Intimacy/integrity: a framework for thinking about epistemological styles in design activity

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Abstract

Design research has established several dichotomies around styles of knowing and thinking, such as 'thinking vs. doing' (e.g., Bagchi, 2020), 'intuitive vs. deliberate" (e.g., Schaathun, 2022; Jones, 1992), or 'rational problem solving vs. reflective practice' (e.g., Dorst, 1997). In this paper, the authors explore and integrate these dichotomies using the 'intimacy/integrity' framework proposed by Kasulis (2002). The 'intimacy' and 'integrity' pair is presented as a heuristic device that can help us characterize two broad ways people develop and present arguments, generate knowledge, establish values, and even develop a metaphysics. An integrity orientation separates object and subject, and knowledge is objective and verifiable. In contrast, an intimacy orientation blurs the line between object and subject, and the self is relational. In an integrity framework, the knower and the known (whether a thing or another being) have each an individual, well-delineated identity, while in the intimacy orientation knower and known (the self and the other) are interdependent and intertwined with one another, and can't be seen as separated units. The paper centrally argues that his framework serves to examine alternative individual styles of thinking in design practice. Furthermore, the authors posit that Kasulis' framework is a useful lens to examine design theory and methodology and can enrich ongoing debates. In particular, the paper explores the aforementioned dichotomies to show they can be advantageously subsumed into Kasulis' conceptual apparatus, which is more overarching and has greater explanatory power.

Author keywords

Epistemological difference, ethics, intuition, rationality, problem-solving.

Introduction

Several interrelated dichotomies around styles of knowing and thinking in design activity have been established in the field of scholarly design research over the years, such as 'rational problem solving vs. reflective practice' (e.g., Dorst, 1997). In this paper, we engage with these dichotomies through the lens of a framework for conceptualising different styles of knowing and thinking proposed by philosopher Thomas Kasulis (2002). This framework, itself a heuristic device, gravitates around two central notions: those of 'intimacy' and 'integrity', which characterise two broad cultural orientations in the way people develop and present arguments, generate knowledge, establish values, and even develop a metaphysics.

Building on an analysis of well-known dichotomies, we posit that Kasulis's heuristic framework is a useful lens to examine design reasoning. We are of the view that the 'intimacy-integrity' perspective can extend and enrich ongoing professional and academic debates and perspectives on epistemological diversity in design activity. What's more, we argue that Kasulis' conceptual apparatus serves to subsume frequent terminology ('intuition', 'rationality', 'doing', etc.) into a richer and more overarching heuristic that has greater explanatory power than the traditional opposites we are familiar with in design research and practice. It is, however, not our intention to argue that either of these terms and taxonomies is wrong or false. All of them have explanatory power and have proven to be useful to advance design theory and methodology. Our claim is simply that the integrity/intimacy framework encapsulates and links many of these.

The content of the paper proceeds as follows. In the next section, we introduce and briefly discuss three conflicting perspectives—i.e., dichotomies—for conceptualising design activity. This section is followed by an overview of Kasulis' framework. Together, the dichotomies and Kasulis' framework serve as a springboard for the constructive argument we'll develop in the Discussion section. We close with a general conclusion.

Dichotomies in design

We will concentrate on three well-discussed dichotomies: 'thinking vs. doing' (e.g., Bagchi, 2020), 'intuitive vs. deliberate" (e.g., Schaathun, 2022; Jones, 1992), and 'rational problem solving vs. reflective practice' (e.g., Dorst, 1997). These are particular lenses through which different styles of knowing and thinking are often approached and studied. They are the result of different normative and descriptive perspectives on the design process and design activity.

Furthermore, because they are directly linked to deep-seated ways of understanding what design *is*, they are still enormously popular and part of the professional and scholarly design vocabulary. Nonetheless, their putative conflicting nature has also been challenged in recent years (see e.g., Schaathun, 2022; Guersenzvaig, 2015). Before we attempt to present Kasulis' framework as a suitable alternative; i.e., a richer way of conceptualising different styles of knowing and thinking in design, we will briefly introduce these perspectives.

