has few wells. Therefore, we suggest below a completely different routing, which seems much more likely to us.

Secondly, the station described as "*libbi šād Asam u Aba*" "in the heart of Mount Hasam and Aba" on the southern route would not be in the middle of a mountain range, as the unusual formulation emphasises, but in the flat, steppe-like plain south of the Tektek Mountains.

Thirdly, our hypothesis presented here is supported by the fact that Old Babylonian texts mention numerous places around Mammagiri (see below § 5.H.4) and Panahzu (see below § 5.H.3). It must therefore be an area with a high density of sites. This applies better to the northern area favoured by us than to the area south of the Tektek.

We think that another argument that was decisive for choosing a much more northerly route was the time of year. The group of travellers that had set out from Larsa must have arrived here in summer. Therefore, the route in the area of Tell Chuera, which has been particularly poor in water since the 2nd millennium, seems much less likely than the journey further north. There, in the eastern part, the route would run along the upper reaches of the Habur feeder rivers, which are water-bearing all year round. In the western part, the route would run through the Tektek Mountains, where there are always cisterns or springs that provide year-round water for travellers. Especially in the Neolithic period, the Tektek region was of great importance and had many settlements and gathering places, as evidenced by sites such as Karahan Tepe and numerous other similar PPN sites.[247] Numerous cisterns and ruins of castles, monasteries and larger settlements bear witness to the at least temporary importance of this landscape in the past[248]. The term «mountains» for the Tektek is slightly misleading, for this is rather a hilly plateau still used today as a summer resort and where the Tektek National Park (Tek Tek Dağları Millî Parkı) is located.

Max Freiherr von Oppenheim's photographs of his journey with horse-drawn carriages through the Tektek give a good impression of the landscape and the paths, which are naturally formed by depressions and hills and have probably changed little over the millennia. On his journey through the Tektek Mountains, which he recorded in a large annotated photo volume[249], Oppenheim described and photographed water pools in stone hollows that compensated for the small amount of springs (Fig. 19)[250]. With the additional abundance of wildlife that still exists there in the national park today, the Tektek plateau thus offered travellers important resources that were essential, especially in summer.

Today, the route through the Tektek is an important four-lane motor road (D400) connecting Urfa (Şanlıurfa) with Viranşehir on a 91 km stretch and testifying for an easy crossing of the region. So we suggest that the RTE travellers did not bypass the Tektek Mountains to the south, as calculated by the Least Cost Path models, but passed through them. The east-west route through the Tektek Mountains is a real alternative to the southern route from Ras-el 'Ain to Harran. The southern route is basically flatter, but also much drier. This is the reason why the northern route, travelling from Ašnakkum to the

247 Necmi 2022: 8–9.

248 Oppenheim 1900: 85. A good map was produced by Höhfeld 1995: 135-136.

See the interesting wikipedia entry in German, much more developed than the English counterpart, accessed September 2023: https://de.wikipedia.org/wiki/Tektek_Dağları#/media/Datei:Lagekizze_wichtiger_Sehenswürdigkeiten_der_Tektek_Dağları_(SO-Anatolien)_in_ihrem_naturräumlichen_Umfeld.jpg.

249 It can be viewed digitally in a photo volume today, see https://arachne.dainst.org/project/oppenheim/search?q=catalogPaths:28%20Tektek&fq=facet_bestandsname:%22Fotosammlung%20Max%20von%20Oppenheim%22

250 https://arachne.uni-koeln.de/arachne/images/portfolio.php?add=1524852. We thank the Oppenheim Stiftung for permission to use this photo.

northwest, remains in the area of the headwaters of the Habur tributaries, which come down from the mountain slopes and are all the more securely watered here further north and are also less deep, i.e. easier to cross than further south.

In addition, the southern route is strongly influenced by nomadism and dependent on ecological factors. If these factors failed, e.g. due to droughts or the collapse of higher-level state structures, the settlements in the area between the Tektek and Jebel Abd-el Aziz were abandoned and it fell into "anarchy", as was the case in the late third millennium. Also in the Middle Ages, after the Mongol invasion, the routes shifted from the south to the north.[251] A similar situation may have existed in the Middle Bronze Age. At least, according to the results of the Wadi Hamar Survey, settlement density rapidly declined at the end of the Early Bronze Age, and only slowly recovered from the Late Bronze Age onwards.

5.H.1 Ašnakkum = Chagar Bazar (Hig. No. 66, certainty 3)

Chagar Bazar is a medium-sized tell in the very heart of the Habur Triangle, already excavated in the 1930s by Max Mallowan, who here for the first time defined the specially shaped and painted Khabur pottery as a hallmark of the Middle Bronze Age of northern Mesopotamia and found the first tablets of Samsi-Addu's administration.[252] After a long break, a team led by Önhan Tunca resumed excavations in 1999, with another team under Augusta McMahon participating.[253] The excavated houses, palaces and tombs give a good picture of the Old Babylonian city Ašnakkum and make it one of the few cities in northern Mesopotamia the most important urban elements of which are partly known. Denis Lacambre and Adelina Millet Albà have provided strong arguments why Ašnakkum must be identified with Chagar Bazar.[254] W. W. Hallo had followed W. J. van Liere's suggestion and favoured the same identification, which was not a certainty at the time.[255] Ašnakkum was an important provincial city in Samsi-Addu's empire, but was then abandoned and knew political unrest several times. At the time of Zimri-Lim, Ašnakkum had a rather minor political role, but was the capital of the kingdom of Sumum. The archives of Tell Leilan, on the other hand, which are contemporary with the RTE itineraries, contain numerous references to Ašnakkum. J. Eidem assumes that Ašnakkum was at this time part of the kingdom of Urkiš, whose ruler may have been Yanṣib-Hadnu[256].

5.H.2 Alan, perhaps Tell Ailun (Hig. No. 17, certainty 1)

The station west of Ašnakkum was Alan on both the outward and return trips.[257] The sparse textual documentation suggests that Alan was not a politically important city. An identification with Tell Ailun (Hig. No. 17) has been suggested first by W. J. van Liere on the basis of the consonance.[258] Only the coincidence of the name's transmission makes one wonder—on the entire RTE journey, it seems to be one of the few places, along with Harran, that can be traced back to the ancient Babylonian name. Otherwise, the site seems to be the ideal candidate.

In 1956 Tell Ailun was brief visited by A. Moortgat, who even made a small sounding in 1956 where he encountered Middle Bronze Age levels with Khabur pottery.[259] Today it is largely destroyed because it has been dug away to produce mudbricks for the neighbouring village, but the remains still showed an impressive amount of Khabur pottery in 1992 and was therefore already proposed earlier by A. Otto as a good candidate for Alan.[260] Tell Ailun lies just over 30 km as the crow flies from Chagar Bazar in a north-westerly direction. The proposed identification is theoretically possible, especially if the travellers did indeed move into the hill country of Tur-Abdin, as we assume here. Hollow-ways prove routes between Chagar Bazar and Ailun.

F. di Filipo, on the other hand, who proposes a different route for the Old Babylonian travellers than the one we reconstruct here, argues against the identification with Tell Ailun and relies on the argumentation already put forward

251 Guyer 1911: 204.

252 Mallowan 1947.

253 Tunca *et al*. 2007; McMahon *et al*. 2009.

254 Bibliography in Ziegler & Langlois 2016: 42-43.

255 Hallo 1964: 74b-75a, based on W. J. van Liere's work. W. W. Hallo, however, was not convinced that Ašnakkum and Ašlakka had to be distinguished. Today we know this beyond doubt. Goetze 1953: 59 comments mainly on historical aspects and does not suggest any identification. For him Šubat-Enlil was identical with Chagar Bazar.

256 Eidem 2011: 33-34. See above fn. 240.

257 Ziegler & Langlois 2016: 15-16 s.v. Alan. The site is probably attested in the archives from Tell Leilan, see *ibidem*. Durand 2005 asked whether *a-la-an* should not be equated with Alilanum. We do not follow this suggestion here, as we locate Alilanum to the east of Šubat-Enlil. Goetze 1953: 62b knew of no parallel to this toponym. Forlanini 2004: 409 "presso Arada/Akdoğan".

258 Van Liere 1957: 92. Durand 2005 was against this identification, as a place in the immediate vicinity of Urkiš would be better attested in the Mari archives.

259 Moortgat 1957-1958: 182; Moortgat 1959: 15-31.

260 The site was visited by A. Otto and B. Einwag in 1992. For the proposed identification see A. Otto 2000, 8 with fn. 41.

by W. W. Hallo,[261] whose suggestion for identification he endorses:[262]

> "Alan would be located at about one hour west of Wadi Aweidj, some kilometres north of the Ardh al-Shaykh / Hemma Plateau, along the hollow way that joins Tell Hanou with Tell Warchek and Tell Habbu, up to Tell Shur."

and in an explanatory footnote Filipo adds:[263]

> "According to the LCP model, the stage of Alan is exactly between Tell Warchek and Tell Habbu. (...) Among these 4 sites, only Tell Hanou has been surveyed (Lyonnet 2000, 29 – cf. no. 33, T. Hanoua). It shows traces of "occupation majeure" during the first half of the second millennium."

The identification with Tell Hanoua proposed by W. W. Hallo and F. di Filippo (Hig. No. 232) is based primarily on the fact that they assumed a route leading directly to the west. As explained above, this does not seem likely to us. The arguments put forward against the identification of Alan with Tell Ailun are not convincing. We still think that Tell Ailun is the ideal candidate if the travellers passed through the mountainous country of Tur-Abdin, as we suspect.

5.H.3 Panahzu

Panahzu is perhaps one of the most unusual toponym clusters of Upper Mesopotamia. Indeed, as we argued in MTT I/1, this toponym had variants that perhaps all pointed to a more or less extended reality on the terrain:[264] Panahzu, Panašum, Ša-Panašim, Ša-Panazim and Šatu-Panazim all seem to be interrelated designations of a geographical reality that eludes us.[265] Whether the toponym can be related to the Ebla-period Šanabzugum has been considered.[266] In this case, the site would have a settlement history going back to the 3rd millennium. In Old Babylonian times, however, it had no political pre-eminence, whereas the Ebla-period Šanabzugum was a political centre in Upper Mesopotamia headed by a *badalum*.

The location of Panahzu and its variants are mentioned in several letters of Samsi-Addu's time, and are often referred to with Heššum, but occasionally also with Mammagira (§ 5.H.4), Bakitanum (§ 5.H.8) or Palda (§ 5.H.13). All these toponyms—especially Heššum and the variants of Panahzum—were located on an east-west route whose respective endpoints were the Balih area and Šubat-Enlil, which suggests that they were all in the same major area. This region had briefly come to the attention of Samsi-Addu government officials because Larim-Numaha, the ruler of the as yet unlocated kingdom of Aparha had dared to revolt against Samsi-Addu's suzerainty.[267] Yasmah-Addu from Mari had to come to the rescue with troops, Išme-Dagan and his soldiers joined in, Samsi-Addu planned to come in person.

These places were also crossed by our Old Babylonian travellers, some on the way there and others on the way back. This speaks for a relatively densely populated area which was also important in terms of traffic. As we assume, a valley or parallel valleys of the Tektek were crossed. If our hypothesis is correct, Panahzu was located at the eastern exit of this mountainous crossing area[268] and was probably a city of the kingdom of Yapṭurum, whose capital was Talhayum.[269]

We have calculated the sector in which Panahzu must be searched ca. 36 km west of Alan (Fig. 17). This region corresponds to the area between the Wadi Zerkan and Jirjib. Within this zone, numerous sites are documented, but they are not dated more precisely. Thus, one possibility for the identification of Panahzu would be the cluster of hills at Haramiye, which lies between Viransehir and Tell Ailun[270] (Fig. 20). Overall, however, the density of tells in this area is high. Further to the NW, one enters an area that today lies not far north of the Syrian border in Turkey – an area that has been surveyed,[271] but the Middle Bronze Age sites have not yet been published.

261 Hallo 1964: 75 argues against the identification because it is based on relative homophony. He suggests an identification of Alan with Tell Hanwa (= Tall Hanoua, Hig. No. 232), on the middle course of the Wadi al-A'waǧ.

262 Di Filippo 2016: 471.

263 Di Filippo 2016: 471 Fn. 91.

264 Ziegler & Langlois 2016: 327 gathered the attestations, writings and proposals. Hallo 1964: 75 localised Panahzu in Tell Abu Rasen (Hig. No. 940) on Wadi Zerkan. See Di Filippo 2016: 471-472.

265 One explanation is that place names that differ only by "Ša" could lie on both sides of a watercourse. Hiddan and Ša Hiddan are sometimes explained in this way, as are Baṣṣum and Ša-Baṣṣim in Babylonia.

266 Bonechi 1993: 290-291.

267 For the revolt of Larim-Numaha see Charpin & Ziegler 2003: 105-106, 108-109.

268 Di Filippo 2016: 472, who assumes a more southerly course than we do, proposes several identification candidates located at or near the Wadi Jirjib in today Syria.

269 For Talhayum and Yapṭurum see Ziegler & Langlois 2016: 357-359, 405-407. In the days of the archives of Tell Leilan, the ruler of Talhayum was Mehilum.

270 Ay 2006: No. 144-146.

271 Survey of Eyyüp Ay 2006.

5.H.4 Mammagira

Mammagira[272] was situated at the eastern extremity of Mount Hasam (§ 5.H.12), which is identified with the Tektek, and at the time of Zimri-Lim of Mari on the border of the kingdoms of Yapṭurum and Šuda.[273] Samsi-Addu wrote to his son Yasmah-Addu, when he was—during a revolt in the Zalmaqum—in the region of Šubat-Šamaš:[274]

> "Now, Mount Hasam is (only) a couple of double hours from Šubat-Šamaš. Two of your fast couriers should take your tablets and move toward me at night through (Mount) Hasam. Who will notice them? From Hasam, by heading to Šuda or Mammagira, they should make their way to me."

Like Panahzum, Mammagira is repeatedly mentioned together with other places in the region. For example, in another letter from Samsi-Addu to his son Yasmah-Addu:[275]

> "As for you, stay put in Mammagira (...). It is not desirable for you to stay at Panašum or Talhaya. Mammagira is indeed well suited for you to stay."

Another unpublished letter of Samsi-Addu, belonging to the same historical context, mentions Mammagira, Bakitanum (§ 5.H.8), Ša-Panazu (perhaps identical with Panahzu § 5.H.3) and Kawila,[276] and all are to be sought in the same area:[277]

> "Your stay in Mammagira or Bakitanum is not desirable. Since there is no water in Ša-Panazi, your stay in Kawila is convenient."

According to the written documentation, Mammagira was a well-fortified border town at the eastern exit of the Hasam Mountains. The calculated route records several sites after about 35 km, but the same problem arises as with Panahzu. In the course of the survey of Eyyüp Ay in the upper Khabur triangle in Turkey, more than 140 sites were recorded, dating from the Neolithic period to the Middle Ages.[278] For example, survey site no. 36 (Kele or Germen, 39.885435 / 37.183878) is located about 10 km southeast of Viransehir and measures about 350 m in diameter (Fig. 20). Site No. 35 (Atchana, Turkish name Elgün; 39.828465 / 37.169422) is a roughly circular mound about 400 m in diameter and at least attested for the EBA.[279] Both are situated on one of the numerous north-south running small watercourses (Altınbaşak Deresi). Either of these two medium-sized tells could be candidates for Mammagira. They could also be candidates for Buš'anum or Musilanu, for example, which served as stops on the way back (Fig. 17).

5.H.5 Masmenum

Two Upper Mesopotamian sites with similar names are attested.[280] Mašmiyanum was in the immediate vicinity of Kahat. Texts mention it in connection with Kabittum and Šalluriyu;[281] all evidence published so far from Mari calls this Mašmiyanum. The second toponym, Masmenum, attested in the Old Babylonian Itinerary as station between Buš'anum (§ 5.H.6) and Alan (§ 5.H.2), was closer to the Tur-Abdin and, according to our hypothesis, must be sought perhaps 20 km west of Tell Ailun, in the southwestern vicinity of Kiziltepe. An unpublished fragment from the time of Samsi-Addu, which can be dated to the historical context of the Larim-Numaha revolt, mentions *ma-as-mi-a-nim*^{ki} together with Šubat-Šamaš (= probably Bandar Khan, Hig. No. 440, at the Qaramuh river 20km

272 Ziegler & Langlois 2016: 212-213. The spelling in B: 28 (*ma-ma-a-gi-ri*) with a long A is unusual, most attestations render a double M.

273 Hallo 1964: 75b: "Mammagiri itself no doubt brings us to the sources of the Chabur in the Resaina (Ras el-'Ain) area. It should probably be identified with Fekheriye rather than with Guzana-Tell Halaf"—close to which he localises Buzanum (cf. § H.6).

Di Filippo 2016: 472 assembles the textual data and agrees with Joannès 1996: 342, that Mammagira was a "key node of the communication axis toward the Upper Balikh basin, as well as in close connection with the southeastern foothills of the Tektek Daghları (...) along the course of the Wadi Hamar in the area of Tell Hanzir." Close to the calculated LCP path, di Filippo 2016: 473 finds Tell Kharab Aarnane.

274 ARM I 97: 14-23, translation Sasson 2015: 163 (§ 2.2.e.iv.3). For Šubat-Šamaš = probably Bandar Khan (Hig. No. 440), see below fn. 282.

275 ARM I 53+: 8-13, translation Sasson 2015: 255 (§ 5.iv.d.i.2).

276 A town close to Nahur, cf. Ziegler & Langlois 2016: 186-187. See also above fn. 241 for a possible identification with Old Akkadian Hawilium.

277 Unpublished letter by Samsi-Addu to Yasmah-Addu, M.15047.

278 Ay 2006: 79. So far, there is no detailed breakdown of the sites according to epochs, so that only rough identification suggestions can be made here.

279 Kaplan 2020 : 438.

280 Ziegler & Langlois 2016: 227 s.v. Mašmiyanum have not separated these two toponyms. The entries must probably be separated into Mašmiyanum (1) and (2).

281 Goetze 1953: 62b already was aware about this geographical proximity.

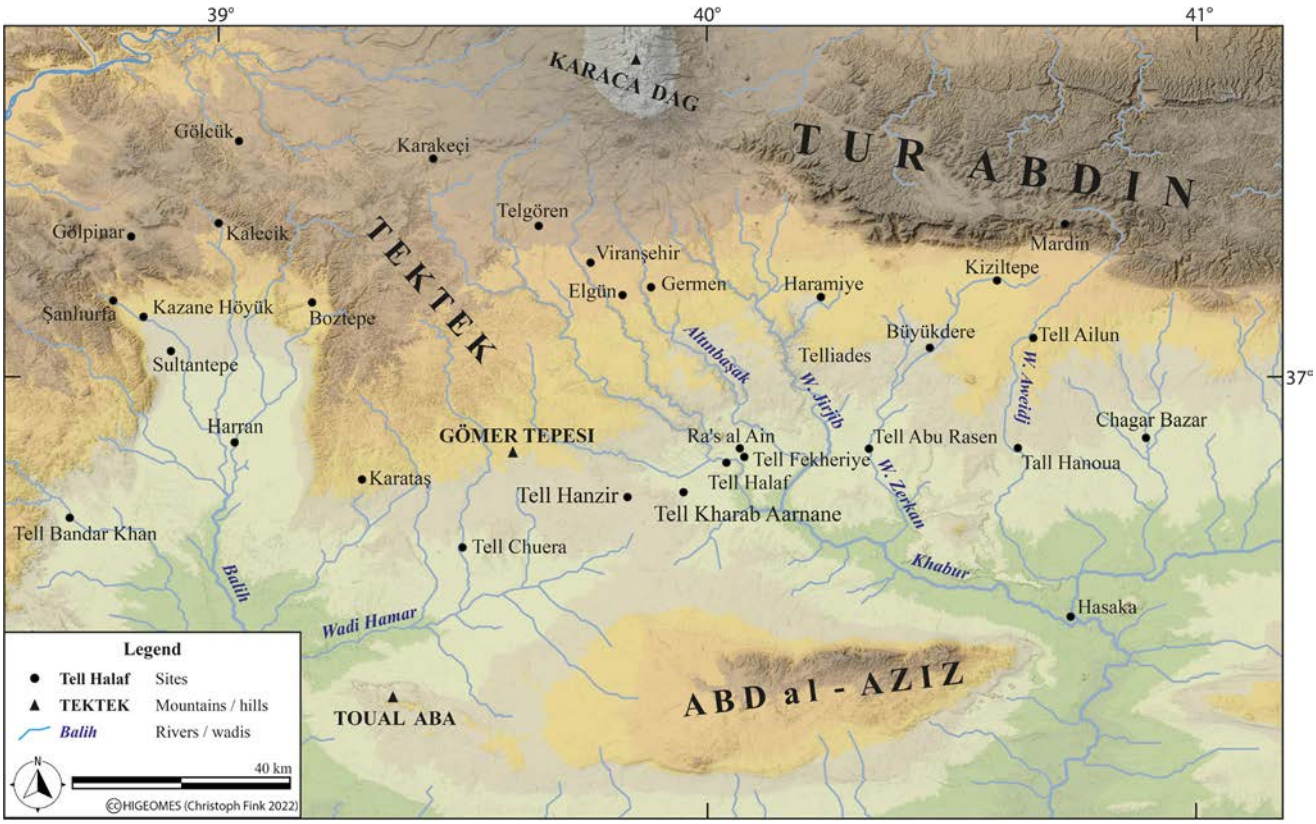

Fig. 20: Several sites between Chagar Bazar and Bandar Khan mentioned in this contribution.

west of the Balih[282]) and Haduraha. This document certainly refers to the toponym attested in the RTE.[283]

5.H.6 Buš'anum

Buš'anum, for this is how the toponym written in A: iii 18 *bu-za-nu-um* must probably be rendered in a standardising manner, is relatively well attested in the Mari archives[284] and belonged to the kingdom of Yapṭurum, but lay close to the border with the kingdom of Ašlakka. In a letter from the governor of Nahur one reads:[285]

> "Now Yapṭurum has revolted from the Sarum river until Buš'an. They have shown their hostility!"

Michaël Guichard quotes an unpublished letter of the Mari archives, which testifies to the great closeness of the places Buš'anum and Musilanu (§ 5.H.7):[286]

> "Itûr-Asdû, the governor of Nahur, in one of the letters in his correspondence which I am editing (A.3063: 26) tells us that there are barely 10 *šušši* between Buš'ân and Musilân (*mu-sí-la-an*^{ki}), i.e. a handful of kilometres (some 4 km?)."

A. Goetze had suggested that the spelling *B/Pu-z/ṣ/sa-nu-um* could be an earlier version of the toponym Guzana, i.e. Tell Ḥalaf near Ras al-ʿAin,[287] but W. W. Hallo was already against the identification with Guzana,[288] as was M. Forlanini who localised Buš'anum near Büyükdere.[289]

282 For the important site Bandar Khan, one of the major sites along the valley of the Qaramuh, the main tributary of the Balih, with levels of the 3rd and 2nd millennium see Einwag 1993: 25, 37-38, Einwag 2007: 196-197.

283 Forlanini 2004: 409 n. 22 localised Masmenum in Telades.

284 The spellings differ greatly from each other, see Ziegler & Langlois 2016: 70-71.

285 ARM 26/1 217: 34-35. The river Sarum can perhaps be identified with Wadi Zerkan (see bibliography in Ziegler & Langlois 2016: 305-306).

286 Guichard 2006: 31: "Itûr-Asdû, le gouverneur de Nahur, dans une des lettres de sa correspondance dont je prépare l'édition (A.3063: 26) nous apprend qu'il y a entre Buš'ân et Musilân (*mu-sí-la-an*^{ki}) à peine 10 *šušši*, soit une poignée de kilomètres (quelque 4 km?)."

287 Goetze 1953: 62.

288 Hallo 1964: 82b. For more details see Forlanini 2004: 408-409 and fn. 21.

289 Forlanini 2004: 409 fn. 22. See *ibidem* p. 408: 20 for a discussion of the attestations s.v. Buš'ân/Bušânum. The site, under the name "Gir Bunas" (Ay 2006: No. 61), was discovered by the Girnavaz archaeological team in the early 1990ies. It is also called "Demirkapi" and

5.H.7 Musilanu

Musilanu,[290] like Buš'anum (§ 5.H.6), traditionally belonged to the territory of the kingdom of Yapṭurum[291] and was very close to Buš'anum (see above). A. Goetze had originally read the toponym KUL-*za-la-nu*, the collation to *mu-sà-la-nu* is secured.[292] M. Forlanini locates this stage in the north-east of Viranşehir.[293]

5.H.8 Bakitanum

Bakitanum,[294] which is written PA-*ak-ta-nu* in text A: iii 16, is particularly frequently attested in the context of the Larim-Numaha revolt at the time of Samsi-Addu[295] and is mentioned in various texts, some of them still unpublished, together with Mammagira (§ 5.H.4), Ša-Panazim (see Panahzu § 5.H.3) and Šuda. A decade later, at the time of Zimri-Lim, and probably another decade later at the time of the Itineraries, Bakitanum belonged to the kingdom of Šuda, which probably extended over the Tektek Mountains. M. Forlanini identifies Bakitanum with Telgören, which lies ca. 13km in the NW of Viranşehir (Fig. 20).[296]

5.H.9 Kubšum

Kubšum[297] is mentioned in two texts found at Tell Leilan and was evidently located at a bottleneck on an important passage from Upper Mesopotamia to Aleppo. Buria, the ruler of Andarig, reported to Till-Abnu of Šehna that his messengers who were on their way to Aleppo had been forced to turn back at Kubšum, while two other messengers who had chosen a much more southerly route via Tuttul had got through.[298] Kubšum was thus a bolt on one of the routes to the west as seen from Andarig and Šehna. An administrative text from Tell Leilan, probably written in a different historical context, mentions a leather container with perfumed oil brought from Kubšum.[299]

Kubšum is also mentioned in some as yet unpublished Mari texts. J.-M. Durand summarises the evidence as follows:[300]

> "The letter from Hâlî-hadun (A.521+) refers to the town of Kubša, from where the Bedouin army aligned with the Mariotes was due to arrive in Nehriya after making an expedition against it. In another of his letters (A.3030), Kubša seems in fact to be part of the kingdom of Asdi-Takîm, and therefore of the king of Harran."

It can be debated if Kubšum really belonged to Nihriya. It seems more likely to us, that it belonged to the kingdom of Šuda. The place was perhaps located in a mountain valley, as messengers could be prevented from travelling further there. M. Forlanini located Kubšum in the surroundings of Karakeçi.[301]

5.H.10 Tunda

Tunda[302] belonged to the kingdom of Šuda at the time of Zimri-Lim of Mari. The ruler Sibkuna-Addu stressed the cultic importance of Tunda in a letter.[303] More recent Hittite sources know of the sanctuary of the Ištar of Tunda.[304]

dates presumably to the EBA. However, Büyükdere lies only about 20 km west of Tell Ailun and it is therefore questionable whether Forlanini actually means this place for the identification of Buš'anum.

290 Ziegler & Langlois 2016: 237 s.v. (an (2). Two homonyms are known, see ibidem and already Charpin 2003: 26. The spellings differ greatly.

291 ARM 27 64: 8-9: *mu-sí-la-nim*{o}^{ki}, *ša ha-la-aṣ ta-al-ha-y*[*i*]^{ki}. Talhayum was the capital of the kingdom of Yapṭurum.

292 Guichard 2006.

293 Forlanini 2004: 409 n. 22.

294 Ziegler & Langlois 2016:53-54. Goetze 1953b commented "not otherwise known".

295 Charpin & Ziegler 2003: 103-106.

296 Forlanini 2004: 409 n. 22. So far, traces of a neolithic settlement have been found in Telgören, but none of the Bronze Age (Kaplan 2020: 437).

297 Ziegler & Langlois 2016: 191-192. Goetze 1953: 62 cautiously suggested it might be related to the Tigubis of the Tabula Peutingeriana, for which he enlists other classical sources. For geolocalised access to the Tabula Peutingeriana, the website *Omnes Viae: Itinerarium Romanum* (to Tigubis: https://omnesviae.org/fr/#!iter_TP-Place2653_) can be recommended.

298 PIHANS 117 41.

299 Ismail 1991: 95-96, n°89 : 3. The text is dated into eponymy Amer-Ištar, i.e. the reign of Mutiya.

300 Durand 2005: 7: "La correspondance de Hâlî-hadun (A.521+) fait référence à la ville de Kubša d'où doit arriver à Nehriya l'armée bédouine inféodée aux Mariotes après avoir fait une expédition contre elle. Dans une autre de ses lettres (A.3030), Kubša semble en fait faire partie du royaume d'Asdi-Takîm, donc du roi de Harrân."
Nihriya can probably be identified with Kazane Höyük (Hig. No. 78), as suggested by J. Miller, see bibliography in Ziegler & Langlois 2016: 252-253.

301 Forlanini 2004: 409 n. 22 "presso Karakeci".

302 Durand 2005 comments on the site. Detailed is Trémouille 2014-2016. On the Old Babylonian evidence see Ziegler & Langlois 2016: 371.

303 ARM 28 31 is a letter from the ruler of Šuna Sibkuna-Addu, who reports to Hali-Hadun that he has restored statues of the gods Tunda and Šitarbi and now wants to have them enter the various palaces of his kingdom in a procession, as well as parade through the wasteland (*huribtum*). Tunda and Šitarbi apparently had greater cultic significance for the king of Šuna.

304 Trémouille 2014-2016.

This has already been commented on in detail by A. Goetze.[305]

The Hittite Tunda is localised in the greater area of "Kizzuwatna". M. Forlanini suggests a localisation in Gölçuk.[306] The city thus had a longer settlement history and probably housed a larger sanctuary of Ištar with a long cult tradition.

5.H.11 Palda

Palda, which has been correctly interpreted by J.-M. Durand in this reading,[307] is known from several still unpublished texts from Mari and probably belonged to the kingdom of Šuda at the time of Zimri-Lim. Also in an unpublished letter of Samsi-Addu, Palda is mentioned as the sojourn of Yasmah-Addu, who had just taken the Zalmaqum fortress of Alatru. Samsi-Addu asks him to go to Heššum now. One of his troops, on the other hand, should go via Šuda and Ša-Panazim.[308] This letter is also to be dated in the context of Larim-Numaha's revolt (see above). Ša-Panazim could be identified with our § 5.H.3 Panahzum.

Palda was one stage from Huburmeš (see below § 5.H.14), which M. Forlanini proposed to localise at Gölpinar. If this was true, the small site of Kalecik lies ca. 15 km to the East of Gölpinar where sherds of the MBA were found (Çelik 2008 : 19).

May this proposal be correct or not, Palda was probably already on the "edge" of the Zalmaqum, i.e. the Balih tributary area, and can perhaps be sought north or northeast of Urfa on the edge of the mountainous area.

5.H.12 A stage in the mountainous area between Hasam and Aba

On the outward journey, RTE travellers were forced to spend the night in open country "between the Hasam and Aba ranges" after having left Mammagira (§ 5.H.4) and before arriving at Samum (§ 5.H.13). W. W. Hallo commented thus:[309]

> "At this point the Itinerary evidently crossed the modern Turkish frontier and once more cut straight across open and largely uninhabited country, leaving to the left the chain of settlements that stretch southwest toward Tell Chuera on the Syrian side of the border. In fact the next station was clearly not a town at all, nor even a caravanserai: *lìb-bi šad A-sa-am ù A-ba-a* means simply '(through) the middle of (or: between) the mountain(s?) of Asam and Aba.'"

