

Evolution of 'Mashrabiya' in the Middle East and North Africa: traditional wood carving technique revival

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Abstract

Traditional handicrafts are witnessing a sharp decline in consumer purchases and the number of artisans making handicrafts is decreasing. Some of the reasons behind this shift are globalised markets, mass production, and technological advancement. This phenomenon has left many artisans struggling to adapt to the modern world's needs. Current innovations offer value to products, yet at times, their production process excludes the artisans from the production process. 'Mashrabiya,' a wooden architectural element commonly found in the Middle East and North Africa, is an example of a traditional lost craft due to its high cost and poor adaptation to dry climate. It has been given attention in recent years, considering its social, aesthetic, and functional value. The research finds aspects of the craft, the materials, tools, production methods, and techniques by following the 'participatory design' process and workshops, adapting Christopher Frayling's approach 'Research for design' (Frankel & Racine, 2010) by collaborating with 'Turquoise Mountain,' 'The Ministry of Culture (MOC)/Heritage Commission,' and 'The Royal Institute of Traditional Arts' (TRITA) in Saudi Arabia - 'Chambre d'Artisanat de la Région Chambre de L'artisanat de La Région Rabat-Salé-Kénitra.' The purpose is to understand and develop a method for crafts revival as an intangible heritage.

Author keywords

Craftsmanship, Artisan, Digital Artisan, Designer, Intangible Heritage.

Table 1. Terminology

Mashrabiya	An architectural element made of engraved wood, placed by windows.
Moucharaby	Term for 'Mashrabiya' in Morocco.
Roshan	Term for 'Mashrabiya' in the Arabian Peninsula.
Manjoor/Mangoor	A technique common for 'Roshan' or wood lattice screens achieved by piercing wood.

Introduction

The synergy between design methods and craftsmanship is present in the work of many first-generation designers. Ugo La Pietra is a notable pioneer who explored this strategic relationship by exhibiting at the 'Abitare il Tempo' exhibition

(Follesa & Armato, 2019, 61). 'Mashrabiya' is an architectural element and traditional craft gaining importance after being abandoned. It is a conventional wooden lattice-based window frame in the Middle East, North Africa, and other parts of the world including Europe (Alothman, 2023).



Figure 1. Traditional 'Mashrabiya' in Old Jeddah, Saudi Arabia. Taken by Ayyad Almilli in 2022.

The 'Mashrabiya' is made from interconnected wood piercings and carries functional, social, and aesthetic values (Alothman, 2023). According to the French Egyptologist Gaston Maspero, 'Mashrabiya' began to develop during the Tulinid era and then spread in various Arab regions (Maspero, 1974). This rise slowly fell in the 19th century due to their cost and poor weather adaptation. However, the current interest in sustainable architecture has allowed a revival in their restoration (Zahabi,

2022). The 'Mashrabiya' is an icon of heritage infused with a purpose that should be considered a tool for artisans, homeowners, architects, and home builders. The revival of this craft form could spread globally as an art form. A successful design that relied on the functional and aesthetic philosophy of the 'Mashrabiya' was the 'Institut du Monde Arabe' in Paris, designed by Jean Nouvelin is a successful architectural project that used the 'Mashrabiya' as a central element in its structure. He relied on the idea of movement by using the shutter lens concept, installed between two layers of glass to control the amount of light entering the building. He achieved that through a central device influenced by the functionality and aesthetics philosophy of 'Mashrabiya' (Bayomy, 2016).