Thinking vs doing

One dichotomy we frequently encounter is an elementary one: the distinction between thinking and doing, in which these activities are conceptualised as distinct modes of knowing and acting.

'Thinking', in the context of this dichotomy, has a meaning akin to 'reasoning', involving the contemplating, examining and evaluating that are classically involved in analytical problem-solving:

> You're a [design] thinker if you like understanding every aspect of the problem statement, solving it in the abstract confines of your mind before you even put pen to paper. People know you for being thoughtful, precise and consistent (Bagchi, 2020).

On the other hand, 'doing' is a portmanteau term for imagining and shaping activities *as a way* to solve and explore problems without the need for a preceding full-blown problem definition. Thus, as a design doer:

> You love solving problems and believe in rapid iterations. People know you for making decisions and moving quickly. You're known for being adaptable and tactical. [...] You're not afraid to be scrappy and find quick ways to test your ideas (Bagchi, 2020).

The distinction between thinking and doing, however, is as helpful as problematic. Bryan Lawson (2006, p. 137), although using a somewhat different vocabulary, questions it here:

> If reasoning and imagining were truly independent categories of thought, one should not be able to speak sensibly of 'creative problem-solving' or a 'logical artistic development', which are both quite meaningful concepts.

We follow Lawson in that 'thinking' and 'doing' are just different epistemological styles employed by designers, not monolithic and exclusionary descriptions of personality types. Rather, these modes are alternative—though interrelated, as we shall see—styles of knowing, reasoning, and acting. Claiming that no designer exclusively employs one single epistemological style is an uncontroversial statement, as modal shifts between, for instance, drawing and evaluating have been consistently shown in design research since the mid-nineties (see e.g. Cross, Christiaans and Dorst, 1994; Akin and Lin, 1996). What's more, one of the most crucial findings in design research is that given the nature of design problems, the designer is in most cases unable to move linearly from problem to solution precisely because these entities co-evolve. These modal shifts obey the logic of the constructivist task of co-defining problem and solution (see e.g., Dorst, 2017, pp. 21, 24, 25, 28, 71).

Despite all this, the dichotomy between thinking and doing is persistent and ubiquitous in design activity. Plausibly, it might be even constitutive of the Western way of understanding knowledge itself, as it was no one less than Aristotle, who famously divided knowledge into *theoria* (Greek for theoretical knowledge), *praxis* (practical knowledge), and *poiēsis* (productive knowledge) (*Meta* 1025b 25). Hence its inclusion in this list.

Intuitive vs. deliberate processes

Another frequent dichotomy is the distinction between 'intuitive' and 'deliberate processes'. We find a canonical instantiation of the dichotomy in the classification of designers as 'black boxes' and 'glass boxes' made by John Chris Jones (1992).

On the black box extreme, Jones describes the designer as a kind of magician whose mind performs mysterious creative leaps that produce a result through an unknowable process. According to Jones (1992, p. 46), for the defenders of this view: '[the designer] is capable of producing outputs in which he has confidence, and which often succeed, without his being able to say how these outputs were obtained.'

The black box view of designing is anchored on common definitional features of intuition. Herbert Simon (1992, p.13) highlights the (at least partial) lack of awareness that, in line with black box design, is characteristic of intuition: 'a performance that is speedy and for which the expert is unable to describe in detail the reasoning or other process that produced the answer.' Intuition is more a category than a homogeneous cognitive process and there is both agreement and controversy about what intuition is. Glöckner & Witteman (2010, pp. 5-6) find common ground between alternative views:

> Intuition is based on automatic processes that rely on knowledge structures that are acquired by (different kinds of) learning. They operate at least partially without people's awareness and result in feelings, signals, or interpretations.