Obviously the travellers had set up camp where either no settlement existed or where it was deliberately not visited.[310] Could it be between the two mountain ranges that lie to the east of Harran? Mount Hasam / Asam is identified with the mountain range Tektek:[311] the mountain range east of Harran, probably identical with the southern foothills of Tektek. Aba is the name of another mountain range or mountain. It is mentioned in ARM 13 143 in connection with Talhayum,[312] the capital of the kingdom of Yapturum, which is sought at the foot of Tur Abdin perhaps in the area of present Viranşehir.[313] We therefore suggest that the quarters of that night were pitched in the mountains about halfway between today Viranşehir and the Harran plain.

5.H.13 Samu'e, perhaps Boztepe / Tepedibi (Hig. No. 294, certainty 1)

Samu'e, the last station before Harran (§ 5.I.1), can probably be compared with the well-known toponym Samum,[314] which is known above all for a category of high-quality wine, the wine of Samum/Simum.[315] It should therefore not be located in a steppe environment (and thus is another argument for our northernmore route), but ideally in the area of loose soils with a high proportion of pebbles or other rocks, possibly slopes with soils well suited for viticulture near a fertile plain. With Grégory Chambon

305 Goetze 1953: 62.

306 Forlanini 2004: 408-409 and n. 22.

307 Durand 2005. A. Goetze read PA.AGA.UŠ, see below the commentary on Text A: iii 13. For Palda see also Ziegler & Langlois 2016: 262-263.

308 Unpublished A.4426.

309 Hallo 1964: 75b.

310 Di Filippo 2016: 473 locates the site of the camp on the Gömer tepesi, a 300 m high hill on the southern foothills of the Tektek.

311 Ziegler & Langlois 2016: 128–129; Bagg 2017: 217.

312 Ziegler & Langlois 2016: 1.

313 See Guichard 2011: 32. W. W. Hallo's suggestion to identify Aba with Toual Aba, the western foothills of Jebel Abd-al-Aziz, is no longer relevant today.

314 Ziegler & Langlois 2016: 300-301. Hallo 1964: 76b. Di Filippo 2016 : 473 has no clues as to the location of Samue but, thanks to LCP calculation, supposes it to be near the modern village of Karataş on the south-western slope of the Tektek, while Forlanini 2004: 408 n. 14 looks for it in the north-east of Harran, on the slope of Mount Asam.

315 Chambon 2009: 10, 14-16.

we assume that not every "wine of Samum/Simum" was really a product of the winegrowers of this town, but it is plausible that quality wine was originally planted in the surrounding area of this town and became name-giving for similar products. It is interesting to note that on the occasion of the marriage of Sibkuna-Addu of Šuda with Princess Hazala of Mari, large quantities of wine were delivered to Mari. The text FM 11 21 does not specify that it is "wine from Samum", but it shows that the kingdom of Šuda, to which Samum belonged in our estimation, was famous for its wine production.[316]

Our reconstitution of the route allows the Old Babylonian travellers to enter the plain at a site named Boztepe / Tepedibi (Hig. No. 294; 39.191557 / 37.151210). It lies on the edge of the fertile Harran plain, where a small range of hills separates the valley from the rest of the Balih tributary area (Fig. 20). The tell measures about 4 ha and was registered on a survey.[317] A dating for the early MBA is given, like most ancient sites in the Harran plain, which were explored by Yardimci.[318]

The tell is situated on the NE edge of the Harran plain, which was well suited for vine cultivation, and from where one reached the mountains. A frequently travelled path lead from here through the Tektek Mountains. Today, an important motor road, the (D400), passes through here, connecting Urfa with Viranşehir and following approximately the route of older connecting paths. For Roman times the same path is proposed for the connection between late Roman Edessa (Şanlıurfa) and Antiochia Arabis or Constantia (Viranşehir) with one possible site in the Tektek Mountains called Barbare (Mohammed Khan).[319] Various European travellers also took this route in the 19th and 20th centuries, including William Ainsworth who traveled from Urfa to Mardin in 1840 and botanist Carl Hausknecht in March 1867, who described the flora and fauna in his diaries. Max von Oppenheim used his time in the Tektek Mountains in 1899 to record the various Christian and Muslim monasteries and castles.[320] The "Handbook of Mesopotamia" describes this path as a road passable for two-wheeled carts in the period up to World War 1.[321]

A very interesting letter from the time of Samsi-Addu, ARM 1 103, brings together several realities: papahi mountain dwellers, Samum and Hurmiš (probably the Huburmeš of RTE § 5.H.14), as well as Hirmenzanum, an enemy kingdom that can be located in the mountains bordering the fertile North Mesopotamian plains, i.e. the Tektek or Tur-Abdin area (see Fig. 20). We will look at this text in the next § 5.H.14. It testifies to the close proximity of these toponyms on the edge of the Harran plain.

5.H.14 Huburmeš, perhaps Gölpinar (37.28569°N 38.8265°E, certainty 1)

Huburmeš is an unusual toponym for which there is no parallel,[322] but which can probably be identified with the equally unusual toponym Hurmiš[323] and perhaps Hurwaš,[324] which are attested in the Mari archives. It is not yet clear whether they represent one or two different geographical realities. The toponym Hurmiš occurs in a letter of Samsi-Addu and was written in the context of a revolt in Zalmaqum when Yasmah-Addu and Samsi-Addu were close to the scene of events. Samsi-Addu credited Yasmah-Addu with lenient behaviour in the face of the ambivalent attitude of a ruler named Zigildanum:[325]

> "Do not impute to treachery the fact that Zigildanum did not go up with you, to stand before [me]. This is the message that Zigildanum [had] sent to me:
> "Since Hurmiš has rebelled, [I did not go to Hurmiš]. I thought, 'It is to be feared that, (if) I go to Hurmiš, it will be the people of Harišanum[326] who rebel!' This is [why] [I] did not [go] to Hurmiš.
> I gave a written order and the people of Hurmiš have just expelled [the com]mandos of the mountaineers (LÚ *pá-pá-hi-i*). [The town has just returned to my party. There are no more problems [in] Hurmiš. [Nevertheless, I will not leave Harišanum. I am standing guard over [...]"
> This is the message he sent me. According to his missive, leaving Nihriya I will go to Admum (§ 5.H.15). At dawn, I

316 Chambon 2009: 16.

317 Yardimci 1992, Yardimci 2004.

318 Çelik 2008: 40.

319 Talbert 2000 : 1269-1282, map 88 and 89.

320 Ainsworth 1840: 520; Kiepert 1882; Oppenheim 1943.

321 Naval Staff, Intelligence Department 1917: Route 118.

322 Durand 2005 has tried to make sense of the name and suspects that it is the place where the Habur disappears into the karst before resurfacing at Ra's al Ain. The toponym of the Old Babylonian itineraries, however, must be sought in the northern Balih area.

323 Ziegler & Langlois 2016: 147 s.v. Huburmeš, which is tentatively equated with Hurmiš.

324 Ziegler & Langlois 2016: 155. Hurwaš is attested in several unpublished texts that shall be published by Brigitte Lion. Zimri-Lim deported the population of this place, as well as of Hiršiphum/Širšiphi, Eqlum-bana, Tillabna, Šidqan and Till-badi, none of which can be located, towards the end of his reign. It is unknown whether Hurmiš and Hurwaš can be equated.

325 ARM 1 103 has been collated by J.-M. Durand, see Durand 1998: 43-46 and www.archibab.fr/T4521. The interpretation of l. 9-10 is slightly different: (9) [*ki-m*]*a* ṭe₄-em hu-ur-mi-iš*^{ki} *iš-nu-ú* [*a-n*]*a* h*[*u*-ur-mi-iš*^{ki}] (10) *ú-ul al-l*]*i*-ik** (...).

326 Two homonyms are known, see Ziegler & Langlois 2016: 124-125.

will send you all the information I have, (to know) whether it is you who will transport yourself to me or I who will do it in your direction.
Zigildanum sent me the following message about the city of S[amu (§ 5.H.13)]:
"Samu (§ 5.H.13) has a non-aggression pact with me." This is what he wrote to me.
So don't go near the people of Samum! Destroy the various villages; cut up his land; destroy it; do not leave a grain of his wheat; destroy even the grass and everything so that it becomes a land subject to him. But do not come near Samum (§ 5.H.13)!"

M. Forlanini suggests that Hurmiš may have been sought in Gölpinar (37.28569°N 38.8265°E) north of Şanlıurfa, a place that lay on the route he suspected and which is known for the discovery of Hittite reliefs.[327] Another possibility for the identification of Huburmeš could be the small site of Kalecik, where lies ca. 15 km to the East of Gölpinar and where sherds of the MBA were found – if this was not the location of Palda (§ 5.H.11) the next stage of the return trip.[328]

5.H.15 Admum, probably Urfa / Şanlıurfa (certainty 2)

M. Forlanini has convincingly suggested identifying Admum with Urfa (since 1983 named Şanlıurfa), the ancient Edessa, since medieval Arabic sources identified the latter as 'DM'.[329] Although this identification has not yet been confirmed archaeologically, it seems plausible to us, especially since settlement layers under the urban area of Urfa date back to the Pre Pottery Neolithic period.[330] Admum[331] belonged to the kingdom of Nihriya (Kazane Höyük, Hig. No. 78),[332] but obviously the travellers of the RTE did not want to stop in the politically more important capital. The Tell Leilan archives, which document Upper Mesopotamia at the time of the writing of the RTE, mention messengers from Nihriya several times. Tahe, the "Man of Nihriya",[333] may have been the ruler of the city.

5.H.16 Haziri, probably Sultantepe (Hig. No. 171, certainty 2)

Haziri[334] is not attested in the Old Babylonian documentation, apart from text A: iii 10, but since W. W. Hallo[335] it has been equated with the Middle Assyrian Huziranu[336] and the Neo-Assyrian Huzirina,[337] which is located in Sultantepe. This identification seems plausible to us, especially since excavations and surveys from the 1950s onwards prove the occupation of the impressive mound in the Middle and Late Bronze Age.[338] Sultantepe is only 15 km from Urfa (Admum § 5.H.15), and also only 23 km from Harran (§ 5.J.1). Nevertheless, the Old Babylonian travellers stayed two nights[339] at this stopover between Harran and Admum (§ 5.H.15), which is discussed in the above §.

5.H.17 Sarda

The toponym is not clearly identified and no parallel illuminates the reading. The toponym has been read *sa-hulda* by A. Goetze. J.-M. Durand[340] asked whether *sa-ar*$^{!}$*-da* should be read, but knew no parallel for this either. The place must be sought near Harran. Perhaps it is a word for a suburb or the perimeter: *sahirtum* "surroundings", for example, would have been a suitable description for a place in the vicinity of Harran.

W. W. Hallo quoted former suggestions to identify "Sahulda" with a supposed toponym of Old Assyrian texts[341]

327 Forlanini 2004: 408. Hittite stele fragments dating to the 10th century BC were found in a field near Gölpinar (Kulakoğlu 1999: 168). Older traces of settlements have not yet come to light.

328 Çelik 2008 : 19.

329 Forlanini 2004: 408.

330 Çelik 2000.

331 Ziegler & Langlois 2016: 6-7 s.v. Admum (1). A homonym existed in the Sindjar area.

332 Nihriya has been convincingly equated with Kazane Höyük by Jared Miller. See e.g. Miller 2012 and more bibliography and evidence in Ziegler & Langlois 2016: 252-253.

333 Vincente 1991 nr. 18 : lo.e. 1: *ta-hi* LÚ *ne-*^{r}*eh-ri*^{1}*-a*^{ki}. The same text also mentions offerings for a messenger of the "LÚ ^{r}x^{1}*-zi-ra-nim-*^{ki}". Another recipient of the offering is a man from *an-za-wa-wa*^{ki}, which could not be identified. Whether …ziranum is Haziranum = Haziri seems unlikely, since Haziri was probably not a capital. The other Tell Leilan evidence on Nihriya is collected in Ziegler & Langlois 2016: 252-253.

334 Ziegler & Langlois 2016:134.

335 Hallo 1964: 82.

336 Cancik-Kirschbaum & Hess 2016: 66.

337 Bagg 2017: 238-239. See also Hallo 1964: 82.

338 Fink 2016: 29; Çelik 2008: 28; Lloyd & Gökçe 1953.

339 In this regard, Hallo 1964: 82b already notes that the writer of the itineraries apparently did not have to provide any justifications for such longer stays.

340 Durand 2005.

341 Nashef 1991: 42-43 clearly argued against an alleged Sahuldum in an Old Assyrian text.

and Tell Sahal in the Tektek Mountains[342]—both must be excluded today. More probably it must be sought in one of the many 2nd millennium tells in the Harran plain which, however cannot be dated more precisely today, as has been explained above.

5.I The RTE Route from Harran to Tuttul

Outbound trip from north to south	Comment on toponym	Return trip from south to north
Harran ↓	§ 5.I.1	Harran
Apqum-ša-Baliha ↓	§ 5.I.2	Apqum-ša-Baliha ↑
	§ 5.I.3	Sahlala ↑
Zalpah ↓	§ 5.I.4	Zalpah ↑
Ṣerda ↓	§ 5.I.5	
	§ 5.I.6	Ahuna ↑
Tuttul	§ 5.J.1	Tuttul ↑
Outbound trip (to be read from top to bottom)	§ 5.I	Return trip (to be read from bottom to top)

Table for § 5.I : Overview of the stages of the Harran – Tuttul route.
The order of the toponyms roughly follows the geographical orientation of the stages on modern maps. North above like on the maps, south below.

The route from Harran to Tuttul follows the Balih in its entire length from north to south to its confluence with the Euphrates near Tuttul. While W. W. Hallo stated 1964 for this strech of the route[343]

> "Perhaps the most difficult problems of the whole Itinerary are posed by its final stage: from Harran to Emar (and back)."

and while he got just this section wrong because he was looking for Tuttul north of Emar / Imar on the Euphrates, today it is probably the best known section of the route, for now all the stations on the map can be identified with relative certainty.

The Balih Valley was a broad band of fertile or marshy land crossed by small watercourses; this was so, at least, until about 1990 AD, after which massive irrigation on the Turkish part of the Balih led to the almost complete desiccation of the river course.

There are many small and some medium sized but few large tells along its course, which may have several factors: arable land is limited; the southern part is outside the rain-fed farming zone and is thus bordered on the west and east by steppes, which have always been nomadic territory and generally politically unstable.[344] The Balih was an unpredictable watercourse in pre-modern times. In spring, it could cause huge floods, whereas in summer it carried very little water. Travellers of the 19th and early 20th century describe this very vividly.[345]

The Balih Valley was first archaeologically surveyed by M. Mallowan in 1938. He describes the marshy environment, in which[346]

> "the river describes a zigzag course and with innumerable ramifications wends its way between steep and reedy banks to join the Euphrates at Raqqa... in its lower reach it becomes a marsh several kilometers in width."

He describes how in this "malaria-ridden district" with "myriads of wild fowl" many townships were difficult to access, and that—when working at Tell Sahlan—the workmen could sometimes reach the tell only by swimming.[347]

A Dutch team surveyed the Balih Valley in the 1980s. Hans Curvers worked on the Middle and Late Bronze age period of this survey in his unpublished dissertation, which he kindly made available to us.[348] He attributes 58 sites to the Middle Bronze II period, i.e. to the time of the RTE. Of these sites, he describes only four as centres:[349]

> "Early-Second-Millennium society in the Balikh Drainage was organized around a few centers of administration and distribution: Bi'a, Saman, Sahlan, and Harran."

Curvers describes five tells as being larger than 5 ha, viz.
– Tell Sahlan (7.5 ha; with city wall; probably Sahlala § 5.I.3),
– Hammam al Turkman (7 ha) (= Zalpah § 5.I.4),
– Tell es-Semen (9 ha, probably Ahuna § 5.I.6),
– Tell es-Sedda (10 ha, probably Ṣerda § 5.I.5) and
– Tell Bi'a (36 ha) (= Tuttul § 5.J.1).

Most of the other sites in the Balih Valley measure less than 1 ha and can at most have been villages by today's standards.[350]

342 Hallo 1964: 82a.
343 Hallo 1964: 76.
344 For the nomadic zones of the Middle Bronze Age in this area, see Einwag 2010.
345 See Dietz 2023, this volume.
346 Mallowan 1946: 112.
347 Mallowan 1946: 114.
348 Curvers 1991.
349 Curvers 1991: 218.
350 This is one of the reasons why we propose the mentioned sites as candidates for the locations mentioned in RTE, which are also known from other sources as being larger settlements. However, if there were no further information about the way-stations from the cuneiform texts, we could say little about the identification, since undoubtedly the travellers could just as easily have pitched their

Further information on the Balih valley and the adjoining area to the west is obtained from the Westjazira Survey conducted by Berthold Einwag 1992-1993. It covered the entire area between the Euphrates and the Balih on Syrian territory, including the fertile valley of the Qaramuh (a tributary of the river Balih), along whose course lay such important sites as Tell Hajeb (Hig. No. 431, probably ancient Irrid) and Bandar Khan (Hig. No. 440, perhaps Šubat-Šamaš/Hanzat).[351] In the course of the survey, Tell es-Semen and es-Sedda were again visited by B. Einwag and A. Otto and MBA pottery was observed.

The following map (Fig. 21) was created with the help of B. Einwag and cartographically realised by C. Fink. Based on Einwag's survey as well as other surveys in the valleys of Balih and Euphrates, it lists the sites of the second millennium in the area between Euphrates and Balih. The size of the points roughly reflects the size of the sites.

5.I.1 Harran (Hig. No. 57, certainty 3)

Surprisingly, the entry for Harran[352] in text B: 32, which was written on the outward journey, contains the precision URU ŠÀ KASKAL, literally "city + centre + Harran/way".[353] Only in Harran and Imar is the place specification concretised by ŠÀ "*libbum*". But URU, *ālum* is also not used elsewhere in the RTE. Is the author etymologising the place name as "town in the middle of the way"? And why is this spelling not used for the return journey in text A?

Can it be concluded from ŠÀ regarding Harran and Imar that the overnight stays otherwise tended to be on the outskirts or outside the town, possibly in some kind of *kārum* or a road station close to the city wall? W. W. Hallo had commented on this:[354]

> "Most probably, though the layover in both cases lasted only one night, it occurred within the walls of the city on the outbound trip or, literally in the 'central city.' The expression ^{URU}ŠÀ.KASKAL is, in other words, comparable to ^{URU}*lib-ali* frequently used of 'downtown Assur.' The determinative URU was employed here and nowhere else in the Itinerary (not even with Emar, where ŠÀ also occurs) apparently, we must conclude, as a kind of substitute for the postpositive determinative KI which otherwise was used throughout A (except with KASKAL!) and B for logographically written place names."

At the time of Zimri-Lim, Harran was one of the capitals of Greater Zalmaqum, i.e. the Balih tributary area. It was politically independent, its ruler was Asdi-takim. For this period we know that the whole area of Zalmaqum was strongly influenced by nomadism. The sanctuary of the moon god Sin,[355] the Ehulhul, had great importance for the Yaminite nomads. Harran is never mentioned in the Tell Leilan archives, only the powerful neighbour Nihriya (probably Kazane Höyük), which thus perhaps occupied a position of political supremacy, sent messengers to Šehna.

Harran is one of the rare examples of a Bronze Age town that has retained its name throughout the millennia.[356] It is spelled in the texts of the RTE, but also in a letter of the Mari archives with the logogramm KASKAL, which reflects the etymology of the place name "journey, caravan". Nicholas Postgate described the reasons for this as follows:[357]

> "H. lies in the flat plain of the Cullab (Ğullāb), ca 40 km SSE of modern Urfa, between the Tektek Dağ to the E. and a similar range of low hills to the W. The site has no particular natural advantages, and during the middle ages at least its water supply was poor; until recently its sole source of water was the Bīr Ja'qūb, W. of the city walls. The site owed its continued importance to its position on the trade routes, especially that running E.-W., close to the hills of N. Mesopotamia."

5.I.2 Apqum-ša-Baliha, probably ʿAin al-Arus (Hig. No. 977, certainty 2)

The first stop after Harran was Apqum-ša-Baliha: "Source of the Balih".[358] Was this the name of a settlement at the Balih spring, or did the travellers set up camp at the spring on the green lawn? An identification with ʿAin al-Arus is

tents in or near a village as in or outside a larger town. The idea that the travellers needed well-fortified stations that would manifest themselves archaeologically as a tell site—possibly even with a city wall—is not compelling, for they also set up camp twice only "on the banks of the Euphrates" or once "in the mountains of Asam and Aba", without a settlement seeming to have existed.

351 For these sites see Einwag 2006, Einwag 2007. The bibliography on the identifications can be found in Ziegler & Langlois 2016: 167-168 (s.v. Irrid) and 346-347 (s.v. Šubat-Šamaš).

352 Ziegler & Langlois 2016: 126-127.

353 The parallel passage in text A is not preserved for the outward journey. For the way back, the scribe notes the place name in A: iii 8 KASKAL.

354 Hallo 1964: 77a.

355 Postgate 1972-1975: 124b-125a.

356 Postgate 1972-1975: 122 on the place name in the historical tradition. In the 20th century Harran was given a new name: Altınbaşak.

357 Postgate 1972-1975.

358 For the etymology of Apqum see above on Apqum-ša-Addu § 5.F.1.

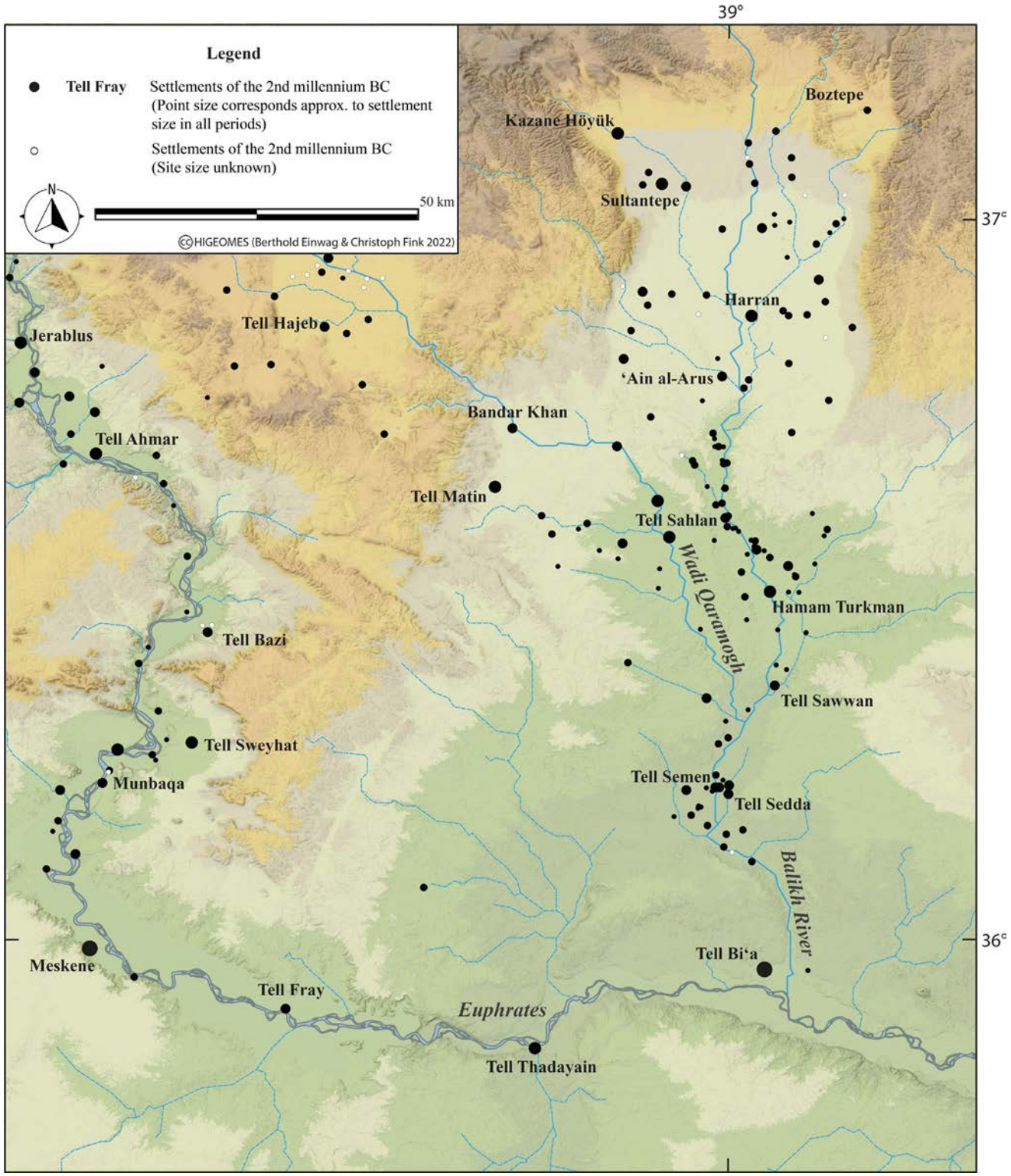

Fig. 21 : Map of the Western Jazira between the Euphrates and Balih with all identified 2nd millennium sites.

Fig. 22: The spring pot ʿAin al-Arus in August 1985 (Photo : Adelheid Otto).

The main course of the Balih rises further north in what is now Turkey, but then seeps away and only resurfaces north of Tell ʿAbiad. However, the Balih has several tributaries in its upper reaches, the most spectacular of which is the large spring pond ʿAin al-Arus ("Well of the Betrothed").[363] Since the 1990s, with the drastic drop in groundwater levels, this spring pool has unfortunately also dried up. But until the 1980s, this large pond was an extremely pleasant, paradise-like place, surrounded by meadows and trees, in whose water children were bathing and which literally invited for a rest[364] (Fig. 22).

likely. There is even a small tell on the bank of this spring pot, which allegedly also has Middle Bronze Age sherds.[359]

The archives from Mari, which document the Balih area well, do know several toponyms Apqum,[360] but it is very questionable whether Mari texts refer to the Balih Apqum of the RTE.[361] This possible silence of the Mari sources argues, in our view, against an identification of Apqum with a real city.

So if Apqum was not an urban settlement, perhaps not a permanent settlement at all, the possible identification is ʿAin al-Arus, which has already been suggested by A. Goetze and never had to be questioned since.[362]

5.I.3 Sahlala / Sihlalu = probably Tell Sahlan (Hig. No. 103, certainty 2)

Sahlala or Sihlalum[365] was one of the more important places in the Balih region in the Old Babylonian period, even though it was not a capital. Yasmah-Addu wrote to his mother that Larim-Numaha had come from Aparha with 3,000 soldiers and had taken the city, whereupon he had rushed to help and had already recaptured Ahuna (see below § 1.6).[366] Sahlala remained an important centre in the Balih region in the following period, since texts from the time of Zimri-Lim[367] and of Middle Assyrian and Neo-Assyrian times[368] attest for it, and since its name may have survived until today.

Tell Sahlan (Hig. No. 103) is one of the few larger centres with settlement in the 2nd millennium in the Balih Valley. For this reason, but also because of the similarity of its name, it has been identified with ancient Sahlala

359 Curvers 1991, site no. 276, dating to the Balikh VIIB period.

360 Ziegler & Langlois 2016: 30-32 distinguish three Old Babylonian sites called Apqum.

361 A Der-ša-Apqim of the Mari archives must probably be distinguished from our RTE Apqum. It was probably located in the steppe east of the Balih tributary area, perhaps at a spring or well that gave it its name (for the etymology see above § 5.F.1). The bibliography on the Old Babylonian homonyms Der is quite confusing, see Ziegler & Langlois 2016: 76-79. As noted there, Der (2) and Der (3) (= *Der-ša-Apqim*) can probably be united into a single entry, the location must be sought in the area between Hasseke and Tell Biʿa.

362 Goetze 1953: 61b "Apqum ša ^{d}Balīḫa is the town near the impressive pool which forms the source of the Balikh river and is known as ʿAin al-'Arūs or ʿAin Ḥalīl ar-Raḥmān, the maps show it 2 km south of the railroad station Tell ʿAbyad. The town at the pool may be the one which in the 'census of Harrān' is simply called *Balīḫu*." See also Hallo 1964: 77-78 and Córdoba 1990: 361. A. Goetze (*ibidem*) also suggests several tells of the surroundings in case one had to look for a town, but he seems not to have been really convinced of this, probably rightly so.

363 Mallowan 1946: 112 reports that the local tradition associates ʿAin al-Arus with the meeting of Abraham's servant and Rebecca, and also that of Jacob and Rachel.

364 Numerous Friday excursions of the excavation team from Tell Biʾa had this beautiful bathing lake as their destination. Adelheid Otto's thanks go to the excavation director, the late Eva Strommenger, who organised many unforgettable excursions to places worth seeing for the team, and always enjoyed taking us to places where one could swim.

365 Ziegler & Langlois 2016, 296-297.

366 ARM 10 178. The capture of the city is also reported in letter M.8823, see bibliography in www.archibab.fr/ T5734).

367 Durand 2023.

368 Cancik-Kirschbaum & Hess 2016: 117-118 (Sahlala was a governor's seat) and Bagg 2017: 517.

earlier.[369] Tell Sahlan is situated on the west bank of the Nahr al Turkman, a tributary of the Balih, measures 7.5 ha and has a city wall. There seems to have been a lower city to the west and south-west.[370] In 1938, M. Mallowan made a number of soundings in the imposing, 40 m high central mound, in which he cut, among other things, Old Babylonian levels.[371] He even found a small fragment of a cuneiform tablet from the 2nd millennium on the slopes.[372]

Tell Sahlan is only 11 km as the crow flies from 'Ain al-Arus (Apqum-ša-Baliha § 5.I.2), and the next stop took place in a distance of only 12.5 km at Zalpah (Hammam at-Turkman § 5.I.4), meaning two very small stages. On the return trip, no stop was made in Sahlala. Short stages can have various reasons, and especially in the Balih Valley they could be related to a multitude of poorly passable watercourses and extensive marshlands.

5.I.4 Zalpah, probably Hammam at-Turkuman (Hig. No. 55, certainty 2)

Zalpah[373] lay in the time of Zimri-Lim of Mari immediately north of his sphere of influence and belonged to the independent part of Zalmaqum, but already his ancestor Yahdun-Lim had led a campaign against this city[374] and Yasmah-Addu had problems asserting his authority there.[375] Zimri-Lim's informants in Tuttul, or in the steppe region of Der, did not have direct access to Zalpah, as e.g. this letter shows:[376]

> "The kings of Zalmaqum arrived in Zalpah and wrote to the kings of the Yaminites for a meeting. These men returned to Zalpah for the meeting, but so far I have not had any information about this meeting."

Numerous texts in the Mari archives refer to this city, which is often mentioned as the antithesis of Ahuna (§ 5.I.6) and Tuttul (§ 5.J.1).

Zalpah can very probably be identified with Hammam at-Turkuman (Hig. No. 55), following a suggestion by his excavator Maurits van Loon. It is a steep, imposing tell of 7 ha, which has a centuries-old sequence of levels and shows significant Middle Bronze Age remains, including a "Middle Bronze Administrative Complex" on the summit of the tell and a kārum-like arrangement of dwellings at the foot of it.[377]

5.I.5–5.I.6 The neighbouring towns of Ṣerda and Ahuna

The next stop towards the south is Ṣerda on the way to Imar and Ahuna on the way back. The fact that the two sites are mentioned as alternative stations between Zalpah and Tuttul on the outward and return routes of the itinerary, indicate that both were located roughly midway between Zalpah and Tuttul. This has led to the search for two medium-sized, adjacent Middle Bronze Age sites. This is true of Tell es-Semen (Hig. No. 271) and Tell es-Sedda (Hig. No. 459; also called es-Semen Sharqi on some maps; in Curvers 1991: unnamed Tell 84), which are only 1.8 km apart (Fig. 23). Tell es-Semen with about 9 ha and Tell es-Sedda with about 10 ha represent the two largest tells in the Balih valley between Tell Bi 'a and Hammam et-Turkman, and today both lie directly on the main course of the Balih. Middle and Late Bronze Age pottery is found in Tell es-Semen and in Tell es-Sedda.[378]

Tell es-Semen consists of two elevations located west and east of the Balih.[379] Curvers describes Tell es-Semen as one of the few urban centres in the southern section of the Balih Valley, while referring to the other settlements as villages.[380]

The identification of these two sites as Ahuna and Ṣerda respectively is probably correct. However, there are no real clues as to which of the two sites should be identified with which of the two names. The identification with Tell es-Sedda was already suggested by Joaquin Córdoba,

369 Hallo 1964: 78a suggests this identification. Cf. Córdoba 1990: 363.

370 Curvers 1991: no. 247.

371 Mallowan 1946: 138, Fig. 1.

372 Mallowan 1946: 140: "A minute fragment of a cuneiform clay tablet was discovered on the slopes of T. Sahlan, and this proves that some written records are to be found in the valley, not later than the second millennium B.C."

373 The Old Babylonian sources make it difficult for us to distinguish the Zalmaqum city of Zalpah from Zalpa/Zalba(r)/Zalwar, a kingdom to the west of the Euphrates. S. Ziegler & Langlois 2016: 420-423 s.v. Zalpah (1-2) and Zalwar. This probably also explains, among other things, why Hallo 1964: 78b was misled.

374 Charpin & Ziegler 2003: 38, 58. A year name of Yahdun-Lim celebrates the capture or destruction of the city of Zalpah.

375 See below in § 5.I.5 to letter A.1487. Zalpah was outside Yasmah-Addu's zone of influence. He could only protest if the Balih water was cut off there for irrigation projects.

376 A.2526, Bibliography in www.archibab.fr/T7160.

377 Cf. van Loon 1988; Meijer 2007: 320-321.

378 Einwag, Kohlmeyer & Otto 1995: 104 fn. 25; Curvers 1991: 185-186, BS-83 (Tell es-Semen) and BS-84 ("no name").

379 Fortunately, Corona aerial photographs from the 1960s exist (see Fig. 23) showing the landscape before the extensive construction of large canals that today severely affect Tell es-Semen and the adjacent area.

380 Curvers 1991: 204-214.

mainly because of the similarity of the names.[381] The textual evidence from Mari and Tuttul also testifies to the close proximity between the two towns, which are very often mentioned together.[382] The fact that they were located on different sides of the Balih River or at least a tributary (see Fig. 23) could be confirmed by textual evidence, which is unfortunately poorly preserved.[383] The towns both belonged to an administrative district in the domain of the Uprapean nomad king.[384] Texts from Jasmah-Adad's palace in Tuttul prove that Ahuna and Ṣerda were administratively connected to Tuttul.[385]

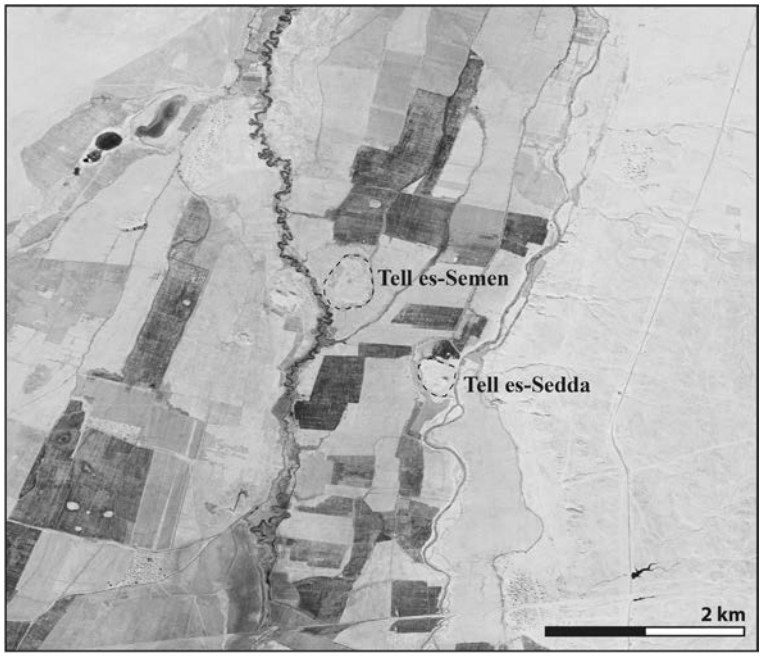

Fig. 23: Tell as-Semen and Tell as-Sedda, probably Ahuna and Ṣerda in the Balih valley (Corona satellite image 1968).

5.I.5 Ṣerda / Ṣerdi, probably T. es-Sedda (Hig. No. 459, certainty 2)

The author of the Itinerary B: 36 notes "*ṣe₁-er-di*"—while almost all texts of the archives from Mari and Tuttul write *ṣé-er-da*.[386] The site was on the Balih downstream from Zalpah but upstream from Tuttul. The Balih water apparently flowed too sparsely and the lack of this resource led Yasmah-Addu to write a letter of protest to his father (and master) Samsi-Addu, as his authority no longer extended to Zalpah (§ 5.I.4). In the letter he pleaded that only one authority should have the waters of the Balih:[387]

"Formerly, when La'um, Mašum and Mašiya had gone to my lord, my lord charged them as follows concerning Tuttul:

'Gather the waters of the Balih for Tuttul, let one cultivate mu[ch] land! In Ṣerda the field is [few] and far between. Who will take the grain that is now the[re]? Instead of Ṣerda, let them cultivate field of the irrigation district of Tuttul!'

This my lord has commanded them. Now much field is cultivated in Tuttul. But Ili-uri went to Zalpah and has shut off the waters of the Balih. He has also driven away the ploughmen whom I put there. I wrote to him and he replied to me as follows:

'Is it then possible that I should do this without (permission from) my commander, Iškur-lutil? Iškur-lutil has given me the order and I have shut off the water!' This he replied to me.

Is there a river for which two people give orders? What can Tuttul do without water, after the water of the Balih is shut off there? My lord knows well that Zalpah has been walking in the wake of Tuttul since early times! Now, why do they claim Zalpah? May my lord give oders to Iškur-lutil, they should not claim Zalpah [and] gather the waters of the Balih for Tuttul. The whole surface of Tuttul's cultivated land is to be cultivated."

This letter allows the conclusion that Ṣerda was above all an agriculturally quite active centre, although it was obviously sparsely populated. We know that at least one plough team was housed there. In Yasmah-Addu's eyes, it was too far away from the more densely populated Tuttul, and had less land available for farming. The texts from Yasmah-Addu's palace in Tuttul also show that Ahuna and

381 Córdoba 1988, Córdoba 1990.

382 See, among others, Durand 2023 and there especially the letters ARM 34 65, 73 and 76. ARM 26/1 153 mentions oracle enquiries concerning Zalpah, Ṣerda and Ahuna. Of particular interest is the letter FM 7 6 which reports that the Yaminite Hardum was staying with other nomadic princes in Ṣerda, while members of his household were staying in close proximity (*qerbiš*) in Ahuna. See also ARM 1 118.

383 We thank J.-M. Durand for this information, which he gave us before the publication of the volume Durand 2023. ARM 34 76 mentions Ṣerda, fields of Ahuna, and in fragmentary context the expressions "eastern" and "western" (*aqdamatum* and *aharatum* [of Balih]).

384 See ARM 34 73.

385 Krebernik 2001: 12; 80, KTT 118: this text mentions people from Ahuna who took barley from Ṣerda and brought it to Tuttul.

386 Ziegler & Langlois 2016: 316. The text ARM 23 625: 4 has *ṣí-ia-ar-da*^{ki} which supports the interpretation Ṣerda (and not Ṣirda), since in Upper Mesopotamia i+a is often rendered as ê….

387 A.1487+ has been published and discussed by Villard 1987. See further bibliography in www.archibab.fr/T4236.

Ṣerda were administratively linked to Tuttul.[388] At the time of Zimri-Lim, the place hosted Yaminite nomad rulers,[389] who were in bad terms with Zimri-Lim.

The site is still attested in texts of the Middle Assyrian period and was probably located on the opposite bank and south of Sahlala.[390]

5.I.6 Ahuna, probably Tell es-Semen (Hig. No. 271, certainty 2)

Ahuna,[391] which can be located near Ṣerda, was a place for gatherings of nomads and their leaders.[392] A letter states:[393]

> "The sheikhs of the Yaminites have gathered in Zalpah and went to Ahuna."

and in another letter, Zimri-Lim is given the following explanation:[394]

> "My lord knows well the ways of the nomads, that when they leave, (it is for) about ten days that they go. Moreover, as for the chiefs of pasture whom my lord ordered me to bring back, I was delayed but now, I will bring back all of them before I leave. At the time appointed for them, I will wait for them in Ahuna."

The location of Ahuna and the favourable access to the nomadic steppe on an east-west route could have been a reason for this role of Ahuna.[395] In a letter, a gouvernor reported to Zimri-Lim:[396]

> "The entire auxiliary army has returned to its homeland. And the nomad's army has taken the road from Ahuna to the steppe. They left Yanṣibum with the troops in Ahuna."

So the city must have had enough space to accommodate the nomads and their herds. It may also have had enough space for tents and certainly permanent access to water, which allowed for larger gatherings. We also know that the city housed a temple of Annunitum.[397] This may have been indirectly alluded to by Hammi-ištamar in his famous letter describing his long experience during the nomadic meetings in Ahuna, which apparently were not always peaceful:[398]

> "So far I have almost perished and saved myself from death. In the middle of the city of Ahuna, ten times I managed to get out of a riot. Why now do you not consider me a Dumuzi? At the count of the year, he is killed; at each [spring] he returns to the temple of Annunitum."

Tell es-Semen (BS-83 in Curvers 1991) is a mound, 400 by 300 m large and 17.5m high, who—following Curvers—was a city of about 9 ha in his Balikh VIIB period, which corresponds to the period under consideration here. H. Curvers (1991: 185) states that "Balikh VII sherds were collected on all slopes and on two small secondary mounds".

If Tell es-Semen can be equated with Ahuna, it would be interesting to investigate the site closer because of its role as a nomadic gathering place. Were there still city walls? At least, H. Curvers (1991: 185) mentions a city walls of the 3rd millennium. Who guarded the gates? How was access to the water regulated? Where was the open space for setting up nomadic camps, and the possibility of isolating oneself from unwanted neighbours, members of other tribes and guaranteeing the safety of families? And what role did the cult of Annunitum, the cult of Dumuzi play in this milieu?

Our Old Babylonian travellers, on the other hand, had stopped in Ahuna without belonging to the milieu of the Yaminite nomads. Texts also attest to the presence of tax officials in Ahuna who had to collect the *miksum* levy.[399]

The toponym Ahuna has not yet been attested in the Middle or New Assyrian texts. If the identification with Tell es-Semen is correct, Ahuna could have continued to exist under a different name, since the Tell was still inhabited in the Late Bronze Age.[400]

388 Krebernik 2001: 12; 80. See fn. 385.

389 FM 7 6. See also Durand 2023 for this dossier.

390 Cancik-Kirschbaum & Hess 2016: 119-120 s.v. Serda. In their commentary they note "town on the Balīḫ south of Saḫlālu, apparently on the opposite side of the river". Neo-Assyrian texts do not yet attest to the toponym.

391 Ziegler & Langlois 2016: 12-13. J.-M. Durand argues for interpreting the toponym Ahhuna, since the unpublished letter A.1209: 9 attests the spelling *a-ah-hu-na-a*^{ki} (Durand 2004: 115 n. 20, see ibidem for an etymology that can be traced back to the root HN' "tent camp"). Since only one document has this spelling, we leave the question open and continue to write Ahuna.

392 A.987 (cf. bibliography www.archibab.fr/T9225); ARM 26/1 24; ARM 28 25 (and against the identification of the author with the ruler of Karkemiš, see Charpin & Ziegler 2002: 203 n. 290).

393 ARM 2 53: 12-14.

394 ARM 33 80: 18-25.

395 Cf. Charpin 2023, this volume.

396 ARM 14 92: 17-22. For the historical context, see Charpin 2021: 542.

397 KTT 28.

398 A.1046 (cf. Bibliography www.archibab.fr/T1011): 39-44.

399 J.-M. Durand will edit in ARM 35 the unpublished letter A.439, quoted in Charpin & Ziegler 2003: 182-183 n. 96 and in Durand 2004: 171 n. 334 (erroneously under the number A.469). In it, the Yaminite prince Yasmah-Addu mentions servants of the ruler of Aleppo, Yarim-Lim, who were working as tax collectors in Ahuna (ÌR.MEŠ *ia-ri-im-li-im ša i-na a-hu-na*^{ki}, *ma-ki-sú-tam e-pí-šu*).

400 Fink 2016: 46, Hig. No. 271; Curvers 1991: 185-186, BS-83.

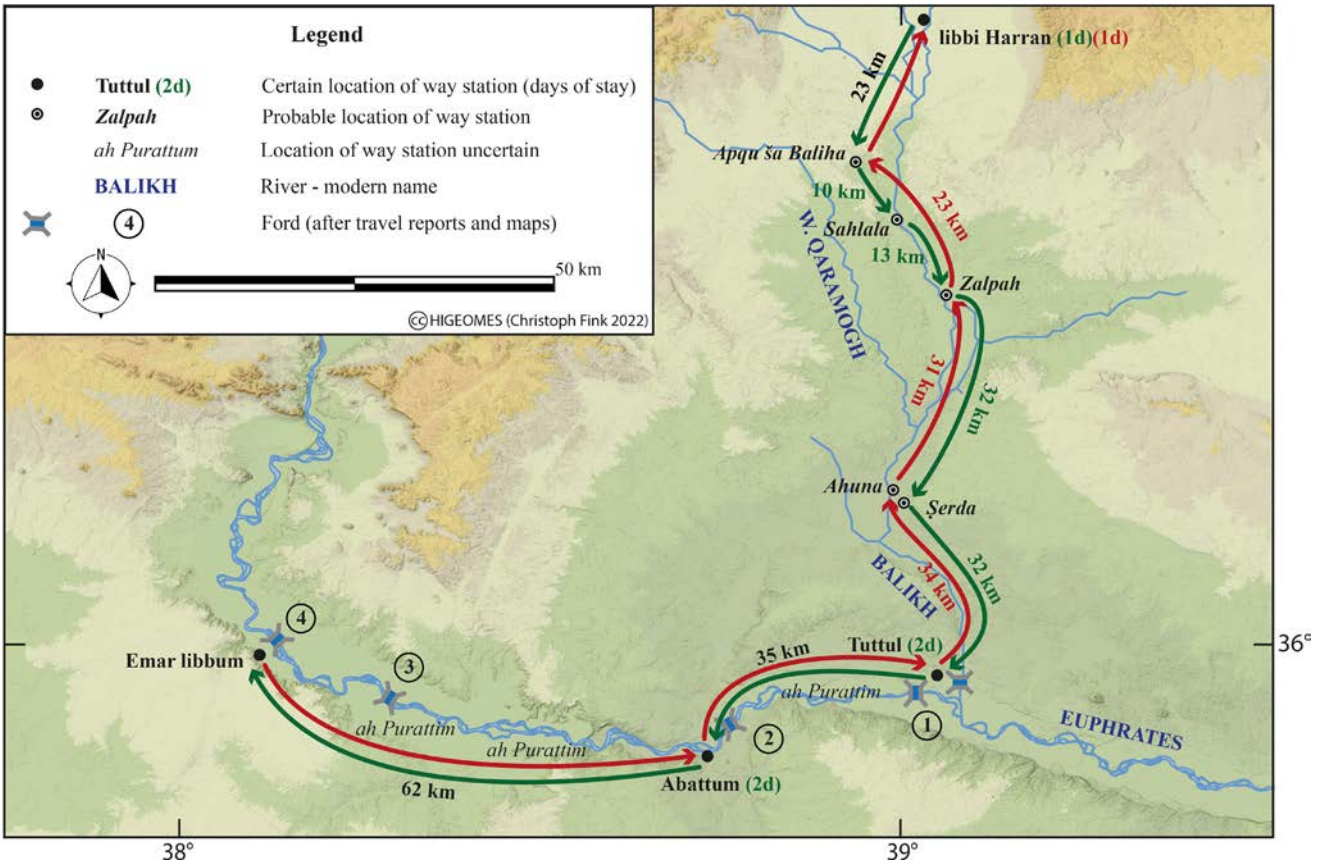

Fig. 24: RTE sections I and J along the Balih and the Euphrates.

5.J From Tuttul to Imar / Emar

The travelling group finally entered the Euphrates valley in Tuttul (Tell Bi'a, § 5.J.1). From there, the travelling party probably proceeded westwards along the same northern bank of the Euphrates. Abattum (Tell ath-Thadayain, § 5.J.2) was the only settlement visited on this stretch of the route, which is nevertheless almost 100 km as the crow flies. On the way to Abattum, an overnight stay had to be planned, which is only referred to in the itineraries as *ah Purattim* "bank of the Euphrates" (§ 5.J.3). Obviously, a camp was set up in the Euphrates valley and no settlement was visited. Likewise, between Abattum and Imar, several overnight stays were necessary on the banks of the Euphrates. This is unusual when one compares the section of the route with the other stages of the Old Babylonian itineraries. Were there no other fortified settlements in this area?

Destination	Stages of the outbound trip from east to west (to be read from right to left)						
Imar *libbum* § 5.J.6 ↪	*ašar bahra īsihū* ←		*ah* Purattim ←	*ah* Purattim ←	Abattum ←	*ah* Purattim ←	Tuttul ←
	§ 5.J.5	§ 5.J.4	§ 5.J.3	§ 5.J.3	§ 5.J.2	§ 5.J.3	§ 5.J.1
		→ [...]attum		→ *ah* Purattim	→ Abattum		Tuttul
	Return trip to the east						

Table to § 5.J : Overview of the stages from Tuttul to Imar.
The order of the toponyms roughly follows the geographical orientation of modern maps: east as on the maps on the right, west on the left.

Within the framework of a survey carried out in the Euphrates valley between Tuttul and Imar, virtually no Middle Bronze Age tells were actually found in the valley between Tell Bi'a and Tell ath-Thadiyain.[401] The Old Babylonian texts confirm this impression of a desolate, sparsely populated area. The valley downstream from Imar is described in a

401 Kohlmeyer 1984, Kohlmeyer 1986. On this area as well as the route of the Road to Emar on Syrian territory, see Otto 2000: 4-10.

letter as *madbarum* "desert wasteland" and the passing of it as extremely arduous.[402]

At the time of the Mari archives, this area was the tribal territory of the Yaminite Rabbeans.[403] Even at the time of M. von Oppenheim's passage in 1899, the stretch between Raqqa and Meskene was the exclusive tribal territory of the Fed'an-Welde. M. von Oppenheim describes that the nomads stayed in the steppe areas north and south of the Euphrates in winter, but moved into the valleys in summer.[404] Even today, the area is sparsely populated. The areas outside the river valley are virtually free of settlements. Likewise, the Fed'an-Welde still live here today and parts of the communities still move around with tents. The reason for this is the rainfall, as the borders of the rainfed farming zone with more than 200 mm precipitation runs north of Imar and Tuttul. However, as the area outside the deeply incised river valley is made up of limestone heights, irrigated farming has been difficult, so no agriculture was practised in this area.[405]

Tuttul lay to the north, close to the left bank of the Euphrates, Imar and Abattum on the right bank. Where the river, which is powerful and torrential in this area, was crossed is not explicitly stated. It is therefore unclear whether the route between Tuttul and Abattum was chosen north or south of the Euphrates. Where the Euphrates was crossed is essentially related to the location of the fords. Fords, along with mountain passes and clearly identifiable settlements, are probably the most important anchor points for reconstructing an ancient travel route. However, the localisation of these ancient river crossings, due to river straightening, the construction of dams and bridges displacing the modern routes, turns out to be difficult, especially since the names of these crossings vary and there were probably simply no official designations if there was no settlement in the vicinity. It is also often difficult to assess the significance and duration of use of the fords cited in the literature. Their accessibility depended, for example, on the season, i.e. the water level of the river.

On the stretch between Tuttul (Tell Bi'a) and Imar (Meskene), at least four places where the Euphrates could be crossed are mentioned more or less frequently in the travelogues of the 19th and 20th centuries BC and are recorded on contemporary maps. For our map (Fig. 24) we have adopted these possible fords and marked them with the numbers 1-4. According to Alois Musil, the easternmost ford (**Ford 1**) was located near Raqqa,[406] although he himself crossed the river here in the spring of 1912 by means of a ferry boat ;[407] also M. von Oppenheim reported in a footnote on this ford, which was also called "Suāfi".[408]

Between Tuttul and Abattum there was a second good possibility to cross the Euphrates (Fig. 25). This **Ford 2** was east of Tell ath-Thadayain near the Roman-Byzantine Sura, where Oppenheim already identified the remains of a bridge in the Euphrates, indicating a ford or an easy place to cross the Euphrates. Ancient bridge piers are still visible there in the Euphrates today (see e.g. Konrad 2001). This crossing (Ford 2) was also commonly called the "Ford of al Hammam" by European travellers through the Near East. Friedrich Sarre and Ernst Herzfeld describe it as a camel ford[409] and, according to Francis Chesney, it could only be used at low water:[410]

> "About 36 miles below Balis, following the course of the river, are the ruins of Sura, and about six miles lower is the ford of Al Hammam, by which at the low season the river Euphrates may be crossed, but with some difficulty, the water being up to the breast."

According to A. Musil,[411] however, there was a much easier place to ford the Euphrates at Tell ath-Thadayain.

Ford 3: Further west, around the site of Dibsi Faraj, there was probably another area from where it was easier to reach the Euphrates valley from the limestone plateau and then cross the river. The ancient site of Dibsi is about 15 km southeast of Meskene and was inhabited from Roman times until late antiquity.[412] European travellers

402 ARM 26/1 14: 10, see the text www.archibab.fr/T7113. An English translation can be found in Heimpel 2003: 183-184 and in Sasson 2015: 109-110.

403 See for the rich bibliography Ziegler & Langlois 2016: 278-279. See on the Rabbeans in the area between Tuttul and Imar Ziegler 2009: 187.

404 Oppenheim 1939.

405 On the role of the nomads in this area in the second millennium, see Einwag 2010. Arable farming west of Raqqa has only been possible for about the past 30 years, because large canals divert the water of the Balih and deep wells were drilled. Since then, the Balih no longer carries water at almost any time of the year, and the groundwater level has dropped so dramatically that fossil groundwater has to be drilled at great depths.

406 Musil 1927: 185.

407 Musil 1927: 91.

408 See Oppenheim 1900, 5, fn. 3. M. von Oppenheim lists the four fords reproduced here as "Suafi" (near Raqqa), "Haragla" (near Hammam), "Schodha" (near Dibsi) and the ford of Meskene. However, it must be pointed out that von Oppenheim had not yet travelled through the Euphrates valley himself at this time (1900) and that he knew these fords from other sources or from local Bedouins.

409 Sarre & Herzfeld 1911: 153.

410 Chesney 1850: 416.

411 Musil 1927: 220.

412 Harper 1975.

Fig. 25: The section of the route along the Euphrates on a map by R. Kiepert and K. Werner (1911) with the possible fords and river crossings (marked with numbers 1 to 4).

sometimes equated it with the ancient city of Thapsacus, known by Xenophon.[413] This site, also known as the camel ford, is most likely the "Shota" ford mentioned by Oppenheim.[414] The term "camel ford" usually implies that these places could not be crossed by smaller mounts, since the shoulder height of a camel or dromedary is over 2m, whereas donkeys only have a withers height of about 1m. However, our Old Babylonian travellers arrived here in high summer when the Euphrates used to have low water.

Finally a last possible crossing of the Euphrates (**Ford 4**) is to be sought near Meskene itself, as at least F. Sarre & E. Herzfeld[415] and as M. von Oppenheim report. A. Musil mentions a ford at Samûma, 6 km north of Bails (Meskene), where even in his time trade caravans used to cross the Euphrates and then travelled across the western Jazirah to Harran.[416]

5.J.1 Tuttul = Tell Bi'a (Hig. No . 27, certainty 3)

The localisation of Tuttul was one of the few weak points in W. W. Hallo's reconstitution of the Itinerary, although Margarete Falkner had already in 1957 assumed the "Tuttul" stage in Tell Bi'a.[417] The identification of this important city of about 40 ha, excavated under the direction of Eva Strommenger, could only be definitively proven by the cuneiform tablet finds of 1992.[418]

Tuttul has had a chequered political history.[419] In the 19th century, it was an independent political power ruled by the Yaminite king Bahlu-kullim, Sheikh of the Amnanum, until Yahdun-Lim conquered Tuttul and integrated the city into the Mari territory. Yasmah-Addu also had suzerainty over the city and spent much time there. Most of the archival texts found in Tuttul date from his time.[420] The palace of Tuttul came to an end and was abandoned for good when Samsi-Addu died and his son Yasmah-Addu could no longer hold Tuttul.[421] In the days of Zimri-Lim, Tuttul was politically independent from Mari, but Zimri-Lim had appointed a *hazannum* official, Lanasum, to inform him about the area.[422] Hammurabi's troops probably took Tuttul in the course of the same military campaign that led to the fall of Mari.[423] In the Tell Leilan archives, which are probably closer in time to the RTE, Tuttul was a stage of the route leading from Upper Mesopotamia to Aleppo.[424] However, the city lost importance in the following period.

As the crow flies, Tuttul is about 30km away from Tell es-Semen and Tell es-Sedda, which are identified with Ahuna (§ 5.I.6) and Ṣerda (§ 5.I.5).

5.J.2 Abattum, Tell ath-Thadayain (Hig. No. 217, certainty 3)

Abattum[425] can with certainty be identified with Tell Thadayain (Hig. No. 217).[426] The author of text B drew a dividing line at this point. What his motives were for doing so remains unknown.

The mound lies about 30 km upstream from Tell Bi'a and is—as the Arabic name "Two Breasts" already indicates—clearly characterised by two prominent elevations, which probably represent large grave mounds.[427] It measures about 29 ha and lies directly on the Euphrates valley, slightly elevated above the valley on the natural Holocene gravel terrace. The largest wadi flowing from the Palmyrene desert into the Euphrates, the Wadi as-Salam, flows here from south to north and creates a triangular point on which the city of Abattum was built—an ideal strategic situation. The only survey whose results have been published in a preliminary report refers to an occupation during the Early, Middle and Late Bronze Age and already suggests identification with Abattum.[428] Much like Tuttul and Mari, Abattum was founded as a town in the Early Bronze Age and fortified with a mighty city wall.[429] In the Middle Bronze Age it lived on and was the seat of kings.

413 Bell 1911 : 47. On the situation of Thapsacus, see the discussions by Cohen 2006: 149-151.

414 Oppenheim 1900.

415 Sarre & Herzfeld 1911: 121.

416 Musil 1927 : 316-317.

417 Falkner 1957. Like A. Goetze, W. Hallo assumed Tuttul to be upstream from Imar further to the north.

418 Strommenger & Kohlmeyer 1998: 1.

419 Old Babylonian textual evidence in Ziegler & Langlois 2016: 373-375.

420 Krebernik 2001.

421 Contrary to what has been claimed sometimes, the last phase of the Palace A at Tuttul dates to Yasmah-Addu, as is clearly shown by dated cuneiform tablets and hundreds of fragile clay sealings who lay scattered on the floor of the last occupation phase. Probably Zimri-Lim conquered Tuttul, made an inventory of the treasures, and took the valuables off to Mari; see Otto 2004: 161-162.

422 Durand 2023: 179-275.

423 Charpin & Ziegler 2003: 242-245.

424 PIHANS 117 41, see above. § H.10.

425 Ziegler & Langlois 2016: 1-2. Ziegler 2009: 187-189 on the history of the city at the time of Samsi-Addu.

426 See already Otto 2000: 9, fn. 49 .

427 The gravel fill of the tumuli is clearly visible in bulldozer cuts. B. Einwag and A. Otto visited the site several times on their way to their survey area of the Western Jazirah in 1992 and 1993.

428 Kohlmeyer 1984: 111-112; Kohlmeyer 1986: 52 also described the cut through the Early Bronze Age city wall.

429 The place-name *a-ba-tum* mentioned in Ebla texts certainly refers to the 3rd millennium town of Abattum, although sometimes it is

Thadiyain is still the only prominent tell between Raqqa and the Euphrates bend and lies directly on the main road leading from Raqqa to Aleppo. If one follows southwards the Wadi as-Salam, which flows into the Euphrates at ath-Thadayain, one reaches Rusafa-Sergiopolis after c. 25 km. In Roman and Byzantine times, this road was the *Strata Diocletiana*, which continued to Palmyra or turned west through the steppe towards Homs/Qatna.[430]

It can be assumed that the path from Thadayain along the Wadi as-Salam to the south was already important in the Bronze Age. A letter of Samsi-Addu (ARM I 85) names three routes which the troops could choose for Qatna, and one of them, which we now know was preferred, started at Abattum.[431] The road was therefore already logistically important in Old Babylonian times and led through the steppe towards Qaṭna. This explains why Abattum played an important strategic role. At the time of Yahdun-Lim, i.e. at the end of the 19th century BC, Abattum was the capital of a Yaminite prince of the Rabbu tribe, Ayyalum. Zimri-Lim's mother Addu-duri originated from this family. At the time of Zimri-Lim, the Rabbean ruler Dadi-hadun was king, and undertook construction work to fortify his city, which worried some officials in Mari.[432]

Fig. 26a and b : Tell ath-Thadayain (a: Map based on Google satellite image 2023. b: Photo A. Otto 1993).

5.J.3 Ah Purattim "Banks of the Euphrates"

The area between Tuttul and Imar was sparsely populated and mainly the terrain of nomads (see above). This explains why the travellers had to set up camp on the edge of the river valley on two consecutive days on the way there and possibly only once on the way back (but see § 5.J.4). In fact, archaeologically there are virtually no tells in the area of the Euphrates valley between ath-Thadayain and Meskene, and the area was described in the Old Babylonian sources as *madbarum* "desert land".

searched for farther west; see Archi 2019: 181-183; Otto 2006: 22.

430 Konrad 2001; Dussaud 1927.

431 Ziegler 2009: 187-188.

432 Durand 2023: 222.

5.J.4 [...]-*at-tu-um*

Either a hitherto unknown toponym in Imar's surroundings or a description of the circumstances of the overnight stay. Perhaps *bamatum* the "slope to the steppe", but the doubling of the T is unusual and makes this reading not very likely.

5.J.5 The place where *bahrum* troop has been assigned

62 km as the crow flies separate Abattum (Tell ath-Thadayain, § 5.J.2) from Imar, and the travellers made three stops along the way. First, the travellers of the RTE had to make two successive stages, described only as "banks of the Euphrates" (§ 5.J.3). Then they came to the last stage before Imar (§ 5.J.6). At this very last stop before the city centre of Imar was the place where the merchants spent two days and where an activity was carried out which is noted in text B: 42 "U_4 2.KAM *a-ša-ar ba-aḫ-ra i-ZI-ḫu*".

The verb is certainly *esēḫum* "to allocate". It is attested mainly in relation to soldiers or workers, but sometimes also to barley, fields, boats to be assigned. There is a great deal of evidence, one can consult CAD E 327-329, but the evidence has grown enormously since 1958. In texts from northern Mesopotamia, the *esēkum* variant was preferred. Since the author of the RTE comes from Larsa, the spelling with Ḫ is not unusual. Interesting is the letter AbB 14 167, in which, among others, merchants are accused of having assigned (*esēḫum*) only 16 workers ($ERIN_2$) to the author of the letter, although he actually needed many more workers:[433]

> "Speak to my father: Thus says Imgur-Ninurta. May Šamaš and Marduk for my sake forever grant you good health. I have 20 workers less than the 300 workers which have been assigned to me. While I keep writing to you (about it), you have not answered me. The traders have not given me any (workers). Until yesterday (only) Apil-ilim has given me 5 workers, menials of the god Nergal of Maškan-šapir. I am now carrying out the work with too little workers. And while the traders of Maškan-šapir have assigned (*esēḫum*) me 16 workers ($ERIN_2$.HI.A), I still have five work gangs (KASKAL.MEŠ) too little. (...)"