The intuitive 'black box' perspective can be contrasted to the deliberate, conscious processes that are characteristic of 'glass box' designing. The designer as a Glass Box operates computationally to produce an optimal result. In this view, designers carry out a perfectly discernible design process which is transparent, hence the glass, and it can be rationally explained. A canonical sequential process (see e.g., Cross, 2008) is structured around at least three clear stages: (1) a stage of analysis consisting of a list of requirements and a performance specification, (2) a stage of synthesis consisting in finding solutions for every performance specification, and (3) evaluating these solutions according to various criteria (e.g. cost-effectiveness, ease of use, commercial impact, etc.). The characteristics of these models are: (1) objectives and criteria are fixed in advance, (2) analysis is completed before solutions are sought, (3) evaluation is logical (not empirical), and (4) strategies are fixed in advance (Jones, 1992). An early example of a deliberate process is the systematic model of design proposed by Archer in 1965 and a more recent example is the one proposed by Pahl & Beitz in 1999 (see Jones 2008, pp. 34-41).

Granted, these are just two models of design activity and many other models do not proceed linearly from problem to solution but highlight the co-evolution of the problem-solution pair (Dorst, 2017, p. 21). However, the logical linearity embedded in the 'glass box' methods has been for decades hailed as a standard even in process models that are purportedly iterative and less rationalistic than the classic ones—think of the all ubiquitous 'Double Diamond' model of design (Ball, 2019).

Paradigms of rational problem-solving vs. reflective practice

We based this dichotomy on a distinction made by Dorst (1997), in which design methods can be seen to belong to either one of two paradigmatic perspectives on design:

1 The paradigm of design as rational problem solving
2 The paradigm of design as reflective practice

Let's consider the first paradigm. In line with 'The Sciences of the Artificial' (Simon, 1996 [1969]), the most influential work within this paradigm, design can be understood as a rational search process: the designer defines the problem space that has to be examined in search of a satisfactory solution. This paradigm is registered within a positivist outlook on science with a strong emphasis on rigour: objective observation and logical analysis must lead to general formal models of the design process. The *rationalistic,* deliberate models and methods discussed above can be assigned to this paradigm. While more could be said about it, due to space reasons we switch to the other part of the dichotomy.[1]

The publication of 'The Reflective Practitioner' (Schön, 1983) marks a point of inflexion in design methodology whereby early rationalistic methods are superseded by the paradigm of the designer as a *reflective practitioner*, in which the design process can be seen as a reflective conversation with the situation. This paradigm views design as inherently argumentative and constructivist, in the words of Schön (1983, p.79):

> Because of [...] complexity, the designer's moves tend, happily or unhappily, to produce consequences other than those intended. When this happens, the designer may take account of the unintended changes he has made in the situation by forming new appreciations and understanding and by making new moves. He shapes the situation in accordance with his initial appreciation of it, the situation 'talks back', and he responds to the situation's back-talk.
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> In a good process of design, this conversation with the situation is reflective. In answer to the situation's back-talk, the designer reflects-in-action on the construction of the problem, the strategies of action, or the model of the phenomena, which have been implicit in his moves.

The reflective turn moves the designer away from technical rationality and thus from the separation of knowing from doing. It fully positions the designer in a situated rationality of reflection *in practice*. Schön highlights alternative epistemic styles other than applying general principles and standard scientific knowledge to dealing with ill-defined problems. This new stage in methodology and epistemology 'tried to embrace a wide range of issues (poetical, rhetorical, phenomenological, hermeneutical, and ethical) in order to obtain greater insights and an improved understanding of the design phenomenon' (Bousbaci, p. 39).[2]

The paradigm of design as a reflective practice is a constructionist epistemology, where means and ends are inevitably intertwined. Knowledge is often tacit and situated in a practice. It is thus a radically different paradigm that arises in reaction to the rationalist paradigm. For Dorst (1997, p.70), in 'reflective practice design tasks may be analysed and subdivided in a number of different ways, and there is no a priori way to determine which approach will be the more fruitful. Therefore, design task and solution are always and inherently developed together.'

As Dorst argues, both paradigms are useful in approaching different design problems and each of them can be applied to one of the two fundamental classes of design activities:

1 *Objective interpretation* activities in which the interpretations of design or solution are based on an impression caused by something beyond the designer, which prints meaning on the subject. In this case, the designer behaves according to the rational problem-solving paradigm.