The word *ba-aḫ-ra* is more difficult and has been much commented on.[434] It is rare in this vocalisation, but occurs several times in the text UET 5 62: 17, 18, 20 and is always written $ERIN_2$ *baḫrum* there. *Baḫrum* can perhaps be translated as "elite troop" or "marine soldier".[435]

The passage in text B: 42 can accordingly—but still with hesitation—be translated as follows:

> "Two days at the place where the elite troops were assigned."

Whether they were escorts for the travellers, or transporters, remains open. Whether the place where the assignment took place was a harbour of Imar, or some kind of a merchants' quarter (*kārum*) on the outskirts of the city is unknown.

5.J.6 Imar / Emar = Meskene, the final destination of the journey (Hig. No. 86, certainty 3)

Finally, it had become high summer, the travellers reached the destination *Imar libbum* (ŠÀ): "Imar – centre". It is noteworthy that in the RTE *libbum* "city centre" only very rarely is added to the place[436] and we assume that this remark was in contrast to the previous overnight stays, which first took place on the river bank and then at the "place where the elite troops were assigned" (§ 5.J.5). In any case, the merchants in Imar seem to have sought out accommodation in the middle of the fortified city. Surprisingly, they only stayed for a short time, as they almost immediately set off on their return journey, which roughly followed the same arc eastwards, even if in many cases other stages were chosen as stops.

Imar is very well attested in the Old Babylonian period.[437] This city was the trading hub between the merchants from Mesopotamia and the Kingdom of Aleppo. Politically, Imar was relatively dependent on Aleppo, but it was not directly part of Yamhad's territory in the 18th century. At this point, the RTE travellers turned back, their mission accomplished.

We can stop here to follow the travellers, since the stations on their way back have been discussed by us above.

6. Summary

The Road to Emar (RTE) can now be reconstructed very precisely thanks to years of preliminary work by many philologists and archaeologists, and with the help of satellite and aerial photography and the study of ancient maps.

433 AbB 14 162, see also www.archibab.fr/T15416.

434 For more dicussion see below commentary to Text B: 42. On the word spelled *ba-aḫ-ra* cf. Stol 2004: 821-823 who sees in *baḫrum* a variant form of *beḫrum*, *bā'irum* "fisherman".

435 See Charpin (in print OBO): fn 15.

436 See already above § 5.I.1 on Harran.

437 See in particular Durand 1990. See also Durand 2023: 89-90.

Only a few stretches of the itinerary remain unclear, but they can at least be narrowed down approximately.

It is more difficult to identify several toponyms with archaeological sites. However, we think that the method used here, to mark on a map a calculated area by means of circles of 10 km diameter in case of unclear identifications, is the best method to serve as a basis for future investigations on the ground. Much research remains to be done before all toponyms can be identified, but one day, we are sure, all stages will be securely identified.

In our reconstruction, we have tried to take into account the natural parameters such as geography, precipitation, availability of resources etc. as well. Of course, they were decisive factors in the choice of a route at that time. They explain why the shortest way was not always chosen, nor was the route that could be covered with the least physical effort, which can be calculated using LCP.

Geopolitical circumstances also were important and primed on the aim to use the quickest way from one point to the next. These geopolitical factors have been commented on in the context of a dating hypothesis according to which the RTE was written at the beginning of Samsu-iluna's reign (see above § 2.6). In this time, the territory of several major kingdoms was crossed – the most important of which we enumerate in the table below.

Political hegemony	**The capital city if chosen as a stage by the travellers of the RTE**
Kingdom of Babylonia	Babylon (§ 5.B.1)
Kingdom Tigris Bank	Aššur (§ 5.E.1) and Ekallatum (§ 5.E.2), whose respective political status are unknown for the beginning of Samsu-iluna's reign
Kingdom of Karana	–
Kingdom of Razama Yussan	–
Kingdom of Apum	Šubat-Enlil (§ 5.G.1)
Kingdom of Sumum, a vassal of Šubat-Enlil	Ašnakkum (§ 5.H.1)
Kingdom of Urkiš, a vassal kingdom	Urkiš (§ 5.G.4)
Kingdom of Yapṭurum	–
Kingdom of Šuda	–
Zalmaqum dominated by Nihriya. Unknown status of Harran (§ 5.I.1) and the various cities of the Balih area	–
City State of Tuttul	Tuttul (§ 5.J.1)
Kingdom of Aleppo and its trading hub Imar	Imar (§ 5.J.6)

The travellers seem to have passed through several important or relatively influential kingdoms on their journey. Our question is, why did the travellers choose almost only secondary places for their stay? Did the travellers want to avoid taxes?[438] Did they succeed in doing so by avoiding the capitals? Were they not allowed to enter foreign capitals? So many questions remain…

Our knowledge of the historical geography of Mesopotamia would be so much less without the three texts of the RTE. We can only be grateful to the travellers of that time for having recorded their daily stages so carefully. We hope that the proposals jointly developed in permanent discussion between philologists and archaeologists will put further research into historical geography on a new level. It is to be hoped that in the coming years many of the sites mentioned here will be identified and that some of our hypotheses can be checked on the ground – we are looking forward to it!

7. New Edition of the Texts

The right-hand column contains the toponym in a normalised spelling and an indication of the § where it is discussed. Only in exceptional cases we give a translation. Especially the information on the length of stay is not translated. These are well recorded in the overview table Fig. 3 (above p. 145-147). In the right column in bold script ancient toponyms with a proposal of identification.

438 Comparisons with the situation of the Old Assyrian merchants are not necessarily permissible. But they knew the "*sukinnum* way", which was used to avoid taxes, but was not welcomed by the authorities in Aššur. See Veenhof 2008: 214-215.

Text A [UIOM 2134]

Text A was published by Goetze 1953 in hand copy. Pictures can now be accessed on the website of the CDLI project, where the text is numbered P420515. Text A contains the compilation of all stages of the outbound and return journey and was probably written after the return to Larsa.

Obv.i	[ITI ŠE.KIN.KU$_5$ U$_4$ 2]6*.KAM BA.ZAL	[Month xii, day 2]6:
2	[U$_4$ x.KAM URU^{ki}-*a*]-*hu*$^{!}$-*ma*	Al-A]humma § 5.A.2
	[U$_4$ x.KAM … x]-*a*-⌜*hi*?⌝	[o o]ahi § 5.A.3
4	[U$_4$ x.KAM *ra-h*]*a-bu-um*	Rahabum § A.4
	[U$_4$ x.KAM …]⌜ki⌝	§ 5.A.[…]
6	[U$_4$ x.KAM …]⌜ki⌝	§ 5.A.[…]
	[U$_4$ x.KAM … *n*]*i*	[…]ni § 5.A.[…]
8	[U$_4$ x.KAM …-*t*]*a*	[…]ta § 5.A.[…]
	[U$_4$ x.KAM …]^{ki}	§ 5.A.[…]
10	⌜U$_4$ 11.KAM⌝ KÁ.DINGIR.RA^{ki}	**Babilim § 5.B.1**
	U$_4$ 5.KAM ZIMBIR.EDIN.NA	**Sippar-ṣerim § 5.B.2**
12	U$_4$ 5.KAM ZIMBIR.BÀD	**Sippar-durim § 5.B.3**
	U$_4$ 10.KAM BÀD-*a-pil*-^{d}EN.Z[U]	Dur-Apil-Sin § 5.C.1
14	U$_4$ 1.KAM *hi-ba-ri-tum*	Hibaritum § 5.C.2
	U$_4$ 1.KAM *kar-ka-ku-la*-[*ti*]	Kar-Kakkulatim § 5.C.3
16	U$_4$ 1.KAM *kar*-UT[U]	Kar-Šamaš § 5.C.4
	U$_4$ 4.KAM *ma-ki-sú*[*m*]	**Mankisum § 5.C.5**
18	*i-nu-ma* ERIN$_2$.HI.A *ip-p*[*a-aṭ/ah-ru*]	" when the men have been relea[sed]/ga[thered]
	ù ^{giš}MÁ.HI.A *i-tu-r*[*a*]*/-nim*	and the boats returned."
20	U$_4$ 1.KAM *hi-ša-tu*[*m*]	Hiššatum § 5.D.1
	U$_4$ 1.KAM *pu-lu*-[*ku*]	Pulukku § 5.D.2
22	U$_4$ 1.KAM *ia-ha-ap-i*[*l*]	Yahappila § 5.D.4
	U$_4$ 1.KAM *ma-ar-me-nu*-[*ú*]	Marmenu § 5.D.6
24	[U$_4$] ⌜2.KAM⌝ *su-qá*-[*qù-ú*]	Suqaqu § 5.D.7
	[*a-šar* ERIN$_2$.HI.]A U$_4$ 2.K[AM]	"The place where] the [men]
26	[*wa-as-b*]*u*-⌜ú⌝	[sta]yed 2 days."
	[U$_4$ 1.KAM *aš*]-*šu-ur*	**Aššur § 5.E.1**
28	[U$_4$ 1.KAM *é-kál-l*]*a-t*[*um*]	**Ekallatum § 5.E.2**
	[U$_4$ 1.KAM *bi-n*]*a*-[*nu-ú*]	**Binanu § 5.E.3**
30	[U$_4$ 1.KAM *sa-qa-a*]	Saqa § 5.E.4
	[U$_4$ 1.KAM *sà-ni-pa-a*]	**Sanipa § 5.E.7**
Obv.ii	U$_4$ 1.KAM *ap-qum ša* ^{d}IŠKUR	**Apqum-ša-Addu § 5.F.1**
2	U$_4$ 1.KAM *ki-iš-ki-iš*	Kiškiš § 5.F.2
	U$_4$ 1.⌜KAM⌝ *ia-ap-*⌜*ṭú-ru*⌝*-um*	**Yapṭurum § 5.F.3**
4	U[$_4$ 1].KAM *ta-ar-hu-uš*	**Tarhuš § 5.F.8**
	U$_4$ 3.KAM *šu-bá-at*-^{d}EN.LÍL	**Šubat-Enlil § 5.G.1**
6	U$_4$ 1.KAM *šu-n*[*a*]*-a*	**Šuna § 5.G.3**
	U$_4$ 3.KAM *aš-na*-[*a*]*k-ki*	"3 days **Ašnakkum, § 5.H.1**
8	*a-šar um-m*[*a-na-t*]*um*	the place where the a[rm]y
	⌜*ra*?⌝-[x x o o x] *im-hu-ru*	[has/was … (and) where] they received/met° […]"
10	U$_4$ [1.KAM *a-la-an*]	**[Alan] § 5.H.2**
	[U$_4$ 1.KAM *pa-na-ah-zu-ú*]	[Panahzu] § 5.H.3
12	[U$_4$ 1.KAM *ma-ma-a-gi*]*-ri*	Mammagira § 5.H.4
	[U$_4$ 1.KAM ŠÀ-*bi* KUR *a-sa-a*]*m*	"[in the heart of Mount Hasa]m
14	[*ù a-ba-a*]	[and Aba]" § 5.H.12
	[U$_4$ 1.KAM *sa-mu-e*]	**[Samu'e] § 5.H.13**

16	[U$_4$ 1.KAM URU ŠÀ KASKAL]	**[Harran] § 5.I.1**
	[U$_4$ 1.KAM *ap-qum ša* ^{d}KASKAL].KUR	**[Apqum-ša-Bali]ha § 5.I.2**
18	[U$_4$ 1.KAM *sà-ah-la-la*]	**[Sahlala] § 5.I.3**
	[U$_4$1.KAM *za-al-pa-ah*]	**[Zalpah] § 5.I.4**
20	[U$_4$ 1.KAM *ṣe-er-di*]	**[Ṣerda] § 5.I.5**
	[U$_4$ 2.KAM *tu-ul-tu-ul*]	**[Tuttul] § 5.J.1**
22	[U$_4$ 1.KAM GÚ ÍD BURANUN]$^{rki\urcorner}$	[Riverbank of the Euphra]tes § 5.J.3
	[U$_4$ 2.KAM *a-ba-at-tum*]	**[Abattum] § 5.J.2**
24	[U$_4$ 1 KAM GÚ ÍD BURANUN]$^{rki\urcorner}$	[Riverbank of the Euphra]tes § 5.J.3
	[U$_4$ 1 {1}.KAM GÚ ÍD BURANUN^{k}]^{i}	[Riverbank of the Euphrates] § 5.J.3

(End of col. ii is broken. It is clear that the whole outbound trip filled the lines of col. ii and ended with the short stay in Imar.)

Rev.iii	[U$_4$ 1.KAM x]-$\lceil$*ba*$^{?}\rceil$-*at-tu-*$\lceil$*um*$^{?}\rceil$	[...b]attum § 5.J.4
2	[U$_4$ 1.KAM *a-a]ḫ* $^{i\text{-}v}$<UD.>KIB.NUN.N[A^{ki}]	Riverbank of the Euphrates§ 5.J.3
	[U$_4$ 1.KAM] $\lceil$*a*$\rceil$-*ba-at-tum*	**Abattum § 5.J.2**
4	[U$_4$ 1.KAM *t*]*u-ul-tu-ul*	**Tuttul § 5.J.1**
	[U$_4$ 1.KAM *a*]-*hu-na-a*	**Ahuna § I.6**
6	[ITI$^{?}$ ŠU$^{?}$.NUMUN$^{?}$] U$_4$ 1.KAM *za-al-pa-ah*	**Zalpah § I.4**
	[U$_4$ 1.KAM *a*]*p-qum ša* ^{d}KASKAL.KUR	**Apqum-ša-Baliha § I.2**
8	[U$_4$ 1.K]AM KASKAL	**Harran § 5.I.1**
	[U]$_4$ 1.KAM *sa-ar*$^{?}$*-da*	**Sarda § 5.H.17**
10	U$_4$ 2.KAM *ha-zi-ri*	**Haziri § 5.H.16**
	U$_4$ 1.KAM *ad-mi*	**Admum § 5.H.15**
12	U$_4$ 1.KAM *hu-bu-ur-meš*	Huburmeš § 5.H.14
	U$_4$ 1.KAM *pa-al-da*	Palda § 5.H.11
14	U$_4$ 1.KAM *tu-un-da*	Tunda § 5.H.10
	U$_4$ 1.KAM *ku-ub-šum*	Kubšum § 5.H.9
16	U$_4$ 1.KAM *bá-ak-ta-nu*	Bakitanum § 5.H.8
	U$_4$ 1.KAM *mu-sà-la-nu*	Musilanu § 5.H.7
18	U$_4$ 1.KAM *bu-za-nu-um*	Buzanum § 5.H.6
	U$_4$ 1.KAM *ma-as-me-nu-um*	Masmenum§ 5.H.5
20	U$_4$ 1.KAM *a-la-an*	**Alan § 5.H.2**
	U$_4$ 10.KAM *aš-na-ak-kum*	**Ašnakkum § 5.H.1**
22	U$_4$ 1.KAM *ur-ge-eš*	**Urkiš § 5.G.4**
	U$_4$ 26.KAM *šu-na-a*	**Šuna § 5.G.3**
24	[U$_4$ 1$^{?}$].KAM *ha-ar-*ZI	Harzi / Harrusi § 5.G.2
	[U$_4$ 8].KAM *šu-bá-at-* ^{d}EN.LÍL	**Šubat-Enlil § 5.G.1**
26	U$_4$ 1.KAM *ta-ar-hu-uš*	**Tarhuš § 5.F.8**
	U$_4$ 1.KAM $\lceil$ŠÀ$\rceil$-*bi*(-)*ge-er-rum*	Libbi gerrum § 5.F.7
28	U$_4$ 1.KAM *la-a-da-a*	Lada § 5.F.6
	U$_4$ 1.KAM *ka-li-zi*	Kalizi § 5.F.5
30	U$_4$ 1.KAM *mar-ra-ta-a*	Marrata § 5.F.4
	U$_4$ 1.KAM *sà-ni-*$\lceil$*pa-a*$\rceil$	**Sanipa § 5.E.7**
32	U$_4$ 1.KAM *a-du-*$\lceil$*ú*$\rceil$	Adum § 5.E.6
	U$_4$ 1.KAM *ka-mi-il-hu*	**Kamilhu** (alias **Kalhu**) **§ 5.E.5**

(Break at the beginning of col. iv for 7 lines.)

Rev.iv	$\lceil$U$_4$ 1.KAM$\rceil$ [...]	
2’	U$_4$ 1.KAM *š*[*i-tu-ul-lum*]	***Šitullum*** § 5.D.5
	U$_4$ 1.KAM BÀD-[*šar*]-$\lceil$*ri*$\rceil$	Dur-šarrim § 5.D.3
4’	U$_4$ 1.KAM *ma-qá-la-a*	Maqala § 5.B.5

	U_4 1.KAM *al*-x-MI-NI-A	Al-... § 5.B.6
6'	U_4 2.KAM ZIMBIR/^{ki}	**Sippar § 5.B.2**
	U_4 13.KAM KÁ.DINGIR.RA$^{ki!}$	**Babilim § 5.B.1**
8'	U_4 1.KAM *ha-ap-ha-ap-pi*	Haphappi § 5.A.8
	U_4 1.KAM *ip-la-ah*	Iplah § 5.A.7
10'	U_4 1.KAM *ta-na-sa-pi*	Tanasapi § 5.A.6
	U_4 1.KAM *ra-za-ma*	Razama § 5.A.5
12'	U_4 1.KAM UD.UNU^{ki}	**Larsa § 5.A.1**
	(Uninscribed.)	
	[ŠU.NIG]IN$_2$ ITI 6 U_4 14.KAM	" Total: 6 months 14 days –
14'	[*wa*]-*ṣí a-na ta-ri-/ia*	my [depar]ture until my return."

i 1-9) For the restorations see Hallo 1964: 64a.

i 2) The toponym has been added in comparison with text B: 4 "*iš-tu* URU$^{ki!}$-*a-ḫu-um-ma*" and could be the first stage of the journey. Goetze 1953: 51 n. b interpreted the sign as NUN rather than RI. Hallo 1964: 64 suggests with reservation a reading [... *za-ra-a*]*r-ma*, and suspects that it may be the name of the port of Larsa.

i 10) The reading ˹11˺ (instead of ˹14˺) is from Hallo 1964: 64.

i 17-19) A verb in the N-stem with first radical P must be added. Two possibilities are most likely, *pahārum* or *paṭārum*. The addition of the N-stem of *pahārum* "to gather", which was already present in the text edition by A. Goetze (Goetze 1953, p. 51b and commentary p. 56), is still possible, but the most plausible seems to us to be a derivation from *paṭārum*.

A. Goetze interpreted the second verb, col. i 19 *i-li*[*-ka-nim*], p. 56b he translates this as: "while the army assembled and the boats arrived". According to this interpretation he commented *ibidem* "It becomes clear thereby that Makisum is a port and the journey continued by water."

W. W. Hallo had commented on another reading in his commentary, following a suggestion by B. Landsberger: "*i-nu-ma* ERIM.HI.A *ip-pa-*[*aṭ-ru*] *ù* GIŠ.MÁ.HI.A *i-tu-˹ru-ú˺*", "when the troops left and the ships went back." Stol 2004: 890 translates this reading differently: "als die Truppen ent[bunden] wurden und die Schiffe zurück[kehrten]", and Edzard 1976-1980: "als die Mannschaft ab[zog] und die Schiffe zurückkehrten".

i 20) Transliteration according to the autography of A. Goetze. See also Hallo 1964, p. 69b who noted "It is written *Ḫi-ša-tum* in B and probably also in A.". A. Goetze translitterated *Ḫi-ša-at*.

i 21) The parallel in text B: 11 contains *pu-lu-uk-ku-ú*. There is no space for this in text A where perhaps only one sign filled in the break.

i 24-25) Restaurations of l. 25-26 as proposed by Hallo 1964: 70. Goetze 1953: 57 has transliterated l. i 25 "[...]x-e *ud*.2.*kam*" and commented on it thus: "At the head is apparently a construct state on which *ud*.2-*kam* '(of) two days' depends. I am inclined to propose [*ú-zu-ub-b*]*é-e* and to assume that this is a technical term for 'debarkation.' The boats would have to be abandoned south of the breakthrough of the river through the mountains known as al-Fathah, as strong current and rapids would make boat travel further upstream impractical." and *ibidem* in fn. 26: "*uzubbū*, in a juridical sense, means 'divorce,' the basic meaning being ('abandonment'; cf. von Soden, Symbolae Koschaker 200."

ii 8-9) Goetze 1953: 51 had transliterated (8) *a-šar um-m*[*a-na*]*-tum* (9) *ša*$^{?}$ [...]x[...] *im-ḫu-ru* and commented on p. 59a "The added remark (ll. 8-9) 'where the troops received ...[...]' seems to indicate that, from here on, more than marching was the order of the day." Hallo 1964b does not interpret the passage further, except that he transcribes l. 9 x instead of *ša*$^{?}$. Edzard 1976-1980: 217b-218a follows W. W. Hallo and translates "wo die Truppen, welche (?) ... erhielt". Di Filippo 2016: 468 considers the restitution *ummānātum* "too uncertain". Unfortunately we cannot find a better solution for the passage. The problem is that there are few alternatives to choose from. If *ummānātum* were the only subject of the sentence, the verb should be *imḫurā*. Therefore, one can still expect at least one masculine noun, but there is not much space left. Cases of genus incongruence are exceptionnally attested, e.g. in CUSAS 29 6: (7) ˹*i-nu-ma um-ma-na-tum*˺ (8-11) it-ti PN$_1$, PN$_2$, PN$_3$, PN$_4$ (12-13) *i-na* GN (14) *wa-˹aš-bu˺*. The m. plural verb *mahārum* among others has the meaning "to meet someone".

In our text, we may need to understand: "when the troops [(VERB) and (when) (NOUN m. pl.)] met/received.

ii 16-25) Restorations after B: 32-41.

End of column ii) The 2nd column ended with the arrival in Imar. In parallel text B there are 4 lines of text, including the date. There is more space at the bottom of column ii, an estimated 6 lines and possibly space on the lower edge. Since the scribe may have deviated from parallel text B here, I have not restored the bottom lines of the column.

iii 1-6) Hallo 1964: 82a suggests that all stops were for one night U_4 1.KAM.

iii 1) Goetze 1953: 60a read "[ud.x-*kam* x-*l*]*a-at-tu-um*", and commented ibid. p. 60 that x should be a narrow cuneiform sign, like A or ZA. Hallo 1953: 82a suggested the reading *pu*$^{??}$*-r*]*a*$^{??}$*-at-tu-˹um˺*, but the river name is written ideogrammatically in the next line.

Presumably a description of the circumstances of their camping in the open field is found here. An addition to *bamtum*, *bamātum* "slope, edge (of the steppe plateau)", see *AHw* 101b § 2 is not very likely and the spelling with doubled T would be unusual.

iii 6) The translitteration follows the proposal of Hallo 1964: 82a.

iii 7) For the spelling [*a*]*p-qum ša* ^{d}KASKAL.KUR see the commentary Goetze 1953: 61.

iii 13) Palda correction has been proposed by Durand 2005, see above § 5.H.11.

The toponym was originally incorrectly read PA.MIR.UŠ. Goetze 1953: 54, 62 commented "probably *wakil redīm* (*redūtim*$^{?}$): This may simply be a military post on some stretch without permanent settlement. There are few villages and tells between Ḫarrān and Rās-al-'Ain."

iii 17) The correct reading *mu-sà-la-nu* has been suggested by Guichard 2006. Goetze 1953: 54 had formerly read *kul-za-la-nu*, for which he knew of no parallel, Hallo 1964 likewise.

iii 27) See above § 5.F.7.

iii 32) The spelling with a lengthened final vowel is found in C: 10 *a-du-ú*. It suggests that the vowel length in Old Babylonian was already due to a contraction, which also left traces in the younger Middle and New Assyrian forms "Adiu", "Adia". The evidence from Mari marks the mimation.

Text B [YBC 4499]

Text B was first published by W. W. Hallo in 1964 in handcopy and photos. Pictures are now available on the Peabody Museum website https://collections.peabody.yale.edu/search/Record/YPM-BC-018564.

Text B was written after the arrival of the travellers in Imar (§ 5.J.6). It contains the stages of the second part of the outbound journey and follows on from an unpreserved or unpublished text that contained the stages of the first 38 days of the outward journey from the starting point to Dur-Apil-Sin (§ 5.C.1).

Obv.	ZAG ITI ŠE.KIN.KU$_5$ U$_4$ 26.KAM BA.ZAL	" From month xii day 26
2	EN.NA ITI GÚ.SI.SÁ U$_4$ 4.KAM	until month ii day 4
	ŠU.NIGIN$_2$ ITI 1.KAM *ù*$^{!}$ U$_4$ 8.KAM	– a total of 1 month and 8 days –
4	*iš-tu* URU$^{ki!}$*-a-hu-um-ma*	is, what we made/spent from Al-ahumma (§ 5.A.2)
	i-na BÀD*-a-pil-*^{d}EN.ZU *ni-is-sú-hu-ú*	to Dur-Apil-Sin."
	————————————————	
6	U$_4$ 1.KAM *hi-ba-ri-tum*	Hibaritum § 5.C.2
	U$_4$ 1.KAM *kar-ka-ku-la-ti*	Kar-Kakkulatim § 5.C.3
8	U$_4$ 1.KAM *kar*-UTU	Kar-Šamaš § 5.C.4
	U$_4$ 4.KAM *ma-an-ki-sí*	**Mankisum § 5.C.5**
10	U$_4$ 1.KAM *hi-ša-tum*	Hiššatum § 5.D.1
	U$_4$ 1.KAM *pu-lu-uk-ku-ú*	Pulukku § 5.D.2
12	U$_4$ 1.KAM *ia-ha-ap-pi-i-ìl*	Yahappila § 5.D.4
	U$_4$ 1.KAM *ma-ar-ma-nu*	Marmenu § 5.D.6
14	U$_4$ 2.KAM *su-qá-qù-ú*	Suqaqu § 5.D.7
	U$_4$ 1.KAM *aš-šu-ur*	**Aššur § 5.E.1**
16	U$_4$ 1.KAM *é-kál-la-tum*	**Ekallatum § 5.E.2**
	[U$_4$ 1.K]AM *bi-na-nu-ú*	**Binanu § 5.E.3**
18	[U$_4$ 1.KAM] *sa-qa-a*	Saqa § 5.E.4
	[U$_4$ 1.KAM] *sa-ni-pa-a*	**Sanipa § 5.E.7**
L.E.20	[U$_4$ 1.KAM] *ap-qum*	**Apqum-(ša-Addu) § 5.F.1**
	[U$_4$ 1.KAM U$_4$] 20 {KAM} *ki-iš-ki-iš*	Kiškiš § 5.F.2
22	[U$_4$ 1.KAM] *ia-ap-ṭú-rum*	**Yapṭurum § 5.F.3**
Rev.	[U$_4$ 1.KAM] *ta-ar-hu-uš*	**Tarhuš § 5.F.8**
24	[U$_4$]^{r}3^{1}.KAM *šu-ba-at-*^{d}EN.LÍL.LÁ	**Šubat-Enlil § 5.G.1**
	U$_4$ 1.KAM *šu-na-a*	**Šuna § 5.G.3**
26	U$_4$ 3.KAM *aš-na-ak-ki*	**Ašnakkum § 5.H.1**
	U$_4$ 1.KAM 10 *a-la-an*	**Alan § 5.H.2**
28	U$_4$ 1.KAM *pa-na-ah-zu-ú*	Panahzu § 5.H.3
	U$_4$ 1.KAM *ma-ma-a-gi-ri*	Mammagira § 5.H.4
30	U$_4$ 1.KAM ŠÀ*-bi* KUR *a-sa-am* /	in the heart of Mount Hasam
	ù a-ba-a	and Aba § 5.H.12
	U$_4$ 1.KAM *sa-mu-e*	**Samum § 5.H.13**
32	U$_4$ 1.KAM URU ŠÀ KASKAL	Inner city **Harran** ("city heart of the road") **§ 5.I.1**
	U$_4$ 1.KAM *ap-*^{r}*qú*^{1}*-ú ša ba-li*$^{!}$*-/ha-a*	**Apqum-ša-Baliha** ("Apqum of the two Balih") **§ 5.I.2**
34	U$_4$ 1.KAM *sà-ah-la-la*	**Sahlala § 5.I.3**
	U$_4$ 1.KAM *za-al-pá-ah*	**Zalpah § 5.I.4**
36	U$_4$ 1.KAM *ṣe-er-di*	**Ṣerda § 5.I.5**

	U$_4$ 2.KAM *tu-ul-tu-ul*	**Tuttul § 5.J.1**
38	U$_4$ 1.KAM GÚ ÍD BURANUN^{ki}	Riverbank of the Euphrates § 5.J.3
	————————————————	
	U$_4$ 2.KAM *a-ba-at-tum*	**Abattum § 5.J.2**
40	U$_4$ 1 {1}.KAM GÚ ÍD BURANUN^{ki}	Riverbank of the Euphrates § 5.J.3
	U$_4$ 1.KAM GÚ ÍD BURANUN^{ki}	Riverbank of the Euphrates § 5.J.3
U.E.42	U$_4$ 2.KAM *a-ša-ar ba-ah-ra*	" 2 days at the place, where they assigned
	i-sí-hu	elite troops" § 5.J.4
44	U$_4$ 1.KAM /$_{19}$ *i-ma-ar* ŠÀ	**Imar city center § 5.J.5**
Le.E.	ŠU.NIGIN$_2$ ITI 2 U$_4$ 27.KAM	Total: 2 Months 27 days

4) Hallo 1964: 63 had transliterated *iš-tu* URU *ba-a-'u*$_x$(HU)-um-ma. Stol 1976: 40 fn. 20 suggests URU$^{ki!}$ *a-hu-um-ma*. One can compare KI$^!$ with the two signs KI in l. 21.

5) *ištu* (date) *adi* (date) ... *ištu* A *ina* B *nissuhu* is an unusual formulation and the spelling of a vowel length in *ni-is-su-hu-ú* remains unexplained. For here, with AHw 751a, the verb *nasāhum* § 15 "Wohnung usw. verlegen" or § 23 "ellipt. (Zelt?) abreißen = aufbrechen" See also *nasâhum* with the meaning "to begin (date)", cf. the indication of dates U$_4$ ...KAM BA.ZAL.MA

21) The place name is unknown. The reading DI-*iš*-DI-*iš* cannot be completely ruled out, but there is no parallel for this either. The author has entered "20", the subtotal of the days travelled, in smaller type. W. W. Hallo 1964: 63 read [(...) U$_4$] ⌜20.KAM⌝. It is not sure that the cuneiform sign KAM is really to be read in the remains, or possibly that it has been deleted. In lines 27 and 44, no KAM follows the subtotal.

27) In lines 21 and 44, the subtotal is noted in smaller letters.

37) The scribe has not been able to mark his note "10" here in small script because the stay extends over the 10-11th day after the last entry. He retrieves the information from l. 44 "19".

38) The ruling after line 38 could represent a mnemonic marking the duration of the two months since the date of departure.

42) See § 5.J.5. See Hallo 1964: 80-81 who based on an uncertain interpretation of *i*-ZI-*hu* supposedly being derived from *neṣûm* "repair" and a possibly wrong interpretation of BA.AH.RA as "chariot" he proposed to translate approximately "where the chariot had to be repaired". Unfortunately this proposal can't be maintained for philological reasons.

Alternative explanations were from Stol 1976: 40 fn. 20 "We now know of a PN *Ba-aḫ-ra*, the name of a Subaraean (VAS 18 3: 12). Could *a-ša-ar Ba-aḫ-ra i-sí-ḫu* mean 'where Baḫra revolts'? In that case, however, a permansive form would be much better." Stol soon after changed his mind (see above § 5.J.5)

Durand 1990: 89 n. 267 suggested "peut-être faut il comprendre *ma-ah-ra i*-ZI-*hu-ú* et y voir la même notation que pour la ville de Zalpah *ša ma-hi-ri-im* & Zalpah *ša ma-hi-re-tim*, d'après XXIII [CF. UF 18, p. 397]." This proposal is excluded, because the spelling of the sign MA (cf. above ex. gr. l. 29) is completely different. The reading *ba-ah-ra* seems certain. See above § 5.J.5.

Recently, J.-M. Durand proposed a completely different solution, which we do not follow here either (Durand 2023: 89 fn. 5).

44) Suggestion to read KI instead of ŠÀ by Durand 1990: 89 n. 263 "*i-ma-ar*^{ki}". We have not followed this proposal, as the determinative KI is very rare in this text and the sign does not seem to be one.

45) Note that the text of the left edge is written upside down, contrary to the general custom.

Text C [UIOM 2370]

Text C has been published only as handcopy by A. Goetze. Photos are now available on the CDLI website under heading P420750.

Text C documents a small part of the return journey recorded in Text A: iii 23-32. During the unusually long 26 days stay in Šuna (§ 5.G.3), the scribe of the text had enough time to write an unpreserved document about the stages from Imar (§ 5.J.6) to Šuna (§ 5.G.3). Text C documents the route from Šuna on the Wadi Djaghdjagh until the Adum stage (§ 5.E.6) on the Tigris.

Obv.	U$_4$ 26.KAM *šu-na-a*	**Šuna § 5.G.3**
2	U$_4$ 1.KAM *ha-ar-ru-si*	Harzi / Harrusi § 5.G.2
	U$_4$ 8.KAM *šu-ba-at-*^{d}EN.LÍL	**Šubat-Enlil § 5.G.1**
4	U$_4$ 1.KAM *ta-ar-hu-uš*	**Tarhuš § 5.F.8**
	U$_4$ 1.KAM ŠÀ$^!$-*bi*-KIB°-*na*	Libbi gerrum$^?$ § 5.F.7
6	U$_4$ 1.KAM *la-a-da-a*	Lada § 5.F.6
Rev.	U$_4$ 1.KAM *ka-*⌜*li*⌝*-zi-*⌜*it*⌝	Kalizit § 5.F.5

8	U_4 1.KAM *ma-ar-a-ta*	Marrata § 5.F.4
	U_4 1.KAM *sà-ni-pá-a*	**Sanipa § 5.E.7**
10	U_4 1.KAM *a-du-ú*	Adu E.6

1) Šuna has been written over an erasure.
2) The spelling of the toponym with SI is unusual, Text A: iii 24 contains the spelling *ha-ar*-ZI. An identification of the toponym with Hurașa(n) of the Tell Leilan and Mari archives is probable, see the spellings in Ziegler & Langlois 2016: 149-150.
5) For this difficult entry see the commentary above § 5.F.7.
9) On the various spellings of the toponym, see above fn. 160.

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Ekallatum, Šamši-Adad's capital city, localised

Nele Ziegler* & Adelheid Otto**

The historical geography of Mesopotamia has been the subject of intensive research in recent decades. Nevertheless, there are even capitals that still cannot be located—a problem that naturally also makes it difficult to locate smaller places connected to them. For example, the political capital of one of the most important kings of the 2nd millennium BC—we mean Samsi-Addu, alias Šamši-Adad I—has still not been identified beyond doubt. Although the rough localisation in the surroundings of Aššur seems generally accepted, previous proposals of identification remained unsatisfactory. In fact, due to the combination of philological and archaeological evidence, there is only one possible identification, which we would like to present here.[1]

As shown in the Old Babylonian itineraries[2], Ekallatum was a day's journey from Aššur. William Hallo had suggested identifying Ekallatum with modern Tell Haikal a few km north of Aššur and east of the Tigris (§ 2.3.1). The geographical proximity and especially the alleged name continuity (Ekallātum → Haikal) made this hypothesis plausible. Surface finds, however, did not confirm an occupation of the site in the Middle Bronze Age, and the Mari archives also made a location east of the Tigris less likely. Even sporadic surveys and, more recently, remote sensing did not reveal any new candidates to be identified with Ekallatum.

The present contribution grew over a longer period of time on the basis of the dialogue between Nele Ziegler, philologist, and Adelheid Otto, archaeologist. Initially, however, the archaeological statement was based more on probability than on certainty. It was not until January 2022 that new archaeological evidence emerged supporting our identification of Ekallatum proposed here. We thank our colleagues Salim Abdallah Ali (SBAH Salahaddin, Iraq) and Nicolò Marchetti (University of Bologna) for informing us about relevant new evidence and findings corroborating this identification.

1. The political role of the city of Ekallatum in the empire of Šamši-Adad and in the following period

Ekallatum was one of the main cities of the kingdom of Šamši-Adad (1802-1776 BC), the most important king of Upper Mesopotamia in the first half of the 2nd millennium BC. Strictly speaking, Ekallatum was the political capital.[3]

The etymology of the city name *ekallātum* "palaces" makes the toponym a "speaking place name"[4] that describes the peculiarity of the city. It housed the palaces

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1 Our sincere thanks go to numerous colleagues and friends who discussed with us the challenging questions concerning the localisation of Ekallatum, and to Berthold Einwag, who prepared most of the illustrations for this article. D. Charpin read a final draft of this article. We presented this identification in July 2022 at the 66th RAI in Mainz and announced it in a brief note (Ziegler & Otto 2022).

2 See Ziegler, Otto & Fink 2023 in this volume.

3 For more details on Ekallatum, its history in the Old Babylonian period, its role as capital, and on the complementary pair Aššur – Ekallatum, see Ziegler 2002. On the reign of Šamši-Adad alias Samsi-Addu, see Charpin & Ziegler 2003: 75-168 and more briefly Charpin 2004a: 153-193. In the following we note the name of the king Šamši-Adad, even if it was read Samsi-Addu in the Old Babylonian period, see Ziegler 2006-2008: 632.

4 On this phenomenon in Upper Mesopotamia of the 2nd millennium BC, see the two complementary studies Ziegler & Cancik-Kirschbaum 2017 (on Ekallatum see *ibid*.: 329-330), and Cancik-Kirschbaum & Ziegler 2018.

of Šamši-Adad, but also those of his sons Išme-Dagan and Yasmah-Addu, as well as the residences of the high dignitaries and first ladies of his empire, as repeatedly attested by written sources, especially from Mari[5] and Ašnakkum[6] (Chagar Bazar). The peculiar name and the correspondence between etymology and function in the Upper Mesopotamian Empire suggest that the city was named by the ruler Šamši-Adad. He was not stingy in giving new and sometimes unusual city names: Šubat-Enlil "residence of Enlil" is the name he gave to his conquest of Šehna (Tall Leilan), Šubat-Šamaš "residence of the sun god" to the city of Hanzat in the Balih region.[7] For both toponyms we do not know any parallel so far.[8] Ekallatum itself is such a toponym for which there is no real comparison before Šamši-Adad.[9]

We therefore consider it plausible that Šamši-Adad gave the city of Ekallatum its name. It is not clear from the Old Babylonian texts whether Ekallatum was a new foundation or whether the ruler renamed an already existing place, as he did with Šehna (Tell Leilan). The latter seems more likely. In the Assyrian king lists (see below § 2.1) a conquest of Ekallatum by Šamši-Adad is mentioned. This is the clearest and so far the only indication that Ekallatum was not a new foundation of Šamši-Adad, but based on a predecessor settlement.[10]

Old Assyrian sources never mention the toponym Ekallatum, to our knowledge not even texts of the kārum Ib phase. It is likely that it was so close to Aššur that a mention under the travel expenses in Kaneš was not necessary. As far as we can see, the closest places to Aššur mentioned in the documents found in Kaneš were Sadduwatum (perhaps Tall Saadiya Sharqi)[11] about 45 km and Qaṭṭara (Tell Rimah) about 115 km northwest of Aššur.[12] Ekallatum, on the other hand, must be sought much closer to Aššur, logically less than a day's journey away.

Ekallatum was Šamši-Adad's political capital, even though he himself spent more time in Šubat-Enlil, more centrally located in his empire, in the last years of his life, and even though he had entrusted Išme-Dagan with the administration of the eastern regions of his empire. Daduša of Ešnunna called his ally Šamši-Adad the "King of Ekallātum".[13] In his own inscriptions, Šamši-Adad was less affirmative. His various seals do not mention any city or country name, but only the gods Enlil and Aššur and the name of his father Ila-kabkabu.[14] Only in one text, which was written for a possible inscription on a twin vessel in the Dagan temple, does Šamši-Adad bear, among other things, the title "King of Ekallatum". There, however, he calls himself also "Prince of [Mar]i" and "Governor of Šubat-Enlil" but above all he was described as the "unifier of the land between the Tigris and the Euphrates":[15]

> "[Šam]ši-Adad, strong king, appointee of the god [Enlil], vice-regent of the god Aššur, beloved of the god Dagan, *unifyer* of the land between the Tigris and Euphrates, prince of [Mar]i, king of Ekallatum, gouvernor of Š[ubat-En]lil (...)"

The empire of Šamši-Adad consisted of various central places, but the political capital was and remained Ekallatum. Aššur, on the other hand, seems to have been a religious and economically immensely important centre of

5 Villard 2001: 101-106 on the domain of Ekallatum. Ziegler 2002: 216-217. Guichard & Ziegler 2004: 240-241.

6 Lacambre & Millet Albà 2008: 216-218.

7 The identification of Šubat-Šamaš with Hanzat is based on a suggestion by Ilya Arkhipov (2014). For this and for the possible identification of Šubat-Šamaš with Bandar Khan in northern Syria see Ziegler & Langlois 2016: 346 and Fink 2016: 72.

8 Cancik-Kirschbaum & Ziegler 2018: 89-90.

9 Yakaltum, the West Semitic name of Tell Munbaqa (Wu 1992), was, however, occasionally called Ekallātum, especially in the time of Šamši-Adad: several contributions on this, especially by D. Charpin and P. Villard, are enumerated in Ziegler & Langlois 2016: 95-96. In the 2nd half of the 2nd millennium BC, the toponym became Ekalte. The plural ending *-ātu*(*m*) got lost for this place, while Ekallatum (*ekallātum*) remained Ekallate (*ekallāte*).

10 Ziegler 2002: 212 quotes and comments on an extract of the fragmentary Mari text M.10754, which mentions a domain of Ekallatum, the administrator Mubalsaga and "the days of Ilima-rahe". Charpin & Durand 1997: 372 n. 36 and Durand 1998: 107-108 had suggested that Ilima-rahe might be an earlier ruler of the city of Ekallatum. There is currently no further information supporting this hypothesis.

11 This identification goes back to D. Oates, see bibliography in Ziegler & Langlois 2016: 291-292.

12 If Razama ša Uhakim is identical with the Old Babylonian Razama ša Yamutbal (perhaps Tell Abta), it was distant about 130 km as the crow flies from Aššur.

13 Daduša stela: (col. x 9) *sa-am-se-e-*^{d}IŠKUR (10) LUGAL *é-kál-la-tim*^{ki}. See already the comment by Charpin & Durand 1997: 371.

14 A list of the epithets and elements of the titulary of Šamši-Adad can be found in Charpin 1984: 52. The further textual evidence published since then does not change the picture. For the seals of Šamši-Adad and his functionaries cut in the northern Mesopotamian court style of Ekallatum, see Otto 2000: 151-153, Taf. 35, seal groups 6b and 6c. For the seal of Šamši-Adad, see lastly Patrier 2015.

15 The text RIMA 1 0.39.7 has been first published and commented on by D. Charpin 1984: 47-49, 75. The reedition by Grayson 1987: 59 is less complete but the addition of the city name Šubat-Enlil is secured. The text has been found in the palace of Mari, and is perhaps only a suggestion for what was to be inscribed on the vessel. It is not known whether this was done, or whether another, different inscription eventually adorned the vessel. On these models for royal inscriptions and the necessity to use them with caution in historiographical discourse, see Charpin 1997, Charpin 2004a: 149 and Charpin 2006: 153-154.

the empire,[16] the city whose eponym system was adopted as the dating system for the entire empire[17]. Šubat-Enlil, on the other hand, was Šamši-Adad's residential town and administrative centre in the "heart of the country"[18]. N. Ziegler described the special status of Ekallatum thus:[19]

> "Le choix d'Ekallâtum, 'les Palais', comme capitale affirmait la royauté de Samsî-Addu et de ses successeurs : si Aššur continuait d'appartenir à son dieu, Samsî-Addu n'y exerçant que la fonction de gouverneur (*iššiakkum*), Ekallâtum lui permit de s'affirmer pleinement en roi. Aššur était peut-être la première ville du royaume de Haute-Mésopotamie, mais le centre du pouvoir semble avoir été Ekallâtum. Ceci se reflète notamment dans les archives de Šušarrâ, où Aššur ne figure pas, tandis qu'Ekallâtum est mentionnée dans trois lettres."

An anonymous letter found in Hazor also mentions Ekallatum and emphasises the importance of the city. In it the sender, whose name has not been preserved, writes:[20]

> "Once my hand has taken Mari, I intend to go to the interior of Ekallatum to perform sacrifices and celebrations."

Ekallatum (and not Aššur) was therefore the place where the victory over Mari was planned to be celebrated. The author's name is broken off, but the letter can probably be attributed to Šamši-Adad.[21]

The role as Šamši-Adad's capital had taken root in the minds of contemporaries and outlasted his death. The term "Ekallateans" was used after the fall of his empire to describe the followers and supporters of his government, no matter where they were born and where they were stranded after the collapse of the great North Mesopotamian empire of Šamši-Adad.[22]

His elder son Išme-Dagan[23] was the new ruler of the truncated part of the Empire, which henceforth bore the name *māt Ekallātim*[24] and consisted mainly of the Tigris region between Tikrit and Qayyara and the surrounding area.[25] He was the hapless successor of his father. Several times he had to leave Ekallatum, went into exile in Babylon, while his administrators tried to hold the fortified cities.[26] Then again, he was able to reconquer his territory and launch attacks on neighbouring territories. From today's perspective, one does not see a success story in the succession of his father, yet another ruler of Aššur, the son of Šamši-Adad II, later bore his name.

Išme-Dagan (I) survived mainly thanks to the constant support of Hammurabi of Babylon, even though he once made the mistake of allying himself with Ešnunna's ruler Ṣilli-Sin, thereby angering his patron.[27] So far, not a single royal inscription attributable to Išme-Dagan has been known. At the beginning of Išme-Dagan's reign an interesting letter from Kaneš[28] was written by the Assyrian merchants to king Hurmeli of Harsamna which testifies to the adverse circumstances under which the traders had to suffer. A little later, however, commerce seems to have flourished again[29]. With the extinction of the Mari archives, the sources on Išme-Dagan come to an end.

The chronological position of Išme-Dagan's reign remains open. The Assyrian king list assigns him 40 years.[30] His reign spanned the entire duration of Zimri-Lim's rule of Mari, i.e. the years 1775-1762 BC, but it is difficult to imagine that the ageing, foot-lame and tired Išme-Dagan described by the authors of the Mari letters could have ruled for several decades after Zimri-Lim's demise[31]. The only plausible explanation for this high number is to add the years before the death of Šamši-Adad I, during which Ekallatum and Aššur were directly subordinate to King Išme-Dagan, who ruled under the suzerainty of the "Great King" Šamši-Adad[32]. However, according to genuine Assyrian understanding, Išme-Dagan ascended the throne

16 Charpin 2004b: 379-381. The letter A.3609 quoted there has been published by Durand 2005: 17-20 as FM 8 1, and studied again by Ziegler 2019.

On other more or less bicephalous kingdoms in Upper Mesopotamia of the Old Babylonian period, cf. Charpin & Durand 1997: 373 fn. 44. They compare the situation inter alia with the centres of Mari & Terqa—the political and the religious centre on the Middle Euphrates.

17 Ziegler 2021.

18 Ziegler 2014.

19 Ziegler 2002: 213.

20 The letter Hazor 16803 has been published by N. Wasserman & W. Horowitz, bibliography and translitteration can be found in www.archibab.fr/T17326. The quotation is Hazor 16803: (22') *tu:iš* ^{uru}*má-rí*^{ki} *qa-ti ik-ta-aš-du* (23') *pa-nu-ia a-na li-ib-bi* É.GAL.HI.A (24') *a-na ni-qé-tim ù i-si-na-tim* (25') *e-pé-ši-im ša-ak-nu*. The interpretation differs from the editio princeps. See Ziegler & Charpin 2004.

21 Ziegler & Charpin 2004.

22 Guichard & Ziegler 2004.

23 Cf. Charpin & Ziegler 2003, for Išme-Dagan see index p. 283. Cf. Veenhof 2008: 25-26, 141-142.

24 Ziegler 2002: 220. See map below Fig. 1.

25 The extent of this trunk kingdom has been studied by Ziegler 2002: 220-222, 229-247; map *ibid*.: 238 (reproduced below Fig. 1).

26 Charpin & Durand 1997: 372 fn. 43.

27 Briefly Charpin & Ziegler 2003: 254-257.

28 Günbatti 2014: 87-100.

29 Ziegler 2002: 237-238 with further literature; Veenhof 2008: 26-27; Eidem 2008; Guichard 2008.

30 Grayson 1980-1983: 106, for this document see below § 2.1.

31 Doubts about the 40-year reign are also expressed by Veenhof 2008: 30 – he suspects that Išme-Dagan's reign ended with the events mentioned in Hammurabi's 33 year name. See literature *ibid*.

32 Charpin 2004a: 327.

only in 1775 BC after the death of his father, as the merchants of Aššur wrote to king Hurmeli of Harsamna:[33]

> "It was just before your tablet arrived here, that the ruler Šamši-Adad, our lord, had gone to his fate and until Išme-Dagan, his son, took his seat on the throne of his father, (...)"

Rare variants of Hammurabi's 33rd year name mention Ekallatum.[34] Were Hammurabi's troops able to conquer the city in 1761 BC, and if so, did they necessarily put an end to the rule of the long-time ally Išme-Dagan? K. Veenhof suspects that.[35]

In Mari texts from the later phase of Zimri-Lim's reign, Išme-Dagan's son Mut-Asqur[36]is already mentioned, who actively intervened in events. He was Išme-Dagan's successor, although his name is only mentioned as ruler in KAV 14.[37] Mut-Asqur's successor Rimuš is also known only from this text.[38] This, and the absence of Mut-Asqurs' and Rimuš's names in the regular version of the AKL, which seems to attest to a period of anarchy, may suggest that the fortunes of the commercial metropolis of Aššur and the former capital Ekallatum had temporarily split.

In the archives from Tell Leilan, which end two decades later than the Mari archives and are largely contemporaneous with Samsu-iluna of Babylon, Ekallatum is never mentioned, while merchants from Aššur were able to conclude a treaty in their own name with Till-Abnu of Apum to ensure their safety.[39]

The separation of Ekallatum's and Aššur's fortunes glimpsed here did not last. What happened in the following three or four centuries remains obscure. In the Middle Assyrian and Neo-Assyrian periods, Ekallatum remained inhabited and retained its name, which indicates stability. Ekallatum was located on the King's Road (§ 2.2.1) and was a provincial city of the Middle and Neo-Assyrian empires, housing a temple of the Weather God. It was once the victim of a campaign by the Babylonian king Marduknadin-ahhe (§ 2.2.2).

2. Milestones in the search for the localisation of Ekallatum

Ekallatum has been known from written sources of the 2nd and 1st millennia BC. It had already been obvious since the publication of the Assyrian King List that Ekallatum was Šamši-Adad's capital (§ 1) and considerations of its location took their course (§ 2.1-2.2), the supporting documentation being exclusively Neo-Assyrian. In the 1960s, a significant new clue was added by the publication of a copy of the Old Babylonian "Road to Emar" texts (§ 2.3.1). Since then, the Mari archives in particular have provided new arguments for localisation (§ 2.3.2-2.3.5). In the following, we present the most important sources that were used in the discussion about its localisation.

2.1 The Assyrian Kinglist (AKL)

In the manuscripts of the Assyrian King List there is a lengthy, unusual entry concerning the reign of Šamši-Adad:[40]

> "[Šam]ši-Adad, son of Ila-kabkabu, went [to Karduni]aš [dur]ing the time of Naram-Sin. In the eponym-year of Ibni-Adad, [Šamši]-Adad [came up] from Karduniaš and captured Ekallatu. For 3 years he resided in Ekallatu. In the eponymy-year of Atamar-Ištar Šamši-Adad came up from Ekallatu, removed Erišu (II), son of Naram-Sin from the throne, and took the throne. He reigned for 33 years."

In the entry on which numerous authors have commented,[41] much of the information is questionable. In recent years, research has concentrated on the identification of the two eponyms mentioned, which do not appear in the Old Assyrian eponym lists, although these texts are

33 Günbatti 2014: 87-100 letter kt 01/k 217 l. 12-16.

34 Two exceptional variations of the name of Hammurabi's year 33 mention Ekallatum. The most complete reference is in text Riftin SVJAD 69: 38-45 which contains the dating (38) MU *ha-am-mu-ra-bi* LUGAL (39) MA.DA KUR ˹SU˺.BIR$_x$˹ki˺ (40) *é-kál-la-tum*^{ki} (41) *bu-ru-un-da*^{ki} (42) *ù* MA.DA *za-*˹*al*˺*-ma*˹*-qú*^{ki} (43) GÚ˹ I$_7$ IDIGNA (44) EN.NA I$_7$ [UD].KIB.NUN^{ki} (45) KI.ŠÈ MI.NI.GAR "Year when Hammurabi the king subjugated the land of Šubartum, Ekallatum, Burundum and the land of Zalmaqum, from the riverside of the Tigris up to the Euphrates." The bibliography has been summarised and commented on by Stol 1976: 33-39 who identified this variant year name most probably with Hammurabi 33. A commentary of the historical events may be found in Charpin 2004a: 327-328. See Horsnell 1999: 148-149 and also the Archibab website for all the texts dated by Hammurabi 33 https://www.archibab.fr/N62 (accessed 21/08/2023).

35 Veenhof 2008: 30.

36 Arguments for a reading of the name Mut-Asqur, instead of Mut-Aškur, see Durand 1998: 264.

37 Cf. Brinkman 1993-1997.

38 The name is fragmentary in KAV 14, but its restoration seems assured. See Radner 2006-2008.

39 Eidem 1991, re-edited in Eidem 2011: 417-426. Veenhof 2014 has devoted an extensive commentary to this text.

40 Grayson 1980-1983 : 105-106.

41 We limit ourselves to Yamada 1994, Pongratz-Leisten 1997 and Valk 2019 with preceding literature.

well preserved for the period expected for the conquest.[42] The designation "Land of Karduniaš" is also an anachronism for the time of Šamši-Adad.[43] It is probable that it refered to the kingdom of Ešnunna in this text, for a stay of Šamši-Adad in the kingdom of Babylon is unlikely. But which Naram-Sin stood at the beginning of the tradition of a stay of Šamši-Adad in this land? Was it actually the ruler Naram-Sin of Aššur, or not rather his contemporary from Ešnunna?[44] Only the deposition of Erišum and Šamši-Adad's reign of 33 years are considered certain, since the reigns of Šamši-Adad's predecessors are now known thanks to the Old Assyrian eponym lists from Kaniš.[45]

The "ascent" of Šamši-Adad from Ekallatum to Aššur[46] mentioned in the AKL, which led to the deposition of Erišum from the throne in Aššur, initially led to the assumption that Ekallatum was to be sought downstream from Aššur. Emil Forrer suggested Tell ed-Dahab east of the Tigris (see below § 3.3), but this hypothesis was soon rejected. However, here Akkadian *elû*(*m*) is to be understood as ascension or climbing the career ladder.

2.2 Ekallatum – an important provincial city in the Assyrian Empire

In the Assyrian empire, Ekallatum became part of the province of the Inner City (*libbi āli*). The most recent state of research and the documentary evidence have been collected and can be consulted—as far as the texts of the Middle Assyrian period are concerned—in MTT II/2.[47] For the Neo-Assyrian documentation, the RGTC volume is now available.[48] The texts bear witness to an important city which, although it was plundered during a campaign by the Babylonian king Marduk-nadin-ahhe, remained inhabited at least until the end of the Assyrian Empire.

2.2.1 The Neo-Assyrian Ekallate on the King's Road

The Neo-Assyrian Ekallate lay on the King's Road (KASKAL LUGAL)[49], as can be seen from a land grant deed of the time of Adad-nerari III, first published in 1920 as KAV 94. In it, the boundaries of a terrain of "1000 'hectares'" are specified. The cadaster ends with the following remark:[50]

> "(*Land in the province of the Inner City*) adjoining the king's road that goes from Ekallat[e to *Bit-ṣuṣani*[51]]; adjoining the road that goes from Bit-ṣuṣani[52] to Samanu."[53]

Franz Heinrich Weißbach already concluded on the basis of the mention of the King's Road that Ekallatum had to be directly connected to Aššur and should therefore not be searched for on the east bank of the Tigris. He accordingly rejected E. Forrer's suggestion, who had shortly before assumed Ekallatum to be in Tell ed-Dahab (§ 2.1 and 3.3), but he searched for Ekallatum south of Aššur:[54]

> "Ganz allein auf assyrischer Seite war das Kriegsglück jedoch nicht, wie es nach den einseitigen Berichten des Assyrer-Königs scheinen könnte. Vielmehr hat Marduknâdinaḫê in seinem zehnten Jahr einen Sieg über Tiglatpileser I. davongetragen, wie er in einer Lehensurkunde erwähnt (King BBSt S. 42ff. I, Z.4f.[55]). Hierbei hat er die Götter Adad und Šala der Stadt Ekallâti weggeführt (Sanherib, Bawian-Inschrift Z. 48-50), also das Gebiet dieser Stadt seinem Reiche einverleibt. Ekallâti war später ein Bezirk der Statthalterschaft Aššur und hat südlich von Aššur am Tigris gelegen (Forrer *Provinzeint*. S. 11-12). Da sie aber an der Königsstraße lag (KAV I Nr. 94, Vs. Z. 9; über ihre Entfernung von Aššur ergibt sich gegen Unger im Art. Aššur § 6 nichts aus diesem Text), kann sie wohl nicht dem auf dem linken Ufer gelegenen Tell Dhaheb entsprechen, sondern muß auf dem rechten Ufer des Tigris angesetzt werden. (...)"

42 Bloch 2014 is the most comprehensive.

43 Brinkman 1976-1980.

44 This was already assumed by Charpin 1985: 57-61, see also Charpin 2004a: 150. See likewise Veenhof 2003: 45, 61.

45 Veenhof 2003: 39, 57-62. Let us recall, however, that the duration of Išme-Dagan's rule is problematic, see above § 1.

46 Grayson 1980-1983: 105 (AKL C) TA ^{uru}É.GAL.MEŠ *e-la-a*.

47 Cancik-Kirschbaum & Hess 2022: 157.

48 Bagg 2017: 166-167. See also Müller-Kessler 2009 who edits and comments an interesting document in Aramaic from Aššur dated to 659 BC. This debt note mentions Sarru-na'id son of Raši-ilu governor-*ḫazannu* of Ekallatu (VA 7498, Archiv 18 : (1) šrn'd b[r] (2) rsl . ḥzn . 'glh).

49 For the Assyrian King's roads, cf. Kessler 1997.

50 SAA 12 No. 1: 9 describes a land donation and gives this road as one of the terrain's neighbours. The area's surface is spelled *ibid*. l. 5: É 1 *li-im* A.ŠÀ.

51 If the toponym in the break was the unlocated Bit-Ṣuṣani (see below), from which a branch led towards Samanu, the boundaries of the terrain followed this road bend.

52 Bagg 2017: 119 (unique attestation).

53 Samanu is not yet localised; Bagg 2017: 521 assumes it in the region of Šibaniba = Tell Billa.

54 Weissbach 1932: 284b-285a.

55 This text has been re-edited by Paulus 2014: 543-553 (MNA 3).

2.2.2 The temple of Adad and Šala in the urban area of Ekallatum

In the so-called "Bavian Inscription", Sennacherib reports on the plundering of Babylon. However, the ruler also mentions that originally Assyrian deities could be returned to their temples, such as cult statues that had been taken away from Marduk-nadin-ahhe to Babylon in 1107 BC. Sennacherib writes:[56]

> "The god Adad (and) the goddess Šala, gods of the city Ekallātum whom Marduk-nādin-aḫḫē, king of Akkad, had taken and brought to Babylon during the reign of Tiglath-pileser (I), king of Assyria — I had (them) brought out of Babylon after 418 years and I returned them to the city E[kallātum], their (proper) place."

The fact that the return by Sennacherib of the statues looted in the late 12th century is worth mentioning suggests that Adad was the main god of the city.[57] The weather god and his consort Šala were particularly popular in northern Mesopotamia, where rain and dew were essential for society and economy, at least from the third millennium onwards, and where this divine couple was most frequently depicted in cylinder seals and other imagery from the Akkadian period onwards.[58] The theft of the cult statues in 1107, their retrieval by Sennacherib in 689 and their reinstallation in Ekallate shows that the city's temple must have existed as late as the 7th century and was still of supra-regional importance.

Possibly, we have confirmation of this hypothesis. D. Charpin & J.-M. Durand suggested that a late Old Assyrian legal document, APM 9220[59] might argue for identifying the weather god with the chief god of the political capital. The contract, written in the eponymate of an "Išme-Dagan, son of Šamši-Adad", mentions an oath sworn to "Aššur, Adad and the king Šamši-Adad". K. Veenhof had originally dated the text to the reign of Šamši-Adad I.[60] Accordingly, D. Charpin & J.-M. Durand commented:[61]

> "Le fait qu'Ekallatum soit la capitale de Samsî-Addu permet d'expliquer au mieux le serment qu'on trouve dans le texte APM 9220, qui est juré par les dieux Aššur et Adad et le roi Samsî-Addu. K. R. Veenhof avait déjà souligné les traits babyloniens de ce serment: le fait même que le contrat en comporte un et l'emploi de mu au lieu de *nīš*. On peut aller plus loin et remarquer la structure babylonienne de ce serment : le nom du dieu de la ville où le contrat est rédigé (Aššur) est suivi par celui du dieu de la capitale (Adad, dieu d'Ekallâtum) et celui du roi, de la même façon qu'on a, par exemple, à Dilbat des serments par Uraš, Marduk et le roi".

The eponym mentioned in this text, however, can no longer be identified with a year of the reign of Šamši-Adad I, but is said to go back to Išme-Dagan II, son of Šamši-Adad II.[62] If the oath attested in APM 9220 invokes Adad, the city god of Ekallatum, this would mean that Ekallatum still formed the political centre of the polity to which Aššur belonged at this time. This hypothesis must be investigated on the basis of future evidence.

2.3 Old Babylonian textual sources for the localisation of Ekallatum

Old Babylonian documentation provides decisive clues as to the location of the city. N. Ziegler has devoted a detailed study to the geopolitical situation.[63] In the following we summarise the most important arguments for the localisation of the city.