2 Activities that suggest *subjective interpretation* or the modification of the design tasks print meaning or value on it—Schön (1984) calls it framing; i.e., a particular way to perceive a design situation. In this case, it is the subject that prints meaning on something. These kinds of activities can be better addressed from the paradigm of reflective practice.

To Schaathun (2022), Simon and Schön have more in common than suggested. Namely, they share the view that practical reason is indispensable to deal with real-world problems. However, one important difference remains. Unlike Simon, Schön invokes a distinctly human power to *see-as* for goal setting; i.e., for figuring out what to do in terms of being a human individual, in a way that is different from the prevailing scientific paradigm.

Mapping dichotomies: the 'generation game' in design methodology

Design's methodological and epistemological developments since the 1960s are discussed in a historical timeline called the 'generation game' (Cross, 1981; Bousbaci, 2008). The 'generation game' illustrates the profound changes that occurred in design methodology from the first generation of rationalistic design methods, at one extreme of the timeline, to the reflective turn at the other extreme.

We believe the dichotomies we explored above come back as conceptual building blocks in this well-known historical timeline. The dichotomous terminology can be mapped onto this timeline rather neatly. Consider, for instance, Bousbaci's (2008, p. 38) description of the origin of the first-generation design methods in terms of 'a strong reaction against the intuitive, artistic, and 'beaux-arts" vision of the design process [in favour of a] very logical, systematic, and rationalist view of design activities'.

Along these lines and using the terminology from the dichotomies, first-generation methods could be characterised as thinking-centred, deliberate, rational problem-solving, with the glass-box as a model for the designer. There's a caveat, we can see that to obtain a rich description we need to interlace terminology from several dichotomies. More needs to be said about this but we will expand on these themes later through the integrity-intimacy lens. First, we need to introduce Kasulis' framework in the next section.

The integrity/intimacy framework

Originally, Kasulis's intimacy versus integrity framework is presented as a way of understanding and analysing cultural differences in styles of generating, validating and transmitting knowledge. According to this framework, cultures, relationships and thinking models can be characterised as either emphasising

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1 Simon made profound changes to his own theory in the third edition of his influential book in 1996, conceding that due to their limited cognitive capabilities, humans cannot oversee all aspects of a problem, which invalidates the early methods to a certain extent due to their psychological implausibility.

2 Due to space reasons, we take no issue with establishing whether more recent streams in design research and practice such as 'Speculative design' (e.g., Dunne & Raby, 2013) or 'Design for the pluriverse' (e.g., Escobar, 2018) are part of the reflective turn, an evolution thereof, or something new altogether. We believe that for the purposes of this paper, answering this question isn't necessary.

intimacy or integrity.[3] Even though Kasulis is more interested in comparative philosophy (i.e., comparing cultures and geographies), we believe his framework serves also to examine alternative individual styles of thinking, which also manifest within a given subculture or practice, such as design practice.

Intimacy

Kasulis characterises 'intimacy' as making known to a close friend what is innermost (Kasulis 2002, p. 42). Intimacy-oriented cultures place a high value on emotional connections and personal relationships, to create a feeling of belonging-with. According to Kasulis (2002, p 46), the main characteristics of an intimacy mindset are:

1   Intimacy is objective but it is personal, not public.
2   Within an intimate relationship, self and other are connected in a way that it is not easy to distinguish them.
3   Intimate knowledge has an emotional, affective dimension.
4   Because of such an emotional dimension, besides being a psychological state, intimacy is also somatic.
5   In general, the ground of intimacy is not self-conscious, reflective or self-illuminating.

When these five characteristics are present, the subject will build a feeling of belonging with the situation they are in. Intimate knowledge is therefore extensive as well as intensive: someone knows something intimately if that knowledge is key for them; i.e., if it is part of their definition as a person.

A relevant process of learning within an intimacy framework is empathic imagination. According to Kasulis, this is a learning-by-imitation process, in a non-discursive way. This imitation process does not relate only to a mechanical level of know-how, but it implies putting on the teacher's shoes, imagining how the teacher thinks, feels and acts, and then putting all this into practice, learning by doing, without following a specific model. (Kasulis 2002, pp. 54, 58)

This implies that knowledge is transmitted in an esoteric manner. That is, key aspects of knowledge are only accessible to insiders, who have practised for several years, and that knowledge cannot be transmitted in a public manner, even if one states all the steps logically (Kasulis 2002, p. 62).

Integrity

Integrity is understood as the ability to remain whole, in one piece. It is the ability to have an autonomous identity that is not influenced or corrupted by whatever is outside (Kasulis, 2002, p. 67). The main characteristics that define integrity are the following (Kasulis, 2002, pp. 70-79):

1   Integrity is impersonal. Knowledge should be established objectively, independently of the individuals that generate or test it. Evidence should speak for itself, and subjectivities are irrelevant.
2   Integrity establishes a 'belonging to' type of relationship. That is, if A and B establish a relationship between them, they both belong to such a relationship, but they remain the same in essence. The fact of belonging to such a relationship doesn't change them.
3   Integrity is purely intellectual. Emotions are irrelevant,

or even worse, counterproductive. One should mistrust emotions and be guided just by reason if one wants to find out the truth
4   Integrity leads to pure conceptual knowledge. That means that any somatic component is suspicious and should be eliminated. That implies that knowledge is exoteric, public and accessible to everyone, without the need for years of practice to reach the expert state.
5   Integrity is bright and clear. Knowledge is accessible to everybody if they apply their intellect and reason to find the truth, so it is self-illuminating.

Discussion: Integrity and intimacy in design research

In this section, we will present two examples of how the integrity/intimacy pair could be used to discuss and analyse design methodology and epistemology. In the first example, we will try to show that the framework could be used *instead* of the dichotomous vocabulary that is already used in discussions of design methodology. In the second example, we will attempt to use intimacy and integrity in an altogether *different* and quite *unrelated* discussion (design negotiations). If our descriptions are cogent, then we will have succeeded in showing the strong descriptive and explanatory capacities of the intimacy/integrity framework.

The generation game: from integrity to intimacy

As we mentioned earlier, the dichotomies are insufficient when used individually—in the sense that they need to be interlaced with one another to produce rich descriptions of design broad phenomena. The integrity/intimacy framework solves this by offering an overarching terminological approach. To illustrate the potential of Kasulis' framework, we will augment the 'generation game' conceptual apparatus by using the intimacy/integrity pair as an overarching and integrative approach *instead* of using more fragmentary dichotomous terminology.

We find Integrity at the foundation of the first generation of design methods, which were a reaction against the artistic and *ad hoc* design methods that were in use before 1960. The new methods proposed variations of scientific, logical models of the design process, anchored in a view of unlimited rationality. These models would release the designer from their bonds with the traditions from the past and idiosyncratic, arbitrary decision-making. This is directly related to an integrity-centred conception of what can count as a legitimate basis for knowledge. The dominant orientation in Western thinking has to do with the expectation of supporting assertions with evidence so that everyone can investigate for themself. Truth is thus underwood as something others can verify. Unbeknownst to the early methodologists, everything in their methods was guided by integrity reasoning.

The second and third-generation design methods moved away from this ambition of modelling an omniscient designer with unlimited rationality and a transparent and complete process of design activity that characterised the first-generation methods. During these years (the 1970s and early 1980s), we see moves towards intimacy and a growing rejection of integ-

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3   The locus of Kasulis' framework is cultural differences across the world. Yet, while it highlights cultural differences (especially detectable when comparing Asian and Western thought), it does not in the least suggest that different cultures are monolithic and unchangeable nor perfectly demarcated. Rather, Kasulis shows how particular facets of human experience are emphasised in some settings, while others are placed in a secondary role. So, in every culture, we can find instances of both intimacy and integrity.

rity. For instance, consider Alexander's famous rejection of the Design Methods Movement ('I would say forget it, forget the whole thing') (cited in Cross, 1981, p. 3) and Rittel's proposal for participatory and argumentative methods (Cross, 1981; Bousbaci, 2008, p. 38).