2.3.1 The "Old Babylonian Itineraries"

In 1964, W. W. Hallo published YBC 4499, one of three texts which recorded in writing the stages of the outward and return journey of a group of travellers from Larsa to Imar and which are generally referred to as "Old Babylonian Itineraries" or the "Road to Emar".[64] Albrecht Goetze had already published one of these documents in which the passage concerning Ekallatum was broken.[65] The document edited a decade later by W. W. Hallo contained the route before and after Aššur with all stages, of which,

56 See on this text and the translation RINAP 3/2 no. 223: l. 48-50 (Grayson & Novotny 2014: 316).

57 On the worship of the weather god by Šamši-Adad, see Schwemer 2001: 264-282.

58 Schwemer 2001; Dietz & Otto 2016-2018; Schwemer 2006–2008; Otto 2006-2008; Dietz 2023.

59 Veenhof 1982.

60 This cannot be confirmed by the now known series of eponyms.

61 Charpin & Durand 1997: 372 following Charpin 1987.

62 Barjamovic, Hertel & Larsen 2012: 23 "The latter may be regarded as the great-grandson of Šamšī-Adad I." and *ibidem* fn. 63: "Veenhof 1982: 359 w. n. 2 argued that this eponym belongs to the period of Šamšī-Adad I (cf. the royal pair Šamšī-Adad I – Išme-Dagan I in AKL 39-40). He later revised his conclusion (personal communication), and now considers the eponym to be post-canonical (cf. the later royal pair Šamšī-Adad II – Išme-Dagan II in AKL 57-58).

63 Ziegler 2002.

64 See in this volume Ziegler, Otto & Fink 2023. We there use the abreviation RTE.

65 Goetze 1953.

however, only two toponyms could be reliably identified with archaeological sites:

Sugagu → Aššur (= Qal'at Šerqat) → Ekallatum → Binanu → Saqa → Sanipa → Apqum ša Addu (= Abu Marya)

Ekallatum was mentioned as the first stage on the way from Aššur to Apqum (Tell Abu Marya). There are 130 km between the two as the crow flies. The stages were therefore on average 26 km apart as the crow flies, i.e. slightly more on the ground. It was now clear that Ekallatum had to be sought one stage upstream from Aššur, contrary to earlier assumptions. W. W. Hallo wrote:[66]

"The first station after Aššur reveals one of the outstanding surprises of the new Itinerary. For here, one day's march beyond Qal'at Sherqat, we find none other than the famous Assyrian city of Ekallatum, written É.GAL-latum, which virtually all commentators have long placed south of Aššur, most maps of ancient Assyria have even dispensed with the customary questionmark in localizing it. The old localization of Ekallatum cannot, however be maintained. A new assessment of Babylonian strength vis-a-vis Assyria at a number of periods in their history, and of the significance, in particular, of Tiglathpileser I's loss of the city to Marduk-nadin-ahhe about 1100 B.C. will now be called for. Here there is room only to consider the actual identification of the site. And we find that, exactly 25 km north of Qal'at Sherqat, most maps of the area note a place variously spelled Hākal, Haichal or Hekat, with the further suggestive description 'ancient ruins.' The site is on the left bank of the Tigris, but since there is a ford in the river at this point it could presumably have been easily reached from Assur in a day's march if, indeed, the travellers did not simply encamp opposite it. Thus, although there are several other sites in the same general area that today go by the name of Haikal, it seems probable that the ancient ruins at Haikal on the left bank of the Tigris mark the site of ancient Ekallatum."

Ekallatum was identified by W. W. Hallo with Tell Haikal—a supposedly ideal day stage.[67] The ancient name would have persisted over the millennia (see § 5.2) and it alone is the argument for the identification. For the fact that the travellers had to cross the river twice with this identification seemed unusual even to W. W. Hallo. It seemed permissible to him, however, since Tell Haikal was situated at a ford—and so W. W. Hallo suggested that perhaps the travellers camped opposite Haikal on the river.[68]

W. W. Hallo's suggestion seemed plausible and his equation Ekallatum = Tell Haikal has been followed for many decades in ancient Near Eastern studies.

2.3.2 An apparent confirmation of the eastward location of Ekallatum: TH 72.2

M. Birot published an excerpt from a Mari letter in 1973 (TH 72.2)[69] which, in his opinion, could confirm the localisation of Ekallatum east of the Tigris near a ford. The author of the letter explained that he had not been able to maintain contact with Išme-Dagan because of the turmoil of war, and suggested to the addressee that he should no longer send his messengers to Išme-Dagan via himself but via another route at night. Birot summed up the data situation as follows:[70]

"L'expéditeur semble être le gouverneur d'un district situé à proximité de Nurrugum (à l'Ouest du Tigre), ville qu'il se fait fort de prendre à condition de recevoir des renforts. Il informe en même temps son maître (on ne peut décider s'il s'agit de Samsi-Addu ou de Iasmaḫ-Addu) qu'il ne peut plus communiquer avec Išme-Dagan. C'est pourquoi, explique-t-il, les messagers qui portent le courrier royal destiné à celui-ci 'ne doivent plus passer chez moi'. Et d'indiquer une autre route, à n'utiliser que 'de nuit et en se cachant' (*mušitamma napzaram*) : elle passe à Gadašum, puis rejoint le Tigre à Adûm (ou Atûm), où le fleuve est franchi, avant de gagner Baninê (ou Maninê ?), le terminus de l'itinéraire étant sans doute Ekallâtum, résidence habituelle de Išme-Dagan. Rappellons d'abord que la situation d'Ekallâtum a pu être établie par W. W. Hallo : elle se trouvait à une étape au nord d'Assur et W. W. Hallo proposait plus précisement de l'identifier avec un lieu de ruines dénommé Haikal, à 25 km au Nord d'Assur et à l'Est du fleuve. Notre texte confirme bien que la ville de Išme-Dagan était située sur la rive gauche du Tigre. (...)".

The supposed itinerary would therefore have had the following stages:

Gadaššum → Adum → Idiglat → *a-lum ba*$^{?}$*/ma*$^{?}$*-ni-ne-e*^{ki} (Banine = Binanu?) → Išme-Dagan (= Ekallatum)

66 Hallo 1964: 72.

67 The distance between Qal'at Sherqat and Tell Haikal is variously given in the literature as between 15 and 25 km north of Aššur. As the crow flies, it is actually around 15 km, but along the course of the river and including the river crossing, it comes to about 25 km.

68 This seems excluded to us, since the "Old Babylonian Itineraries" attest to camping by a river as such. For camping on the *ah Purattim*, bank of the Euphrates, see in this volume Ziegler, Otto & Fink 2023 § 5.J.3.

69 For the still unpublished letter TH 72.2, see the bibliography in www.archibab.fr/T16920. It will appear in ARM 29 (in preparation).

70 Birot 1973: 4. Cf. Ziegler 2002: 223.

This interpretation by M. Birot cannot be upheld.[71] Išme-Dagan was not in Ekallatum at the time of the writing of TH 72.2, but in the kingdom of Nurrugum and was besieging Nineveh. Yasmah-Addu, the addressee of the letter, was not in Mari either, but stationed at Razama during this campaign. The itinerary suggested by the sender reflected the security problems of message transmission in those days of war. Also, the supposed variant name of the city of Binanu, as noted by M. Birot "Baninê (ou Maninê)?" did not appear in the text and was corrected by Wu Yuhong to *a-lum-ma ni-ne-e*^{ki} = "the city of Nineveh itself".[72] The route favoured by Yasmah-Addu's messengers in this letter was accordingly:

(Razama) → Gadaššum → Adum → Idiglat → the city of Nine (= Nineveh)

The letter author suggests a more protected route via Gadaššum and Adum, where the river had to be crossed—beyond which was the city of *ni-ne-e*^{ki}, a rare variant of the Old Babylonian name of Nineveh.[73] The text TH 72.2 must therefore be excluded from the discussion on the localisation of Ekallatum.[74]

2.3.3 Mari letters raise doubts about the identification Ekallatum = Tell Haikal

In 1988, two groundbreaking works were published with editions and studies of several hundred Mari letters, the volumes ARM 26/1 and 26/2.[75] Several of the letters published there subsequently raised serious doubts about the identification of Ekallatum with Tell Haikal on the eastern bank. Studies in this regard have been published by D. Charpin and J.-M. Durand,[76] by W. Heimpel,[77] and more recently by N. Ziegler.[78] In fact, not a single letter of the Mari archives favours the localisation of Ekallatum on the east bank, while arguments in favour of a location on the west bank of the Tigris accumulate.

The main argument against Hallo's identification of Ekallatum = Tell Haikal had already been brought into play by W. W. Hallo himself (cf. above § 2.3.1)—the fact that the travellers of the so-called "Old Babylonian Itineraries" had to cross the river twice.

Some of the letters from Mari make a location of Ekallatum west of the Euphrates more plausible. For example, a letter from Yasim-El to Zimri-Lim can be considered, which reported on the difficulties of Assyrian merchants on the way to Karana and introduced this thus:[79]

"300 Assyrians and their 300 donkeys left Ekallatum for Karana."

D. Charpin and J.-M. Durand had taken this passage as an opportunity to question the localisation of Ekallatum on the eastern bank of the river in their essay "Aššur avant l'Assyrie".[80] It was unlikely that a caravan of Assyrian merchants would set out from Aššur and travel via a city east of the Tigris on the way to Karana (in or near Tell Afar[81]). A localisation of Ekallatum west of the river thus became more plausible. The wording of the letter is also interesting. One gets the impression that Ekallatum was the actual starting point of the caravan, i.e. the place where the logistics of the caravan had been assembled. For the road that led northwest from Ekallatum, see below § 4.3 and Fig. 3.

Other hints from the Mari archives favour a localisation of Ekallatum to the west of the Tigris.

A city gate of Ekallatum had borne the name "Aššur Gate", which led Jean-Robert Kupper to assume that there was a direct connection between the two places.[82]

The sender of ARM 26/2 420 mentions flocks of sheep that had come from the Suhum region, i.e. the Euphrates valley south of Mari, and that grazed in the surrounding countryside of Ekallatum and Aššur (see § 2.3.4).

More recently, additional corroborating evidence has been published, such as a letter from the chief of pasture Bannum reporting to Zimri-Lim that he had made the

71 Wu 1994. Ziegler 2002: 223-225.

72 Wu 1994. The proposal is correct and confirmed by collation.

73 Ziegler 2004: 20 and cf. also Ziegler 2002: 225.

74 However, it played a role in R. Dittmann's considerations, see below § 3.2.

75 See Durand 1988 and Charpin, Joannès, Lackenbacher & Lafont 1988. For English translations cf. Heimpel 2003 and Sasson 2015.

76 Charpin & Durand 1997.

77 Heimpel's 1996 note appeared more quickly than Charpin and Durand's 1997 article, both were written completely independently of each other.

78 Ziegler 2002.

79 ARM 26/2 432 (www.archibab.fr/T7688): 3-4.

80 Charpin & Durand 1997: 368-370; and independently Heimpel 1996.

81 Ziegler & Langlois 2016: 179-181.

82 ARM 28 171 (www.archibab.fr/T7082): 20 reports the abduction of two informants "*i-na* KÁ *aš-šu-ur*^{ki}" cf. Kupper 1998: 249: "Comme le montre une lettre d'Iddiyatum relative aux mêmes événements (ARM 26/2 523), la 'porte d'Aššur' désigne en réalité une porte de la ville d'Ekallatum. L'épisode conforte la localisation d'Ekallâtum sur la rive droite du Tigre; cf. D. Charpin et J.-M. Durand, *MARI* 8, p. 368-369."

waterholes up to the gate of Ekallatum inaccessible to Išme-Dagan's army:[83]

> "I have heard news about Išme-Dagan that goes like this: 'He is gathering (his troops) in Ekallatum!' I have reinforced the mobile police (*bazahātum*) from Saggaratum district to Suhum district. On each 4 double hours (*bērum*) my mobile police troops hold the wells. I have also issued orders and they have covered all the wells up to Ekallatum gate."

The fact that the wells are mentioned from the Euphrates valley to the "gate of Ekallatum" supports the idea of an Ekallatum located west of the Tigris—otherwise Bannum would have named the Tigris as the ultimate point.

More complicated to interpret is a diplomatic incident between Ešnunna and Mari.[84] According to this Mari text, A.3274+, envoys from Ešnunna were not allowed to travel on from Mari to the Yaminite nomad ruler Sumu-dabi whose capital city was close to Mari on the Euphrates. The messengers from Ešnunna threatened that they would move on to Ekallatum, and from there to Andarig or to Kurda in order to reach the Yaminites. According to this letter, Ekallatum had a direct connection with Andarig and Kurda in the Sinjar region. For this reason, it must have been situated west of the Tigris.

2.3.4 Aššur and Ekallatum are perceived as one geographical unit

Several texts in the Mari archives mention "Ekallatum and Aššur", or "Aššur and Ekallatum" as a common geographical setting of events. This suggests that both toponyms were close to each other and at least on the same river bank, if they did not share even more topographical similarities. General Iddiyatum reported to Zimri-Lim about raids undertaken by Turukkean freebooters in the area between Ekallatum and Aššur:[85]

> "500 Turukkeans made a raid below Ekallatum and Aššur and reached Razama. They captured 100 people and 50 cattle. And nobody stood up to them!"

One can also remind Yasim-Dagan's order, already quoted above, to stop the grazing of the flocks of sheep "in the vicinity of Ekallatum and Aššur".[86]

2.4 Summary of the current state of research

N. Ziegler concluded her study on the geopolitical situation of Ekallatum in 2002 as follows:[87]

> "For the moment, the question of the exact location of Ekallatum remains open. It seems probable to look for it on the right bank of the Tigris and surely upstream from Aššur. The most probable seems to me to suppose that a distance of about 10 to 30 km separated the two places, which could locate it between Tell Huwaiš (generally identified with Neo-Assyrian Ubase) and Qayyara."

She marked the place name on the map about a day's journey north of Aššur (Fig. 1).

The various indications presented above led to the germination of the idea of a location of Ekallatum north of Aššur and west of the Tigris, and it was gradually defended not only by specialists in the Mari archives. We can mention, for example, Jan Gerrit Dercksen, who, in describing the surrounding area of the Old Assyrian metropolis of Aššur, favoured the localisation of Ekallatum on the west bank, even though he could not rely on Old Assyrian texts for this.[88] The most recent research tools on toponymy summarise the state of research in an equally differentiated manner.[89]

Despite the accumulation of circumstantial evidence, the identification of Ekallatum with Tell Haikal or a site east of the Tigris continues to be found in recent litera-

83 ARM 33 64 (www.archibab.fr/T12431): 17'-21'. The interpretation of this passage differs from the *editio princeps*. Durand 2019: 176-177 translates "'ils se trouvent occuper les puits" and comments it in n. v. But see AHw 194b *ekēmum* Gt "völlig überdecken". For waterholes and the ancient techniques to cover them see, this volume, Cancik-Kirschbaum 2023.

84 A.3274+ (www.archibab.fr/T4304) with literature. Envoys from Ešnunna announce ll. 39'-42': "If you do not allow [us] to cross the country here, we leave for Ekallatum and fro[m Ekallatum] we approach to Andarig (or) to Kurda. We [will join] the Yaminites!"

85 ARM 26/2 519 (www.archibab.fr/T7868): 25-31. Cf. Charpin & Durand 1997: 369. Translation Heimpel 2003: 399.

86 ARM 26/2 420 (www.archibab.fr/T7638): 17-18. Cf. Charpin & Durand 1997: 369.

87 Ziegler 2002: 228: "Pour l'instant, la question de la localisation exacte d'Ekallâtum reste ouverte. Il paraît probable de la chercher sur la rive droite du Tigre et sûrement en amont d'Aššur. Le plus vraisemblable me paraît de supposer qu'une distance d'environ 10 à 30 km séparait les deux lieux, ce qui pourrait la localiser entre Tell Huwaiš (généralement identifiée avec Ubase néo-assyrienne) et Qayyara."
See Porter 2006 for comments on the use of the map drawn by the Operational Navigation Chart (ONC G-4) by Ziegler 2002.

88 Dercksen 2004: 156-166.

89 On the Old Babylonian textual evidence cf. Ziegler & Langlois 2016: 94-95, who rule out an identification with Tell Haikal; on the Middle Assyrian documentation see Cancik-Kirschbaum & Hess 2022: 38 and 157; on the Neo-Assyrian evidence Bagg 2017: 166-167.

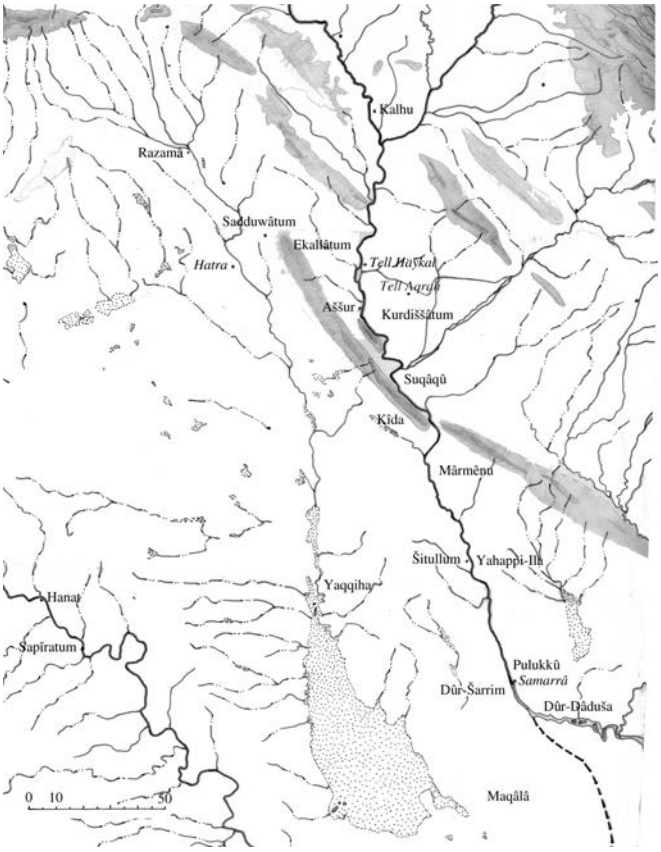

Fig. 1: Map of the Kingdom of Ekallatum as proposed by Ziegler 2002: 238 with tentative localisation of Ekallatum

ture.[90] Mark Altaweel, for example, discusses the question and leaves the answer open in his work on the Neo-Assyrian heartland, but places 'Ekallati' at Tell Haikal and Ubase at Khuwaish on his map.[91] Douglas Frayne could not be convinced of a localisation of Ekallatum west of the Tigris.[92] And even in a history of Babylonia published in 2018, Ekallatum is placed to the south of Aššur despite all written sources.[93]

90 Scardozzi 2011: 10; also the quite cautiously formulated presentation in the 5th Colloquium der Deutschen Orient-Gesellschaft on the topic of *Aššur – Gott, Stadt und Land* can be mentioned, see Postgate 2011: 88.

91 Altaweel 2008: 45. Map on Pl. 3, Fig. 9.

92 Frayne 2012: 38 suggests a Tell Khoueitla southeast of Aššur and east of the Tigris as an identification. Where this tell might be located, however, cannot be determined; we know of no tell of this name in this area.

93 Beaulieu 2018: 77 describes the career of Šamši-Adad: "Later he left Babylon and seized the city of Ekallatum, probably located on the Tigris at not too great a distance from Assur. After three years he captured Assur". In the map "Map 3.2" p. 81 one finds Ekallatum in the south of Aššur near the confluence of the Lower Zab and the Tigris.

2.5 Compilation of the search criteria based on the text documentation

When searching for a localisation of Ekallatum, the following criteria must be taken into account, which we compile here telegram-style.

Ekallatum was

- a site west of the Tigris, one day footwalk north of Aššur,
- the capital city of Šamši-Adad, perhaps existing before his conquest under another name,
- the residence city of Išme-Dagan, with residences from other high dignitaries. All members of the Šamši-Adad administration are called "Ekallateans" after the collapse of his reign. The site perhaps continued to play a political role in the following decades, with moments of political difficulties between Ekallatum and Aššur,
- a city with occupation in the Middle Assyrian period,
- an important provincial city in the "Inner City district" of the Neo-Assyrian empire situated on the King's Road.

3. Proposals for identification with archaeological sites to date

Three significant proposals for the localisation of Ekallatum have been made so far. We present these in the following.

3.1 Tell Haikal / Hekel (Hig. No. 416), East: 43.272797 / North: 35.597384[94]

As already explained above, Ekallatum has been identified since the proposal by W. W. Hallo with Tell Haikal, which lies about 15 km north of Aššur on the eastern bank of the Tigris. This suggestion was largely based on the alleged similarity of the name. Several authors followed this suggestion of identification regretting that they never visited the site themselves.[95] For example, David Oates writes about Ekallatum:[96]

94 We refer to archaeological sites under their "Hig. No.", which means the "Higeomes number" assigned to the archaeological tell or site in the French-German HIGEOMES project (funded by ANR/DFG) on the 'Historical Geograpy of the 2nd millennium in Upper Mesopotamia". For the sites see Fink 2016, for the Old Babylonian textual references see Ziegler & Langlois 2016, for the Middle Assyrian references see Cancik-Kirschbaum & Hess 2016. For Tell Haikal/Hekel see Fink 2016: 69 and Ziegler & Langlois 2016: 93–95.

95 Hallo 1964: 72 fn. 8; Oates 1968: 38-39 fn. 5; Reade 1978: 170.

96 Oates 1968: 38 fn. 5.

„I cannot help being struck by the similarity of the name to modern Tell Haikal, on the east bank of the Tigris 15 km. north of Aššur. I have unfortunately been unable to visit the site, which is said to be a large mound with evidence of Late Assyrian occupation. Since this note was written the position of Ekallātum north of Aššur has been established by the discovery of a complete copy of the 'Illinois Itinerary' (A. Goetze, JCS, vii (1953), 65. The new text places Ekallātum between Aššur and Apqum (Tell Abu Marya)."

Subsequent researchers adopted this identification Ekallatum = Tell Haikal.

To our knowledge, only Walter Bachmann in 1913, Jorgen Laessøe in 1964/1965 and Reinhard Dittmann in 1989 have visited the mound and published their visit so far.[97] The description by W. Bachmann, a fellow architect of Walter Andrae in Aššur, was found by R. Dittmann in his estate and published in 1995. W. Bachmann describes the "Ruine Hekel" as an extensive city of about 1.5 by 1 km, without any city wall, but with remains of ancient canals,[98] the city area being marked by innumerable small and larger mounds of debris, on which large quantities of sherds of all periods, baked bricks (partly inscribed or stamped) and basalt stones were found. Furthermore, Bachmann mentions the remains of larger buildings in regularly bordered mounds. In the southern part of the ruin directly on the bank break-off, Bachmann notes a building whose 2 m thick mud-brick walls were covered with orthostate slabs from baked clay. Additionally, many fragments of stamped bricks bearing the word *ekalli* were found there; Bachmann therefore concluded that there had been a palace or another kind of large building. Bachmann refers in his notes to this entry to the Sennacherib account of the gods of Ekallate, and thus seems to have assumed as early as 1913 that "Hekel" was to be identified with "Ekallâte". However, W. W. Hallo could not have been aware of this hypothesis, since Bachmann's notes were only published much later.

R. Dittmann dealt in detail with the location of Ekallatum[99]. He doubted the identification of Tell Haikal with Ekallatum because he had surveyed the site for several hours in 1989, but had not found any Old Assyrian material on the surface, although the mounds were covered with looters' holes. He concluded:[100]

"An important Old Assyrian settlement is therefore not to be expected here; a smaller one, on the other hand, cannot be ruled out."

Dittmann found Middle Assyrian pottery of the 13th century as well as Parthian, Sasanian and Islamic pottery. According to Dittmann, the stamped bricks that Bachmann had picked up dated to the Middle Assyrian kings Shalmaneser I and Adad-nirari I.[101]

Jorgen Laessøe[102] was also interested in Tell Haikal because of the Old Babylonian itineraries and convinced by the homophony of Haikal and Ekallatum. He visited the ruins in 1964 and 1965 and commented on the survival of the place name as follows:[103]

"On the map 'Baghdad', Series 1301, Sheet N 1-38, Edition 7-GSGS (Director of Military Service, War Office, London, 1962 [World 1:1,000. 000]), where the three Isdira villages appear under the designation 'Sudaira', there is the annotation 'Haichat' (Ruined) (-t obvious truncation for -l) for the area referred to by the local population as Tulûl el-Haikal ('haikal' locally often pronounced palalised as 'haičal'). Tulûl el-Haikal, 'Haikal-hills' (tulûl, pluralis of Arab. tell 'ruinhill'), is linguistically indistinguishable from Akkadian *ekallâtum* 'palaces', plur. of *ekallum*, one of the relatively few Sumerian loan words (Sumerian é-gal 'great house' which has survived in Hebrew hêkhal 'royal palace; temple', Biblical Aramaic hêkhal and Egyptian Aramaic haikhêlâ (same meaning); Thus the Akkadian *ekallum* 'palace' was transmitted through Aramaic or Syriac into Arabic, and there was therefore much likelihood that an old place-name like Ekallâtum might have survived in the form Haikal."

J. Laessøe concluded, on the basis of material collected from the surface and soundings by M. A. Mustafa, that

97 Dittmann 1995.

98 Dittmann 1995: 92.

99 Dittmann 1995: 100-102.

100 Dittmann 1995: 101: "Eine bedeutende altassyrische Siedlung ist hier also wohl nicht zu erwarten; eine kleinere sei dagegen nicht ausgeschlossen."

101 Dittmann 1995: 101.

102 Laessøe 1966: 32-33 fn 25. Parts of the footnote were translated from Danish into English by J. Eidem in Eidem & Hojlund 1997: 31.

103 Laessøe 1966: 32 Fn. 25 (Translation above by DeepL): "På kortet 'Baghdad', Series 1301, Sheet N 1-38, Edition 7-GSGS (Director of Military Service, War Office, London, 1962 [World 1:1.000.000]), hvor de tre Isdira-landsbyer figurerer under betegnelsen 'Sudaira', findes notatet 'Haichat' (Ruined) (-t indlysende Trykfejt for -l) for det område, som den lokale befolkning betegner som Tulûl el-Haikal ('haikal' lokalt ofte udtalt palaliseret som 'haičal'). Tulûl el-Haikal, 'Haikal-hojene' (tulûl, pluralis af arab. *tell* 'ruinhoj'), kan linguistik ikke adskilles fra akkadisk *ekallâtum* 'paladser', plur. af *ekallum*, et af de relativt få sumeriske låncord (sumerisk é-gal 'stort hus' som har levet videre i hebraisk (...) *hêkhal* 'kongepalads; tempel', bibelsk aramæisk (...) hêkhal og ægyptisk aramæisk (...) haikhêlâ (samme betydning); således et det akkadiske *ekallum* 'palads' gennem aramæisk eller syrisk overleveret til arabisk, og der var derfor megen sandsynlighed, for, at et gammelt stdnavn som Ekalltum kunde have levet videre i formen Haikal."

the flat, extensive ruined site of Haikal was an important city of the Neo-Assyrian, Post-Assyrian—especially Parthian—and Islamic periods. Nevertheless, he remarked with astonishment:[104]

„Tulul el-Haykal was an extensive site with many low mounds, but there was no high mound which might testify a long-term occupation or a zikkurat."

To explain this, he suggested that Ekallatum (= Tell Haikal) may not have been permanently inhabited. He concluded by mentioning the ruins of the supposed ancient Ubase (see below, § 5.) on the opposite river-bank:[105]

"In sum, it must be regarded as highly likely that the ruins of Ekallâtum hide beneath the low mounds of Tulûl el-Haikal. Within view is the cone of the zikkurat in Kâr-Tukulti-Ninurta (now Tulûl el-ʿAqr); on the opposite bank towards the southwest the widespread ruins of Assur are visible and directly opposite Haikal are the ruins of the Assyrian Ubâse (now Huwaish), which the Assyrian texts firmly associated with Ekallâtum."

In his book on the heartland of Assyria, Marc Altaweel also mentions excavations in Haikal, which also did not record any early layers:[106]

"Recent Iraqi Archaeological excavations have only shown post-Neo-Assyrian remains at the site, but these results are not published."

Meanwhile, some results of the Iraqi excavations by Burhān S. Sulaiman have been published.[107] However, most of them date to the Christian period. Another publication indicates that structures of monumental buildings, all of them belonging to the 1st millennium B.C. and A.D., were excavated within the extended settlement area consisting of several small elevations of little height.[108] Nevertheless, the identity of Tell Haikal with Ekallatum has also been assumed by some Iraqi colleagues until recently.[109]

The aerial photographs available today confirm the results of the above-mentioned surveys: Haikal is an oval flat settlement of little height, measuring approximately 1300 by 800 m. Neither a city wall nor a prominent main mound are discernible.[110] Pottery and other surface finds date exclusively to the periods between the Middle Assyrian and the Islamic periods. In sum, neither the archaeological material found on the surface nor the excavated areas nor the overall structure and lay-out of the site contain even the slightest hint to identify Tell Haikal with Old Babylonian and Old Assyrian Ekallatum.

3.2 Tell Aqrah / Akrah (Hig. No. 14; East: 43.420447; North: 35.502376)

The above described lack of positive evidence for the identification of Ekallatum with Tell Haikal led R. Dittmann to search for Ekallatum further inland on the eastern side of the Tigris. According to Dittmann, Tell Aqrah in the Mahmur Plain, about 20km east of Aššur, was an ideal candidate: it is about 15-25 ha in size and consists of a central tell enclosed by a polygonal ring. It was visited in 1913/14 by W. Bachmann, in 1948 by M. al-Amin and M. Mallowan, who also made soundings, and again by R. Dittmann in 1989.[111] Allegedly, the material on the surface dates only from the second millennium and is predominantly Old Assyrian, including Habur and Nuzi pottery. According to R. Dittmann, the site lost importance after the Middle Assyrian period.

Essential to Dittmann's identification proposal is the assumed inland location of Ekallatum, as erroneously suggested by M. Birot in 1973 (see above § 1.3.2.). Therefore, Dittmann proposes to identify Ekallatum with Tell Aqrah, Tell Ḥuwaish with Adum, and Haikal with B/Manine.[112] However, this argumentation is invalid because the Mari text TH 72.2 does not indicate an itinerary to Ekallatum but to Nineveh (see § 2.3.2.), and the Tell Aqrah identification can now be ruled out with certainty.

3.3 Tell ed-Dahab

E. Forrer, in his seminal work on the provincial division of Assyria, proposed to identify Ekallatum with Tell ed-Dahab, which lies on the east side of the Tigris south of Aššur and south of the confluence of the Little Zab with the Tigris.[113] The reasoning was based on the Assyrian king lists, and on the reconstruction of Marduk-nadin-ahhe's campaign against Assyria, which could lead to the assumption that Ekallatum was located south of Aššur. Already at the beginning of the 1930s, F. H. Weißbach argued against

104 Laessøe 1966: 32 fn. 25, translation Eidem & Hojlund 1997: 31.
105 Laessøe 1966: 32 fn. 25, translation Eidem & Hojlund 1997: 31.
106 Altaweel 2008: 34.
107 Sulaiman 2010.
108 Saleh 2020.
109 Al-Hamidha 2020a.
110 The only noticeable structure is a square elevation about 90 m on a side, which looks like a fort.
111 Dittmann 1995: 95–96, 102, Abb. 6a, 6b; el-Amin & Mallowan 1950: pl. IV.
112 Dittmann 1995: 102; for his proposed identifications see his map of the Mahmur plain, *ibid*.: 88, Abb. 1.
113 Forrer 1920: 11-12.

this localisation, even though he still assumed Ekallatum to be south of Aššur (§ 2.2.1). But not only the textual evidence (see § 2) excludes the localisation of Ekallatum south of Aššur, but also the archaeological evidence speaks against the identification with Tell ed-Dahab, since no material from the Old Babylonian / Old Assyrian period has been attested.[114]

4. The new identification of Ekallatum = Tell Ḥuwaish (Hig. No. 417; East: 43.231166; North: 35.593622)

We want to suggest in this study not to equate Ekallatum with any of the three tells mentioned in § 3, neither with Tell Haikal (§ 3.1), nor with Tell Akrah (§ 3.2) and by no means with Tell ed-Dahab (§ 3.3). Instead, we propose to locate Ekallatum in Tell Ḥuwaish on the western bank of the Tigris, about 16 km north of Aššur, i.e. only a short day's journey apart, on an ancient road connection (Fig. 2).