Another important move towards intimacy is the 'primary-generator model' proposed by Jane Darke (1979), which draws not on the integrity of rational analysis as a starting point of the design process but on a profoundly personal conjecture that blurs the separation between analysis and synthesis. This model famously describes how empirical, situated, and expert knowledge are intertwined to yield that type of knowledge Kasulis has characterised as *intimate*. Because of design's intractability, an initial, subjective narrowing down and framing occurs when early ideas or organising principles define the boundaries of the problem space and suggest the nature of its possible solution.

Yet, integrity was far from gone. Despite a manifest recognition of the complexity and intractability of design problems, second and third-generation methodologists still maintained the view of design as an essentially problem-solving activity, all of which entails 'some shared beliefs in a certain degree of rationality, logics, and objectivity which fundamentally characterise the design process' (Bousbaci, 2008, p. 41).

Because of their complexity, design problems or briefs can seldom be solved simply by examining requirements and processing information mechanically in a detached manner. Integrity is insufficient. Arguably, the very failure of the early design methods was due to erroneous premises centred on integrity. Design problems are not to be taken as a given but actually start with a particular action of framing (Kolko, 2010), in which subjective interpretation is a fundamental aspect of sensemaking and synthesis; that is, intimacy.

Does this mean we go back to viewing the designer's mind as a black box? To the 'beaux-arts' vision of the design process? Not at all.

Intimacy doesn't reject or exclude the possibility of 'objective' knowledge, it just accepts that a legitimate basis for making claims about certain aspects of reality needn't be necessarily publicly verifiable (Kasulis 2002, p. 33). Objectivity is preserved by reconsidering it; while an Integrity mindset understands objectivity as publicly verifiable knowledge that is based on hard facts that can be computed (i.e., the glass box model), an intimate form of knowing, even without publicly verifiable knowledge, retains objectivity in a substantive sense (the designer as a reflective practicer). Kasulis (2002, pp. 35-36) writes that intimate knowledge's objectivity:

is accessible only to those within the appropriate intimate locus, those who have achieved their expert knowledge through years of practical experience. Trust in intimate knowledge's objectivity, like that in positivistic knowledge's objectivity, relies on an assumption of universality, but this universality has a somewhat different formulation.

The key aspect here is that knowledge that is acquired 'through years of practical experience' becomes a legitimate source, regardless of its verifiability. This, of course, aligns with the Schönian perspective of reflective practice and other scholarly work on design expertise (Lawson & Dorst, 2009).

A short detour before proceeding to the next subsection. The orientations of intimacy and integrity can also be applied to

analyse the creation of the very models of design we formulate as design methodologists, which are the main characters in the 'generation game'. But what are models? A model is a representation of a phenomenon; i.e., a fact or situation that is observed, inferred or assumed to exist or happen. For Frigg and Hartmann (2020):

Models can perform two fundamentally different representational functions. On the one hand, a model can be a representation of a selected part of the world (the 'target system'). [...] On the other hand, a model can represent a theory in the sense that it interprets the laws and axioms of that theory.

Any model necessarily embodies a particular way of understanding and framing phenomena. In other words, they are grounded on particular styles of knowing and thinking. From an intimacy mindset we get different models than when approaching an issue from an integrity perspective. Both the black box and the glass box models we referred to above are Aristotelian idealisations; i.e., simplifications aiming at making reality more tractable. The model maker only models those and only those properties that they have reason to believe are relevant to the problem at hand. We believe that Kasulis's apparatus serves well to explain how the decision occurs concerning what to include or exclude in a model. What counts as relevant and how relevance is judged is dependent on the employed epistemological style.

Kasulis (2002, p. 80) uses the metaphor of a computer operating system to understand the frameworks of intimacy and integrity. Choosing between them implies that certain procedures will work differently, that some ways of reasoning will be available while others won't, just as the way we sort documents and folders or the software we have access to varies depending on the OS in our computers.

To round up this part of the discussion, Bousbaci (2008, p. 40) convincingly argues that 'each shift in the evolution of design thinking in fact corresponds to a major shift in the implicit models of the designer included within the analogous theoretical discourses.' We add that any shift in design thinking, such as the fluctuation from first-generation methods to the reflective practitioner, is also a shift in the implicit epistemic models. Intimacy and integrity seem to be well-fitted to illustrate and explain what these implicit models of styles of knowing and thinking in design activity consist of.

Design negotiations as 'belonging-with'

Our second exploration is about negotiations in design. Let's start with a quote in which Paula Scher (cited in Millman, 2007, pp. 50-51) talks about this issue:

There are all kinds of problems and compromises that [one] must negotiate. Things that have to be held on to, things that have to be protected to make something move forward. And it's very, very, very hard work.

What's important to note is that Scher is not merely *wishing* to hold on to the elusive things she alludes to. She makes these things especially her own; they truly matter to her because she intimately *identifies* with them and it would be a personal loss if what she cares about was diminished. For Kasulis (2002, 37), 'my intimate relations are more than connections I have made; they are actually part of what I am or have become.'

Scher's intimate relation with her work highlights how design work and the designer as a whole person are irremediably intertwined: there is no external work that is fully separated from the person who creates it. In an intimate relation, the work overlaps the person and is thus *internalised*. In this sense, the work belongs *with* the designer; it is not merely a separate object. One of us has explored this in more detail elsewhere (Guersenzvaig, 2021; Guersenzvaig & Ventura, 2022).

As per Kasulis, this phenomenon of being intimate with the work is known to be 'known only to those within the locus of intimacy' (p. 38). In this sense, a work—a design—overlaps in an intimate relation first with the design team and the project commissioner, but when the design is instantiated in a real-world artefact, it can also be part of an intimate relation with others. So, in principle, every stakeholder, design participant, or user could have this intimate relation.

Indeed, we are intimately connected to a myriad of objects and things, and some of them end up mattering very much to us. We all have a special chair or T-shirt with which we are intimately related. These relationships have an anthropological dimension. Not only do designers and project commissioners engage in meaning-making, but also people carve meaning into their own possessions. A friend of one of us had one wheel of his favourite bicycle compacted into a metal cube. He *belonged with* the bike—just like Paula Scher was intimately connected to her own work. Naturally, a classical Western rationalist—integrity—mindset would suggest that this is utter nonsense as the bicycle and the cyclist can't possibly be anything but separated entities. A view from intimacy suggests otherwise.

Conclusion

Throughout this article, we have presented how supposedly unrelated dichotomies used to describe design activity can be subsumed into Kasulis' more overarching distinction between integrity and intimacy. A simpler, yet richer, heuristic facilitates a more comprehensive approach to describing design thinking styles, without the need to rely *ad hoc* on ambiguous opposites such as thinking versus doing or intuitive versus deliberate.

As we saw in the previous section, thinking about design in terms of intimacy and integrity helps us to better understand the development and evolution of design methods and epistemology as a transition from an assumed but inarticulate integrity approach to a more nuanced understanding of design processes based on an intimacy lens. In other words, it can be argued that design methods and epistemology have moved from integrity towards intimacy.

Here, we want to insist on the somatic, embodied, and situated nature of intimacy and its relation to praxis. Intimacy needs to be enacted. Surely, one can learn a lot about, say, spacing type from books and lectures, but it is only by *actually* spacing type and reflecting upon it that one can develop expertise and become an expert. The more we engage in this 'reflective conversation with the situation'—to express it in Schönian terminology—the more intimate the knowledge about spacing type becomes and the more this expertise becomes our second nature. In short, 'Intimacy deepens as the praxis is repeated or habitualized' (Kasulis 2002, p. 43).

In other words, having an intimate knowledge of type (whether about its history or about designing or spacing type) means that the designer, in this case, is not fully separated from the known object. There is an overlap between the known (type) and the knower (designer, typographer, or historian).

However, using the intimacy/integrity heuristic does not invalidate the knowledge gained through other approaches like the ones discussed above. Instead, the heuristic presented here is a powerful way of thinking about design that can help us become aware of relevant aspects that may remain unobserved when using other terminology.

To end, due to space reasons we have chosen to only explore epistemological examples, we believe, however, that the framework can be aptly employed for ethical discussions; for instance, on the issue of contrasting an individual understanding of responsibility based on autonomy and duty with a relational one, based on care and belonging-with.

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