4.1 Archaeological artefacts and features according to inspections of the site by W. Bachmann and D. Oates

The first documented visit of Tell Ḥuwaish was made by Walter Bachmann, who was a member of the German excavation team in Aššur from 1908-1914. Probably in 1914[115], Bachmann travelled east of the Tigris through the Mahmur plain, which is framed by the Tigris and the Lower and Upper Zab; additionally, he visited a few sites north of Aššur on the west bank of the Tigris. However, his descriptions of the ancient sites were only published in 1995 by R. Dittmann, who had access to his bequest and reproduced Bachmann's notes *verbatim* in his essay.[116]

W. Bachmanns described the location of Ḥuwaish on a steeply rising natural plateau, which was naturally protected on three sides. He highlighted the similarity between the location of "Tell Huweish" and that of Aššur: Ḥuwaish was also located at the southern end of a plain, in this case the larger Chenaf plain, just as Aššur is situated at the southern end of the Sherqât plain. Furthermore, it also lay high above the Tigris valley on a steeply sloping plateau. This had been cut on the southern side by the Wadi Chenaf coming from the northwest in such a way that a tongue of the natural plateau rises sharply from north to south. Only the west side thus offered a fortificatory weak point, which in turn had to be fortified by a mighty rampart. W. Bachmann noted the considerable width of this rampart or city wall, which in his opinion was probably made of mudbrick and had no tower protrusions, but gates which were visible in two places. He assumed that if there had been a ditch in front of the wall, it must have been a shallow one.[117] The latter observation is the only one which seems to be outdated today, since the satellite imagery shows clearly a ditch outside the mighty city wall.

Bachman gives the considerable size of the settlement in NW-SE direction as about 1.5 km. As for archaeological material that could give an approximate clue to dating, he mentions gravel paving in some places, which he compares with that of Neo-Assyrian houses in Aššur. He further described baked bricks being common and mentions one inscribed brick fragment refered to the palace of a governor which he had found on the dominant elevation in the

114 Dittmann 1995: 100 with fn. 20.

115 The sketch map redrawn by Dittmann 1995: Abb. 2 dates from 1914, therefore we assume that the journey took place in 1914.

116 Dittmann 1995. The fact that Dittmann's identification for Ekallatum with Tell Aqrah is no longer tenable today was explained in § 3.2. However, his discovery and reproduction of Bachmann's account is of lasting value.

117 W. Bachmann described "Tell Huweisch" as follows (cf. Dittmann 1995: 91-92): "Wie die Stadt Assur am Südende der Scherqâtebene, liegt diese Ruine am entsprechenden Ende der größeren Chenâfebene. Eine steil abfallende Hochplateauwand begrenzt auch hier die breite Alluvialebene. In dieses Plateau schneidet das von Nordwesten aus der Wüste kommende Wadi Chenâf eine breite, tiefe Rinne ein, die ebenfalls am Südende der Chenâfebene den Tigris erreicht. Es entsteht so eine stark ansteigende Hochplateauzunge, die nur von der Wüstenseite her leicht zugänglich war. Diese Zunge war aber leicht mit einfachen Mitteln abzuschließen und zur Befestigung auszubauen. So erklärt es sich, daß nur an der offenen Westseite des Stadtgebietes ein Wallzug vorhanden ist. Das Ruinengebiet selbst ist recht ausgedehnt, in der Nordwest-Südost-Richtung ca 1 ½ km, doch sind die Spuren der Besiedlung verhältnismäßig gering. Fundamente werden überhaupt nirgends an der Oberfläche sichtbar, an einigen Stellen tritt aber Kiespflaster zu Tage, wie man es in Häusern der jungassyrischen Periode in Assur findet.

Bruchstücke von Basaltskulpturen fehlen anscheinend ganz, ebenso Gipsplattenbruchstücke. Gebrannte Ziegel sind häufig. Größere Erhebungen, die auf Terrassierungen oder größere Gebäude schließen lassen könnten, sind nicht vorhanden. An vielen Stellen des Stadtgebietes, vor allem am Südost-Ende der Zunge tritt der Kies-Fels zu Tage.

Der Wall bestand vermutlich nur aus einer lang durchgehenden Mauer aus Lehmziegeln von anscheinend beträchtlicher Breite. Turmvorsprünge markieren sich nirgends. An zwei Stellen ist der Wallzug unterbrochen, so daß man hier Tore annehmen könnte. Ein Graben scheint überhaupt nicht vorhanden gewesen zu sein, beziehungsweise wenn, dann höchstens flach.

Die Scherben finden sich gehäuft an einigen Stellen des südöstlichen Stadtgebietes und in der Nähe des Walls, auffallend wenige im mittleren Stadtgebiet (Plätze?). Ein beschriftetes Ziegelbruchstück fand sich auf der dominierenden Kuppe im Südosten, erwähnt Palast eines Statthalters."

Fig. 2: General situation of Tell Ḥuwaish and Tell Haikal north of Aššur on the Tigris (map B. Einwag based on ESRI satellite image 2023)

southeast. He mentions masses of sherds—unfortunately not saying anything about their dating—in various places in the south-eastern part of the city and near the city wall.

The mound was visited for the second time by David Oates. He describes the site thus:[118]

> "...Tell Huwaish, overlooking the Tigris 20 km. north of Assur"
>
> "The site of Tell Huwaish (...) lies on a tongue of elevated land between the Tigris valley and the Wadi Jirnaf, overlooking the modern railway station of Jirnaf. It has no obvious citadel mound. A conglomerate bluff at the southern tip of the ridge may originally have served this purpose, but there seems to be no great accumulation of artificial debris on its summit, which is now heavily eroded. There is a considerable scatter of pottery, including post-Assyrian types, on the slope of the bluff and on the low mounds on the undulating ground to the north. The most prominent feature of the site is the north wall, which runs across the neck of the promontory about 1 km. from its southern end. This is still up to 8 m. high on the exterior face, with traces of a ditch."

It has to be stressed that D. Oates speaks of the considerable amount of pottery on the surface, but is not explicit about the dating of the potsherds. Since the main interest of his study was clearly oriented towards the late history of Northern Iraq, he mentions that the pottery was "including post-Assyrian types". However, this has been mis-interpreted by numerous later scholars who never visited the site, but nevertheless claimed that the site dated uniquely to the post-Assyrian period.

4.2 Description of the urban structure of Tell Ḥuwaish after evaluation of the satellite images

Fortunately, more and better satellite images of the area investigated here have been made accessible in recent years, which gives a whole new significance to remote sensing as an important method in the study of historical geography. CORONA images from the 1960s as well as ASTER images and DigiGlobe images are today an invaluable source in the study of this region north of Aššur and west of the Tigris, which has been largely untouched by archaeological fieldwork.[119]

Indeed, the features described by W. Bachmann and D. Oates can be well traced on the aerial photographs, especially the Corona satellite images from the 1960s,[120] and on aerial photographs of this century (Fig. 2). But even additional and more precise information can be obtained from the satellite images (Figs. 3a, 3b).

The town is of an elongated-oval shape and very large measuring about 1400-1800 m NW–SE and about 700-750 m SW–NE. This makes an area of about 108 ha and a circumference of about 4.5 km—larger than Old Assyrian Aššur and any other Old Assyrian / Old Babylonian mound of the region. It is protected on the northern and western flanks by a mighty city wall with—to judge from the satellite imagery—a moat or ditch in front of it. A large city gate can be seen in the north, named 'Northern Gate' by us, and at least three more gates further south in the western flank, and possibly one or two gates in the east.[121] The eastern flank of the town slopes so steeply down to the Tigris valley that no fortification may have been necessary here or has been eroded over the millennia.

Aerial photographs show that the settlement of Ḥuwaish consists of an extensive lower town to the northwest and an elevated citadel to the southeast. The Citadel alone measures about 750-800 by 350-450 metres. Another elevation can be seen on the aerial photographs, situated on the outer southern point of the citadel; we refer to it as the Akropolis.[122]

The fortified city is situated—similar to Aššur—on a natural elevation, which is given a triangular top by the confluence of the Wadi Jirnaf (or Chenaf) with the Tigris. As regards the urban structure and size, it is striking that the citadel's location on the promontory that juts into the valley is, firstly, strategically ideal. Secondly, it becomes evident that prominent buildings such as temples, which should have been erected on the citadel and/or the acropolis, must have shaped the cityscape from afar, similar to Aššur (e.g. in the famous reconstructions by Walter Andrae).

118 Oates 1968: 59-60 with fn. 5. D. Oates had already cautioned against confusing the two sites called Tell Ḥuwaish (*ibidem* fn. 5): "The site of Tell Huwaish (not to be confused with Tell Huwaish south of Beled Sinjar...) lies on a tongue...". Unfortunately, this happened to us in MTT I/3 (Fink 2016: 69) s.v. Hig. No. 417 (Khuwaish, Tall). Therefore, the following shall be deleted from the entry there: „Grabung", the dating to the LBA (1), as well as literature "Oates 1985a". The homonymous site "south of Beled Sindjar" is Hig. No. 63 (Hwesh, Tall) (Fink 2016: 11). The identification there with "mAss: UBASĒ" is to be deleted.

119 The coverage of the area with satellite imagery has been well presented by Simone Mühl (Mühl 2013 : pl. 3). M. Altaweel's study of the area was predominantly based on satellite images and the results of surveys by previous archaeologists (Altaweel 2008).

120 https://corona.cast.uark.edu/atlas#zoom=15&center=4812751,4244642.

121 Possibly one of the southern gates was called the "Aššur Gate", see § 2.3.3.

122 A single square building stands out on the aerial photographs, which should measure about 50m on a side if the erosion debris on the flanks around it is deduced. What kind of building of what period we are dealing with here, would have to be investigated on site.

Fig. 3a: Modern satellite image of Tell Ḥuwaish (ESRI satellite 2023)

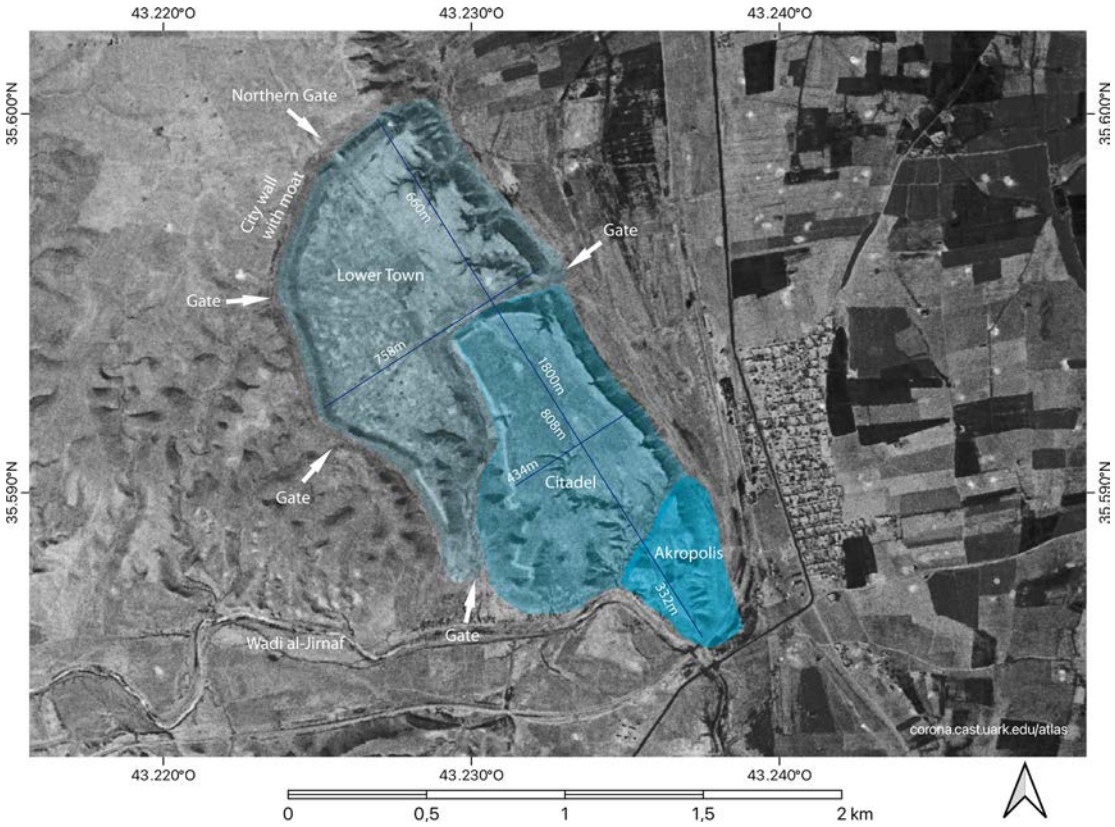

Fig. 3b. Analysis of the Corona satellite image of Tell Ḥuwaish and measurements (mapping by B. Einwag on Corona base map, August 16, 1968)

If we summarise all this information, Tell Ḥuwaish is a strategically perfectly situated site, strongly fortified on the fortificatory sensitive sides to the west and north-west by a massive city wall with a moat in front of it. The city is located at a particularly wide plain of the fertile river valley, which would guarantee the supply of a medium-sized population. The lower city would offer sufficient space for thousands of people, either in built houses or in camps during periods of war and tension. The more elevated citadel, separated from the Lower Town by another wall, with the acropolis on the extreme edge high above the valley, speaks for a functional differentiation of the urban structure, where presumably public or sacred buildings were to be separated from the more domestic quarters.

Given the remarkable morphology and extensive size of Tell Ḥuwaish, it is therefore extremely surprising that the site has not been considered as a candidate for Ekallatum earlier. This is partly because the site was usually identified with Ubase (see § 5) and partly because the dating of the site was uncertain due to lacking excavation or survey data (see § 6).

4.3 Tell Ḥuwaish as the starting point of a large long-distance road from the Tigris valley towards the northwest = the King's Road ?

Furthermore, Tell Ḥuwaish also seems to be ideally situated in terms of transport and trade, as the Tell is a departure point where a direct route to the north or northwest leads to Jebel Sinjar and further into the Habur Triangle. Starting from the northern city gate, a major route can be observed on CORONA satellite imagery, running dead straight to the NNW (Fig. 4). This route was still visible in the terrain, at least until the 1960s. David Oates described this ancient route, which he followed on his survey of the area:[123]

> "An opening near the middle of the wall seems to mark the site of a gate, and from this point the faint trace of an ancient road can be followed across country for some 18 km., running north-west in the direction of Tell Afar."

This road or route begins directly at the northern city gate of Ḥuwaish, and it even continues inside the Lower Town until the Citadel, where a slight depression in the north wall may indicate the Citadel's gate giving access to this major road. It is very likely that an important route is hidden here, which was probably just as much the usual trade route of Old Assyrian merchants as the so-called "King's Road" of the 1st millennium. Because routes from the Tigris valley near Aššur towards the upper Tharthar, Sinjar and Habur triangle (and, if necessary, further in the direction of Anatolia) are only possible here in the approximately 30km wide corridor between the Jebel Najma and the Jebel Makhul in SSE–NNW direction. If one did not take this route, one would have to follow the valley in a NNE direction and then turn NW much further north at the height of Kalhu or Nineveh. However, this meant a diversion, and moreover, there were several valleys and rapids in the Tigris (e.g. the rapids near Qayyara) to negotiate.

This important route can be traced in satellite imagery for more than 25 km (see also Ziegler, Otto & Fink 2023 this volume, Fig. 11). It may even be assumed that it was regularly guarded with towers or road stations. Possibly, these can still be traced on the ground. D. Oates (1968: 59-60) described these features, which are rarely found in archaeology, as follows:

> "At intervals of some 4km., where the road crosses the crest of a ridge, there are small mounds between 5 and 10 m. in diameter. On these only a few sherds of indeterminate character were found. Their purpose is obscure; they are well sited for signal stations but seem unnecessarily close to one another. Only four were identified and their siting may be fortuitous. Clearly, however, an important northwest road has at some time gained the Tigris valley at Tell Huwaish, and the site itself was important enough to warrant the construction of an imposing rampart on the north, the only side without natural defenses. Excavations would be necessary to determine when this took place."

The dating of the stations is not clear from Oates' description. However, the fact that this eminent scholar, who was particularly interested and specialized in the Late Period at the time, could not date the sherds he picked up at the stations, could possibly be an indication of the greater age of the sherds.

D. Oates traced the route from Tell Ḥuwaish further NW until Tell Afar, i.e. over about 100 km, on his map entitled "North Iraq in the Parthian period", but the roads in this region, which has been sparsely populated throughout the ages until today, were probably in continuous use.[124] M. Altaweel also assumed due to the "long-distance hollow ways northwest of the site" that Tell Ḥuwaish was "a relatively significant settlement" and—on the basis of the visible remains of a road system on the east bank of the Tigris—a major crossing point.[125] He even does not exclude

123 Oates 1968: 59-60 with fn. 5.

124 Oates 1968: 76 fig. 5. See Ziegler, Otto & Fink 2023 (this volume), fig. 10.

125 Altaweel 2008: 68 fig. 19.

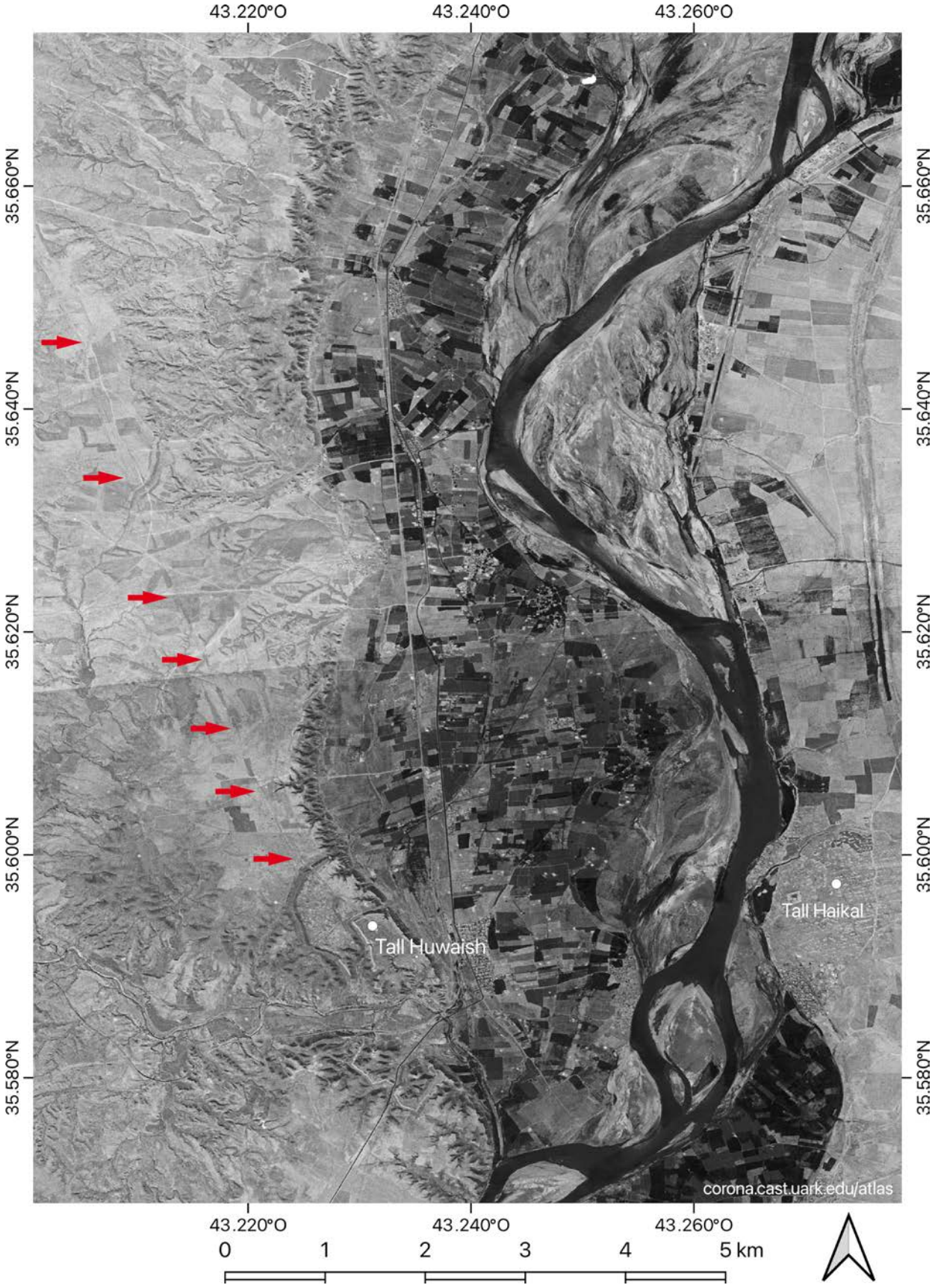

Fig. 4: Major ancient long-distance road starting at the Northern Gate of Tell Ḥuwaish = the King's Road ? (Corona satellite image 1968)

the localisation of Ekallatum in Ḥuwaish but he does not commit himself, as he has never visited the place.[126]

4.4 Tell Ḥuwaish and Tell Haikal on either side of a ford

As we have shown in § 1, the strongest argument for an identification of Ekallatum with Tell Haikal was the relative homophony. Can it be that this similarity had reasons in the history of settlement? Or is the phonetic proximity of the two toponyms, separated by millennia, merely due to coincidence?

In the Near East, it was not uncommon for settlements to be located directly opposite each other on both sides of a large river. Especially where rivers could be easily crossed, these settlements also had the function of bridgeheads. Sometimes, over the centuries, a settlement shifted from one bank to the other, which was related, among other things, to the accessibility of the fields located in the valley and the main roads. Good evidence for the existence of two important cities on both sides of the Tigris are Nineveh—Mosul or Seleucia—Ctesiphon. Known examples of two Bronze Age cities on either side of the Euphrates at one ford are Yakaltum/Ekalte (Tell Munbaqa, Hig. No. 90) and Azu (Tell Hadidi, Hig. No. 49), or in the Suhum Yabliya (Tell al-Judafia, Hig. No. 734) and Yabliya-al-kapim (Tell Shishin, Hig. No. 682).[127]

The floodplain at Ḥuwaish measures 3km in a west-east direction and forms a large alveolus; various backwaters on the aerial photographs show that sometimes the Tigris must have flowed right past Ḥuwaish. Directly opposite on the other side of the river is Tell Haikal. It is possible that Ḥuwaish and Haikal were twin settlements whose population may have lived in one place or the other, depending on where the Tigris dug its bed. Today the Tigris runs directly along the western edge of Haikal, but the various meanders show that at times the Tigris must have run directly along the eastern edge of Ḥuwaish. The shift in settlement could therefore have depended to the accessibility of arable land; for in this borderland of the rain-fed farming zone, the broad valley floodplain guaranteed sufficient yields, whereas cereal cultivation on land outside the fertile valley was far less productive, and even not guaranteed at all in dry years.[128] The Corona images also show that the upper reaches of the Tigris form even larger fertile areas than here in only two places, namely at Nineveh and Kalhu. The place for the supply of a large city was therefore ideally chosen here.

Therefore, it cannot be completely ruled out that settlements were made on both sides of the river at the same time in some periods. As we will see in § 5.1, this is possible for the Middle and Neo-Assyrian periods. An important factor for the close connection of the two cities on both sides of the Tigris, and an explanation for why the King's Road begins exactly at Tell Ḥuwaish, is a ford that lies between Ḥuwaish and Haikal. This ford is one of the few easy crossing points along the upper reaches of the Tigris that was indicated on Kiepert's map of 1893.[129]

M. Altaweel also concludes from his study of hollow ways that "Tell Khuwaish… may have been a major crossing point…" and "a major node in a long-distance road system northwest of the site… and possibly to the northeast…", by the latter meaning the hollow ways continuing east of the Tigris.[130]

5. Arguments against the identification of Tell Ḥuwaish with Ubase

One of the main reasons why Ekallatum was not identified with Tell Ḥuwaish earlier, is that Ḥuwaish has been identified with Ubase until recently, as well in literature and in maps.[131] However, the localisation of Ubase at Tell Ḥuwaish was not originally the only existing hypothesis. With good arguments it had also been proposed to equate Ubase with Qayyara. In the following we want to get to the bottom of this question. Does Ubase really have to be searched for in present-day Ḥuwaish?

126 Altaweel 2008: 45 claims: "Other possibilities for the location of Ekallate include Tell Khuwaish and Qaiyara, which might be candidates for the Old Babylonian period location of the town."

127 Charpin & Millet Albà 2009; Rumaiydh 2010.

128 As the river valley is deeply cut into the natural ridges, the areas outside the valley can only be irrigated by means of canals running off far above, as was also established on the eastern side of the Tigris: see the canals on W. Bachmann's map, Dittmann 1995: 88 fig. 1. In general, this region lies at the edge of the rain-fed agriculture.

129 Richard Kiepert made his highly significant map in 1893, on which he recorded many routes of travellers, including Max Freiherr von Oppenheim's journey (Kiepert 1893). Oppenheim noted this ford on his 1893 journey from Mosul to Baghdad, which he covered on a kelek boat (Oppenheim 1900: 207). Overall, he does not note many fords along the Tigris, which can be easily crossed in a few places only.

130 Altaweel 2008: 68 and caption to Pl. 7, Fig. 19.

131 See for instance most recently al-Hamidha 2020b, Scardozzi 2011. For the map by Oates (1968) see Ziegler, Otto & Fink this volume, Fig. 10.

5.1 The state of the debate on Ubase in the relevant research tools

Before we delve into the question of identification, let us look at how the relevant scholarly research tools present the evidence for the Assyrian site of Ubase.

Khaled Nashef sums up the bibliography on the state of research concerning Middle Assyrian textual documentation:[132]

> "E. Forrer, Provinzeint. 105 (nach F. Delitsch): = Tall al-Ḥuwēš, ca. 18 km nördlich von Aššur auf dem westl. Ufer des Tigris (s. auch D. Oates bei J. V. Kinnier Wilson, Wine Lists 111). Zur Untersuchung des Talls s. D. Oates, Studies 595. In Sites 177 ist Tall al-Ḥuwēš als nA angegeben. W. Andrae, FWA 153: = 'Gajara' (Qayyāra?), 30 km nördlich von Aššur."

Similarly, one reads in MTT I/2 on Middle Assyrian Ubase, for which there are four different textual references:[133]

> "Stadt in der Nähe von → Aššur. Eine Identifizierung mit dem heutigen T. Ḫuwēš, ca. 15 km nördlich von Assur, ist möglich."

On the Neo-Assyrian documentation, Ariel Bagg writes a detailed commentary,[134] leaving open whether the toponym is to be identified with Tell Ḥuwaish or with Qayyara—the latter because Ubase is mentioned in connection with bitumen.

In the Helsinki Atlas, "Ubasê" is located in Tell Ḥuwaish and lies opposite "Ekallati", which is recorded on the eastern bank of the river at Tell Haikal.[135] Surprisingly, there is no entry for Ubase in the *Reallexikon der Assyriologie und Vorderasiatischen Archäologie*.

5.2 Line of reasoning for the alleged identification of Ubase with Tell Ḥuwaish

The proposal to identify Ubase with Tell Ḫuwaish has a long history but few decisive arguments. E. Forrer wrote regarding this city and invoked only the authority of F. Delitzsch:[136]

> "Ubase. Ubase in der Bezirksliste K. 4386, I.6. Es muss eine sehr alte assyrische Stadt gewesen sein, da sie bereits bei Adad-nirari I. vorkommt (Br. M. Nr. 90978. R. 6). Fr. Delitzsch hat sie in den MDOG mit Tell Huwesh am Tigris (14 km im N von Assur) identifiziert."

J. V. Kinnier Wilson uses a topographical argument suggested to him by D. Oates:[137]

> "...Oates allows me to put forward his own suggestion that it is to be identified with the modern Tell Huwaish, about 15 km. north of Assur on the West bank. The Harper letter ABL 626[138], which mentions in rev. 6-7 a reed-filled wady (*naḫlu*) at Ubasê can also be brought into the argument since at Tell Huwaish there terminates the only wady to be seen for many miles around."

The latter is—in our opinion—really not a strong argument, since there are plenty of reed-filled wadis leading towards the Tigris.

M. Altaweel treats both Tell Haikal and Tell Ḥuwaish in detail. He seems undecided about the identifications, but prefers to identify Ubase with Ḫuwaish:[139]

> "The town of Ubasê has been associated with Tell Khuwaish on the west bank of the Tigris, which lies about 15 km to the north of Ashur (Oates 1968:59; Nashef 1982:269; Parpola and Porter 2001:17)... There are other alternatives for the location of Ubasê, although none of these other candidates are as likely as Tell Khuwaish. The town of Qaiyara has been proposed by Bachmann and the Iraqi Atlas of Archaeological Sites (Dittmann 1995:88; Directorate General of Antiquities 1976). Both these identified sites have no clear historical data that would seem to support these claims."

132 Nashef 1982: 269. For the abbreviations see his bibliographical list p. XIIff. Most of the references are included again below.

133 Cancik-Kirschbaum & Hess 2016: 152. Bibliography *ibidem*.

134 Bagg 2017 vol. 2: 620. Abreviations see vol. 1: XIff.: "Stadt am Tigris, nördlich von → Assur, CTN 3, S. 251 zu Z. 9, Zadok (1995a) 244, 4.2. Forrer (1920) 105 (nach einem Vorschlag von F. Delitzsch, gefolgt von Oates [1968a] 59 Anm. 5 u. auch CTN 1, S. 111) schlägt vor, U. mit Tall al-Ḥuwaiš, ca. 18 km nördlich von Assur am rechten Tigrisufer zu identifizieren. Da nach einigen mA Belegen U. in Verbindung mit Bitumen zu stehen scheint, wird von Andrae (1913) 153 (sowie auch Hannoon [1986] 140-142, Postgate [CTN 3, loc. cit.] u. Reade [1978a] 170 Anm. 88) eine nördlichere Lage bei Qayyāra, ca. 40 km nördlich von Assur bevorzugt. Nach einer Inschrift des Adadnārārī I., wurden 'Kalkstein und Mörter aus U.' für Instandsetzungsarbeiten an der Kaimauer von Assur verwendet (RIMA 1, 76.8, 30; auch in id. 7, 42 im Zusammenhang mit dem Aššur-Tempel). In einer anderen Inschrift steht, dass für den gleichen Bau „Kalkstein und Bitumenmörter" verwendet wurden (RIMA 1, 76.9, 13-14). Obwohl im letzten Fall kein Herkunftsort genannt wird, ist nach der parallelen Stelle gewiss U. gemeint. TAVO Karte B IV 10 u. 13 (Tall al-Ḥuwaiš); Helsinki Atlas, 10. 28 (Tall al-Ḥuwaiš)."

135 Parpola & Porter 2001: 28.

136 Forrer 1920: 105.

137 Kinnier Wilson & Mallowan 1972: 111.

138 Henceforth reedited as SAA 1 144.

139 Altaweel 2008: 44-45.

5.3 Textual evidence against the identification Tell Ḥuwaish = Ubase

We have seen that relatively few meaningful written sources exist on the city of Ubase. This toponym is not known from the documentation of the Old Babylonian or Old Assyrian period. Inhabitants of Ubase are mentioned in texts of the Middle Assyrian or Neo-Assyrian period, without this allowing any conclusions about the location of the city[140], but Ubase itself is not mentioned frequently.

Ubase was certainly located on the Tigris. Ṭab-šar-Aššur, the chief treasurer,[141] wrote to Sargon that his travelling party, which was following the river, coming from the "palace" had reached Ubase, where they were spending the night. The author announced his arrival for the following day and promised to have the transported cult objects brought to the temple of Aššur. This text, which obviously describes a journey down the Tigris from a Neo-Assyrian city of residence to Aššur, argues strongly against assuming Ubase only 15km upstream from Aššur, because otherwise one would certainly have tried to cover the short distance to Aššur on the same day.

Another text also argues for a greater distance from Ubase to Aššur. J. V. Kinnier Wilson quotes a letter, now SAA 1 144, whose sender needs reed:[142]

> "They shall speak to the governor of Kalhu; there is reed in the wadi of Ubase."

This shows on the one hand that Ubase was situated on a wadi. What is more interesting, however, is the fact that the reed cut in this wadi was in the hands of the governor of Kalhu, which makes an identification with Ḥuwaish, 15 km from Aššur on the western bank, not very likely but rather argues for a more northerly localization (Fig. 5).

5.4 The most important product: "Earth from Ubase"

If the city of Ubase itself is mentioned quite little, it is a product associated with this city that was obviously famous: *epru ša Ubasê* "earth, mortar from Ubase". This material is mentioned in the inscriptions of Adad-nerari I. Mortar from Ubase was used in various constructions, both in the renovation work on the Stepgate (RIMA 1 A.0.76.7) and on the renewed quai walls of Aššur (RIMA 1 A.0.76.8). The inscriptions say uniformly:[143]

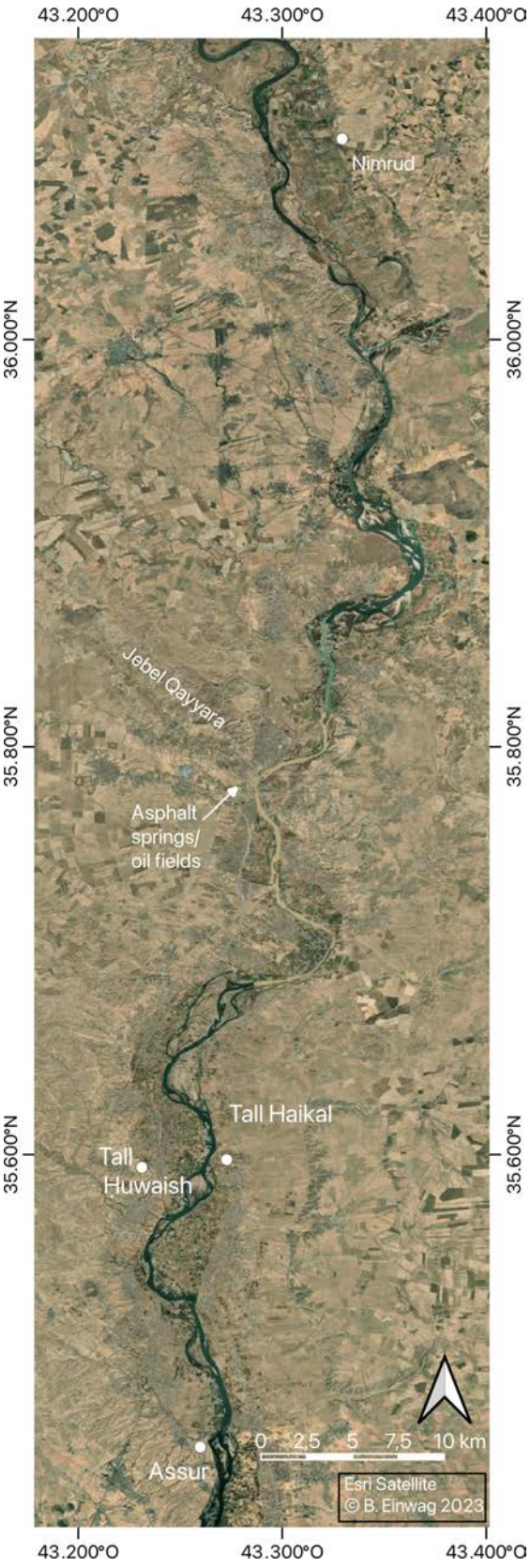

Fig. 5: The Tigris valley from Aššur to Kalhu with the modern oil fields / ancient asphalt springs near Qayyara (map B. Einwag based on ESRI satellite image 2023)

140 Neo-Assyrian: Bagg 2017: 620; SAA 14 397: r.12, list not complete.
141 Baker (ed.) 2011: 1344-1346 (PNA).
142 SAA 1 144 (= ABL 626): r.3-8. Translation Parpola 1987: 116.
143 Grayson 1987: 140-141: RIMA 1 A.0.76.8: 42.

"I built (it) with limestone and mortar from the city Ubase"

or more detailed for the renovation of the quai wall of Aššur:[144]

"I restored that facing (of the quay wall) with bitumen and baked brick (and) made it the thickness of 4 ½ bricks. I faced the back of it with limestone and mortar from the city Ubase and deposited my monumental inscription."

Walter Andrae excavated the broad fortification wall on the river bank of the Tigris in Aššur, which had been built under Adadnirari I. It was very solidly built of large stone blocks with a facing of burnt bricks. The mortar was asphalt or an asphalt-clay mixture. This material is essential for mortaring baked bricks on those walls that are supposed to be watertight and protective against the river.[145] Andrae found several encapsulations in the masonry of this wall along the river, in which foundation documents of Adadnirari I were kept describing the construction work.[146] They mention "earth from Ubase" as the building material. For this reason, Andrae concluded that "earth from Ubase" was an asphalt-like mortar[147] and suggested to identify Ubase with "Gajara", i.e. Qayyarah 30 km north of Aššur, because the nearest asphalt sources were located there.[148]

Julian Reade also shared W. Andrae's identification:[149]

"Tell Huwaish, on the right bank of the Tigris about 20 km. north of Ashur, is sometimes identified with Assyrian Ubase; see most recently Oates, *Studies in the Ancient History of Northern Iraq*, 59, n. 5. Ubase was a bitumen source, however, so probably near Qaiyara."

The identification as made by W. Andrae in 1913 is still convincing in our opinion. To this day, Qayyarah is an important source of mineral oil (Fig. 5). The asphalt outcrops here on the surface (Fig. 6). In Wikipedia (accessed December 2021) we read that up to 120,000 barrels are intended to raise per day, and that the reserves are considerable:[150]

"Qayyara Oil field in Qayyara subdistrict holds 800 million barrels of estimated reserves. The field was explored by British Oil Development Co. Ltd. in 1927, and production commenced during the 1930s. The extracted oil is very heavy sour crude (API gravity 15°) therefore the production was in small quantities."

However, the commercialisation of bitumen goes back to much earlier times. Muhammad Rashid al-Feel summarises medieval sources in his PhD:[151]

"Kayara is to the south of Mosul. It was, and still is, famous for its bitumen springs. According to Ibn Batutah who passed through Kayara on his journey and described these springs, the bitumen was taken to the neighbouring towns. Al-'Omari added that these springs brought in a large revenue to the Sultan."

Max von Oppenheim describes in his 1893 journey how the black-green colour of the asphalt spring polluted the flowing Tigris:[152]

„...rechts El Gijara („Asphaltquelle"), deren schwarzgrüne Farbe den Tigris noch eine Strecke hinab verunreinigt."

Where the Corona aerial photograph still shows open asphalt springs (and the modern industrial plants next to them) in 1968 (Fig. 6), current aerial photographs reveal extensive oil reservoirs.

Neither modern nor ancient aerial photographs show a conspicuous tell at the modern city of Qayyara west of the Tigris. However, it cannot be ruled out that today the modern city has completely built over a tell that was not very high. Another possibility is to look for the ancient site east of the Tigris, where – exactly opposite the oil wells – lies a not inconsiderable tell, the dating of which, however, is not certain. Therefore, due to the lack of systematic sur-

144 Grayson 1987: 140-141: RIMA 1 A.0.76.7: 29-31.

145 Andrae 1913: 149-150: "Sie [die Konstruktion Adadniraris I.] besteht aus einer 2 bis 5 m dicken Schichtung großer Semman-Kalksteinblöcke mit Asphaltmörtel, die an der Flußseite mit einer vier bis fünf Stein starken Verblendung aus gebrannten Ziegeln versehen ist.... Die Ziegel sind in recht gutem Verband in Lehm und Asphalt, an einigen Stellen auch nur in Asphalt- oder in Kiesasphaltmörtel verlegt. Ungefähr in den Mitten der Zähne... sind hin und wieder kleine Hohlräume vorgefunden worden... In ihnen waren die Tontafel-Bauurkunden der Ufermauer niedergelegt."

146 See above. The various exemplars of the text were edited as RIMA 1 A.0.76.7.

147 Andrae 1913: 152-153: "Von den gebrannten, ca. 31 x 18 cm großen, schön beschrifteten Tontafelurkunden Adadniraris I., die... in den „Kapseln" des Ziegelmauerwerkes niedergelegt gewesen sind, haben sich mehrere Stücke gefunden, davon eines in situ (s. S. 161). Der Hauptteil der Inschrift lehrt uns die beiden Grenzen der Ufermauer kennen, das Ea-Tor „oben" und das Tigris-Tor „unten"... Die Angabe, daß die Ziegelverkleidung 4 ½ Stein stark gemacht worden sei, stimmt, wie wir sahen, im allgemeinen mit dem Befund überein. Der kutalu aus Bruchsteinen und Erde von Ubasê muß die Hintermauerung aus Semman-Kalksteinblöcken in Asphaltmörtel sein. Wir gewinnen dadurch eine gesicherte Spezialbedeutung für kutalu = Hintermauerung und für êpru ša ^{ât}Ubasê = asphaltartiger Erde, die sich als Mörtel verwenden ließ. Die Stadt Ubasê dürfte in Gajara, 30 km nördlich von Assur, am Tigris, zu suchen sein, weil sich dort die nächsten Naphta- und Asphaltquellen befinden."

148 Andrae 1913: 153.

149 Reade 1978: 170 fn. 88.

150 https://en.wikipedia.org/wiki/Qayyarah_subdistrict.

151 Al-Feel 1965: 95 describes the bitumen sources based on historical sources of the Mongolian period. The text references can be found there.

152 Oppenheim 1900: 206.

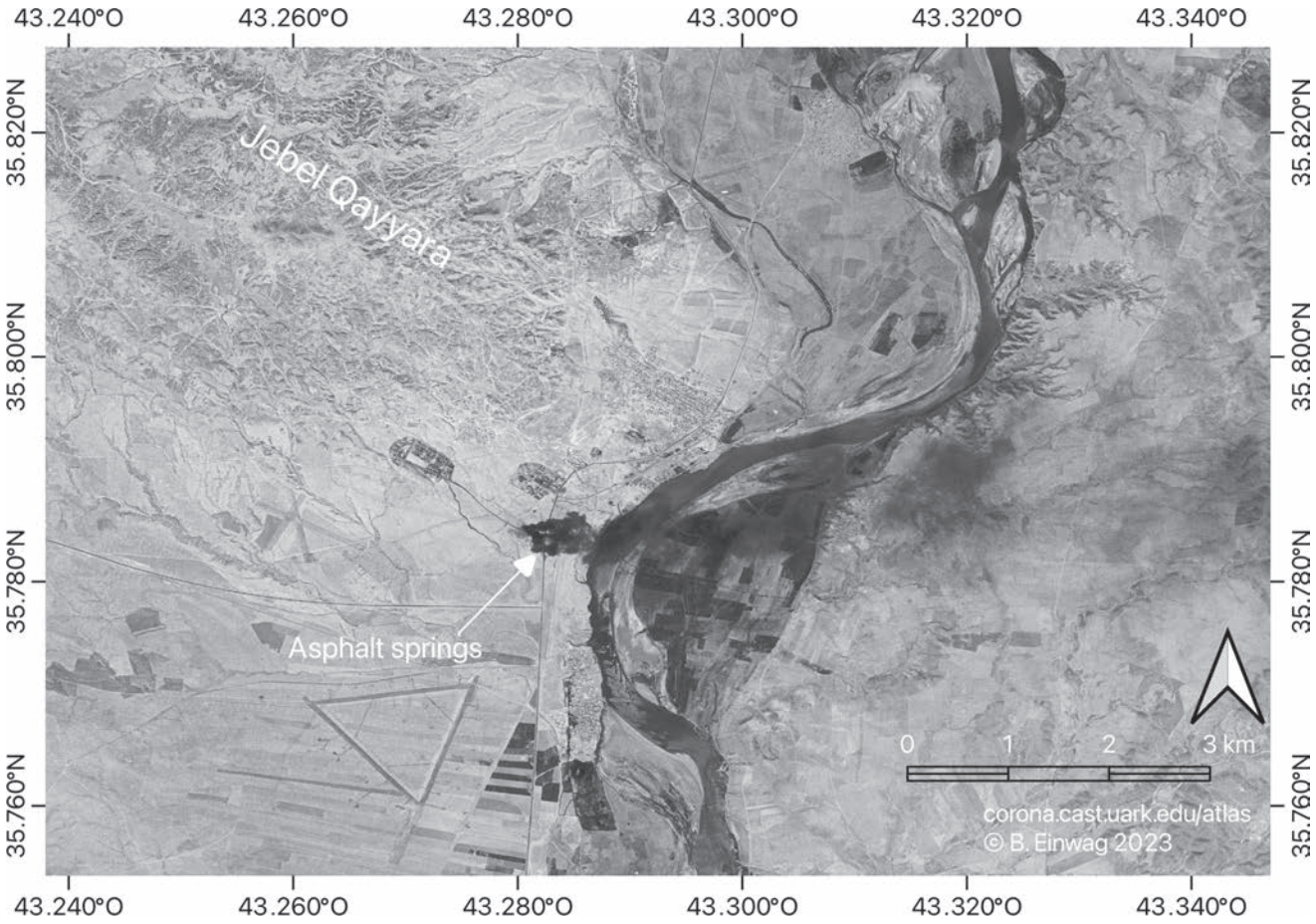

Fig. 6: Asphalt springs near Qayyara (Corona satellite image, August 16, 1968)

veys, it is currently not possible to suggest a specific tell for identification with Ubase, but the textual evidence argues against Ḥuwaish and for a proximity to Qayyara.

6. Arguments for the dating of Tell Ḥuwaish

6.1 Tell Ḥuwaish and Tell Haikal = two alternating settlements

The biggest problem for the reliable identification of Ekallatum with Tell Ḥuwaish was the until recently quite uncertain dating due to the lack of systematic survey or excavation. D. Oates mentioned the "considerable scatter of pottery, including post-Assyrian types"[153] as the only dating material in Ḥuwaish. M. Altaweel renders this as if Ḥuwaish had been settled exclusively in the first millennium:[154]

> "According to Oates, Tell Khuwaish was occupied in the Neo-Assyrian period and remained a town in the Persian period."

However, the text passages by D. Oates do not speak about a Neo-Assyrian occupation, but about post-Assyrian sherds among others, for which regrettably Oates mentions no date.

W. Bachmann remarked gravel pavements of possibly Neo-Assyrian houses as well as a brick fragment bearing an inscription mentioning the palace of a governor. All in all, a settlement of Ḥuwaish in the late Middle Assyrian, Neo-Assyrian and post-Assyrian periods seems to be assured. A dating in Islamic times seems to be ruled out, since this pottery can be easily recognised. The decisive

153 Oates 1968: 60.

154 Altaweel 2008: 44-45.

dating to the Middle Bronze Age was not archaeologically sound until recently (but see now § 6.2, 6.3).

Archaeological artefacts and even remains of a palace from the Middle Assyrian period are mentioned for Tell Haikal, as well as surface finds from the Parthian, Sasanian and Islamic periods, whereas a significant settlement in the Middle Bronze Age was explicitly excluded.

As already explained in § 4.1, we therefore propose that Tell Ḥuwaish and Tell Haikal were two corresponding cities on both sides of the Tigris at a ford, but that in the course of the millennia settlement at the edge of this fertile floodplain repeatedly shifted from one bank to the other. Sometimes (e.g. in the Neo-Assyrian period) there was probably simultaneous settlement on both river banks, as is obvious for bridgeheads at an important ford. The shift of settlement could have taken place over the millennia as follows:

Period	**Tell Ḥuwaish, archaeological remains**	**Tell Haikal, archaeological remains**	**Text references of Ekallatum / Ekallate / Ekalte**
Old Assyrian / Old Babylonian	**Yes**	**No**	**Yes**
Middle Assyrian	Yes	**Yes** (important, palace)	**Yes**
Neo-Assyrian	**Yes**	**Yes**	**Yes**
Post-Assyrian	**Yes**	?	No
Sasanian, Parthian	Probably yes	**Yes**	?
Islamic	No	**Yes**	?

Table 1: Shift in occupation of the corresponding settlements at Tell Ḥuwaish and Tell Haikal
(bold type denotes good quality of supporting evidence)

6.2 Recent archaeological evidence for dating Tell Ḥuwaish to the Middle Bronze Age

Torrential rains in the winter of 2018-2019 led to the exposure of numerous structures and objects on the steeply rising flank of Tell Ḥuwaish, especially at the top and southern edge of Citadel and Akropolis near the Wadi al-Jirnaf (see Fig. 3). The most meaningful structures in terms of dating are two corbel-vaulted chamber tombs from baked bricks which were washed free at the acropolis. The Iraqi colleagues from the SBAH, under direction of Salem Abdallah Ahmed, documented the tombs with the finds. They include numerous pottery vessels, a few bronze weapons, gold rings, carnelian and other beads, and more material that is a clear indication of the elite position of the deceased. The images of the tombs and their inventories were made available to us thanks to the courtesy of SBAH, but they cannot be illustrated here.

These particularly richly furnished graves can be dated with certainty to the Middle Bronze Age I/II. The pottery includes small pots, beakers and bowls, some of them are painted Habur ware. Especially well datable are flat plates with wide, horizontal rims, finding particularly good parallels in the palace at Mari, dated to Šamši-Adad or Zimri-Lim, and in the palace of Yasmah-Adad at Tuttul.[155] As there has been no real publication of the Tell Ḥuwaish tomb to date and the objects have only been made publicly available on Facebook, we rely on these preliminary informations. The location of the tombs high up on the Akropolis is a clear proof that even the higher parts of the mound date to the early 2nd millennium.

The second proof for dating the site to the Middle Bronze Age, comes from a recent visit. We are particularly grateful to Salim Abdallah Ahmed and Nicolò Marchetti for sharing with us the following results of their short visit in January 2022 and for providing us with recent images of the mound (Figs. 7 and 8). S. A. Ahmed and N. Marchetti documented the earthen ramparts in the north and northwest, remarked 2nd millennium BC sherds on the surface of the lower town, and Neo-Assyrian sherds and a brick with an inscription by Shalmanesar III. on the citadel, which is separated from the lower town by a gate well visible on the surface. Additionally, the remains of a buttressed mudbrick wall surrounding the citadel, probably also of Neo-Assyrian date, testifies for the continuous use of the more elevated parts of the city in the first millennium, while the original layout of the city, including the lower town ramparts and perhaps also the citadel fortification walls, seems to go back to Old Babylonian times, or may date even earlier (see § 6.3.).[156]

6.3 Comparison of the morphology and size of Tell Ḥuwaish with other Middle Bronze Age towns of North Mesopotamia

The attempts to tentatively date settlements based on the comparison of their size, structure and morphology only on the basis of aerial photographs (Fig. 9) may seem auda-

155 For comparable plates from Mari see Parrot 1959: 129-130, pl. XXXV. 890 and 1328. For comparable plates from Yasmah-Adad's palace at Tuttul see Einwag 1998: 92-95, types 46-52.

156 We would like to thank Nicolò Marchetti and Salim Abdallah Ahmed for providing us with many photos and information in advance for the presentation of our research at the 66th *Rencontre Assyriologique Internationale* in Mainz in July 2022.

Fig. 7: Citadel and lower town of Tell Ḥuwaish. Aerial photo January 2022 (copyright N. Marchetti & S. A. Ahmed)

Fig. 8: The city wall and the northern city gate. Photo January 2022 (copyright N. Marchetti & S. A. Ahmed)

cious, but this method can be applied with success especially in the Near East.[157] It is an especially useful method in a case like the one here, where no archaeological excavations have been carried out and where no surface pottery has been published so far.

Size is the first relevant indicator. If the size of Tell Ḥuwaish is compared with the size of confirmed capitals of the Old Babylonian or Old Assyrian period, Ḥuwaish's outstanding position becomes clear (Fig. 9: all cities illustrated at the same scale). An analysis of the satellite images reveals a size of Tell Ḥuwaish of about 108 ha and a circumference of about 4.5 km. This makes it larger than the walled residential area of Qal'at Sherqat / Aššur, which in the Old Assyrian period was about 40-55 ha with a circumference of about 3.1 km.[158] Tell Leilan, the ancient Šehna, which was developed by Šamši-Adad into his residential town and renamed Šubat-Enlil, covers about 90 ha, with a circumference of about 3.4 km.[159] Tell Rimah, the town of Qaṭṭara also developed by Šamši-Adad, is smaller at about 38 ha.[160] It is located 110 km northwest of Tell Ḥuwaish, about halfway on one of the ancient routes to Šehna.

Structure and morphology are further important indicators. A characteristic feature of Tell Ḥuwaish is its division into a lower city and an elevated citadel with additional acropolis which are set off from the urban area. Another striking feature is the shape of the mighty city wall. It is not oval or circular and follows a regular line, but is polygonal and divided into individual segments: the wall sections are either straight, concave or convex, and they abut each other in an angular arrangement.

Both features can be found in other Middle Bronze Age cities of the region. Both Tell Rimah / Qaṭṭara and Tell Leilan / Šubat-Enlil / Šehna show similar city walls which are arranged in angular or concave segments. Tell Rimah is smaller than Ḥuwaish, but has a prominent citadel comprising among other features a temple and the palace. Only the central mound goes back "at least another 3000 years", while the hexagonal city wall, c. 600m in diamater and clearly visible on the ground and from the air, was—according to the excavators—the work of Šamši-Adad and had its fortificatory function only during the Old Babylonian occupation.[161]

The city wall in Leilan, on the other hand, was certainly built in the third millennium. However, it is not certain whether the city wall was already built in its segmented form at that time, because it had to be fundamentally restored in the Old Babylonian period after it had suffered damage during the long hiatus in settlement history, as the excavations have shown.[162] The polygonal form could therefore either date back to the 3rd millennium, or it developed in the course of the restoration work. Tell Leilan is particularly similar to Tell Ḥuwaish in size and the overall urban structure: the citadel with temples and public buildings also has an elongated oval shape and is located near the western edge of the city. The large lower city contains also a palace of Šamši-Adad.[163] By analogy with Tell Leilan, we can hypothesise for Tell Ḥuwaish that temples and at least one palace existed on the citadel and acropolis.

We assume that either the segmented type of city wall dates back to the 3rd millennium in Tell Ḥuwaish and other North Mesopotamian cities and continued to be used in the early 2nd millennium, or that the polygonal, strategically ideal shape was adopted by Šamši-Adad and applied to the fortifications of his main cities. As D. Oates already remarked 40 years ago, the polygonal layout of several North Mesopotamian cities dates to the late 3rd or early 2nd millennium, but is not attested in later periods—another argument for dating Tell Ḥuwaish to the Middle Bronze Age.[164]

The urban structure of Aššur, going back to the 3rd and 2nd millennium, also has certain similarities with Tell Ḥuwaish as concerns the strategically ideal situation on a triangular mountain spur high above the Tigris, laid out in the spandrel between the river valley and the side arm.

In sum, the location, size and morphology of Tell Ḥuwaish point to its origin in the late 3rd or early 2nd millennium and make it an ideal candidate for a powerful Middle Bronze Age capital.

7. Conclusion

If we take all the above evidence and arguments together—philological, archaeological and theoretical—the identification of Ekallatum with Tell Ḥuwaish about 16 km north of Aššur on the western bank of the Tigris is by far the most probable.

The arguments in numerous textual sources on Ekallatum are very clear, but the archaeological evidence is now

157 Wilkinson 2003; Casana 2020.

158 Old Assyrian Aššur was about 40 ha and had about 6000 inhabitants according to estimates by Dercksen 2004: 156.

159 Tell Lailan (Hig. No. 83); Weiss *et al*. 1990.

160 For Tell Rimah (Hig. No. 101) cf. Oates 1982; Postgate, Oates & Oates 1997. Bibliography for the identification with ancient Qaṭṭara in Ziegler & Langois 2016: 271-273.

161 Oates 1985: 587-588.

162 Ristvet 2007; Oates 1985: 590.

163 Weiss *et al*. 1990.

164 Oates 1985.

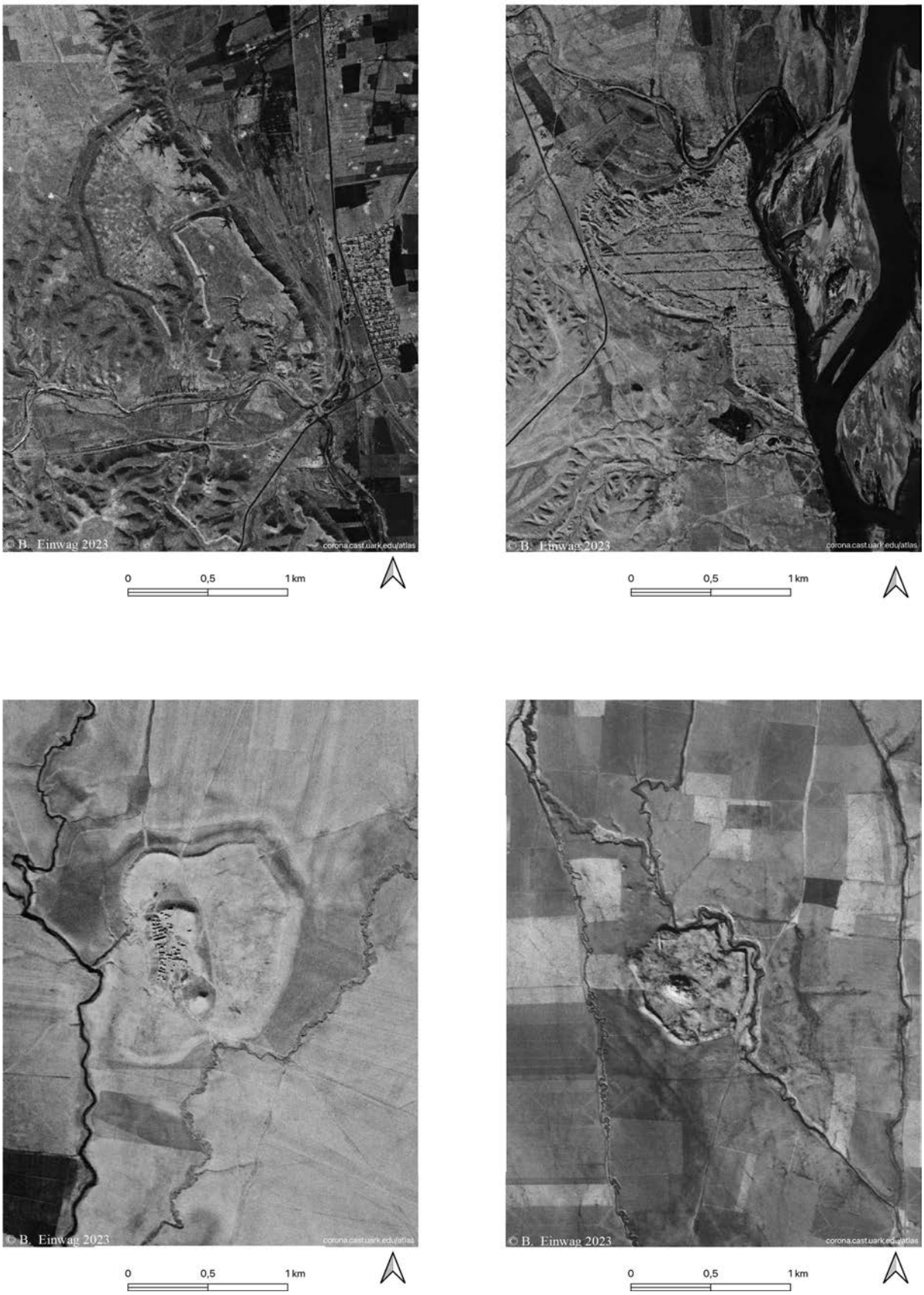

Fig. 9: Shape, size and urban structure of Tell Ḥuwaish, Qal'at Sherqat, Tell Leilan and Tell Rimah in comparison (map B. Einwag on Corona base maps from 1967 and 1968)

also conclusive, both with regard to its location on a plateau ideal for fortification and with regard to its considerable size. Another weighty argument is the morphology of Tell Ḥuwaish, which points to its origin in the late 3rd or early 2nd millennium and shows structural similarity to other cities that Šamši-Adad had built or expanded, such as Šubat-Enlil / Tell Leilan and Qaṭṭara / Tell Rimah. The structure of Tell Ḥuwaish thus corresponds to what might be expected of a capital of Šamši-Adad's time, namely a strongly fortified large city, ideally situated at a large river, consisting of a lower town and the elevated citadel housing probably temples and the royal headquarter.

Another argument is the long-distance road starting at the north-western city gate and leading NNW towards the Sinjar and Habur area. There is much to be said for seeing this as the Neo-Assyrian King's Road, which was already a main route from Aššur to the north in Old Babylonian / Old Assyrian times.

The arguments put forward earlier for the localisation south of Aššur are no longer tenable. But the identification with Tell Haikal on the east bank is also invalid for many reasons, especially since Ekallatum must have been on the west bank of the Tigris due to the textual sources, and because Tall Haikal shows no material remains of the 2nd millennium.

However, since one of the few Tigris fords exists between Ḥuwaish on the west bank and Haikal on the east bank, we do not exclude the possibility that the name Haikal, which has noticeable similarities to Ekallatum, could also have migrated with a shift in settlement (see above, Table 1). The earlier identification of Tell Ḥuwaish with ancient Ubase is no longer valid either, since this toponym is associated with asphalt springs that still exist today further north at Qayyara, which is why Ubase must be searched for there.

When we began to write this article, the archaeological considerations were purely theoretical. There was no concrete positive evidence from the archaeological side for a date in the Middle Bronze Age, as previous surveys had never presented the surface finds and had only cited a few finds from the Neo-Assyrian and post-Assyrian periods. We are all the happier that, thanks to the recent fortuitous finds of Old Babylonian elite tombs on the flank of the Acropolis, and thanks to the recent inspection by S. A. Ahmed and N. Marchetti in 2022, the occupation of the mound in the Middle Bronze Age has been secured beyond doubt and is just waiting for a thorough archaeological investigation in the future. All arguments taken together undoubtedly speak for the identification of Tell Ḥuwaish with Ekallatum.

Abreviations

ARM 26/1	see Durand 1988.
ARM 26/2	see Charpin, Joannès, Lackenbacher & Lafont 1988.
ARM 28	see Kupper 1998.
ARM 33	see Durand 2019.
FM 8	see Durand 2005.
MTT I/1	see Ziegler & Langlois 2016.
MTT II/2	see Cancik-Kirschbaum & Hess 2016.
MTT II/2	see Cancik-Kirschbaum & Hess 2022.
Daduša Stele	see Ismail & Cavignaux 2003.
RIMA 1	see Grayson 1987.
RINAP 3/2	see Grayson & Novotny 2014.
SAA 1	see Parpola 1987.
SAA 12	see Kataja & Whiting 1995.
SAA 14	see Mattila 2002.

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