Methodology

The 'participatory design' process defines techniques where experiments are co-interpreted by the designer and artisans (Spinuzzi, 2005). The method includes collecting information about the craft, building workshops, and receiving feedback. As described by Tone Bratteteig: 'The process is a six-phase



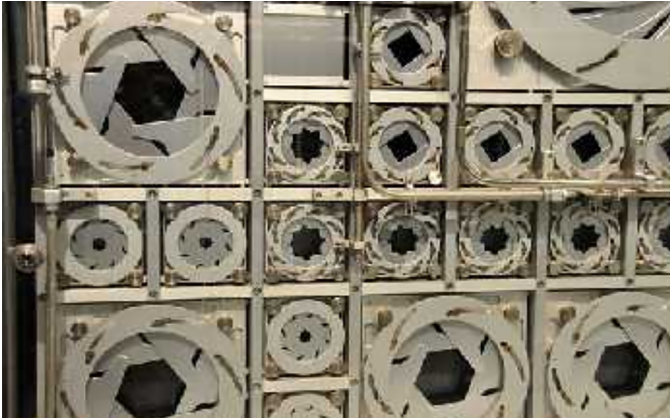


Figure 2. The construction of one part of the façade of the Arab World Institute in Paris, France.

design cycle: Real-life situation, understanding, describing, identifying needs, materializing, testing' (van der Velden & Mörtberg, 2014). Data collection varies between tools such as questionnaires, observations, interviews, workshops, 'research for design,' and literature review. Table 2 elaborates on the approach:

Table 2. Research methodology

Literature review	Implementing theoretical research by collecting historical background and running interviews with organisations and running workshops of the craft.
Case study	Analysing a case study/documenting learnings on a 'Mashrabiya' restoration project at (TRITA) in Jeddah, Saudi Arabia.
Data collection	Running interviews, creating questionnaires, learning the craft with a trainer.
Data analysis	Studying data about 'Mashrabiya': Crafting styles-technique-tool-material-temperature-production-styles-patterns.
Conclusion	Understanding the craft and artisans' conflicts in the modern.

Target Audience, Problem Statement, and Goal

This project aims to preserve heritage crafts through collaboration and workshops. The beneficiaries include artisans who seek developing methodologies and revive heritage crafts, the public who could discover contemporary artists through workshops and digital education, design practitioners and educators to connect to more extensive networks, and organisations who could establish public workshop spaces to allow artisanal communities to commercialise local crafts. The proposal addresses the importance of adapting traditional manufacturing processes to new production methods and highlights the role of designers as middle persons to introduce and maintain traditional crafts in a changing world. The project suggests art-sharing applications for promoting the revival of the craft. Yet, it mainly addresses social issues concerning artisanal retirement and the breakdown of their communities by preserving intangible heritage in a declining era of craftsmanship. Socio-economic benefits can be obtained that returns with an advantage for parties involved in the craft. The project also explores the term 'Artidesign' as a conflict solver (Cristallo et al., 2019) by allowing exploration and finding a balance between new production methods and traditional manufacturing processes, which can establish a connection between design

and craft in contemporary practice using 'digital fabrication' (Malakuczi & Di Lucchio, 2016, 352).

General Objectives

- » **GO.1** Developing existing methodologies common in Morocco and Saudi Arabia in 'Mashrabiya' designs.
- » **GO.2** Developing universal terms in carving processes for artisans for unified practices.
- » **GO.3** Implementing traditional and digital knowledge with artisans.

Specific Objectives

- » **SO.1** Understanding historical aspects and current technologies in the craft.
- » **SO.2** Developing craft guidelines through participatory design and workshops.
- » **SO.3** Training artisans with digital and marketing tools.

Results

The author collaborated with the 'Chambre d'Artisanat de La Région Rabat-Salé-Kénitra' in Rabat, Morocco: interviewing Abdullah Morchidi, a member at the chamber in charge of wood, who supported in a series of wood workshops to understand the types, tools, and production methods for 'Mashrabiya.' Since 2020, the author has been collaborating with 'Turquoise Mountain (TM);' a non-profit organisation in Riyadh, Saudi Arabia, with a vision of supporting artisans, in partnership with 'MOC/Heritage Commission' and 'TRITA,' an institute and member of 'Cumulus' association, providing workshops in the field of Saudi traditional arts.

Table 3. Field research activities of the author.

March '23	Attending a workshop in natural dyes. (TRITA) Riyadh, Saudi Arabia.
February '23-ongoing	Collaborating with Arch. Franco Audrito 'Studio 65' for an exhibition celebrating handmade crafts hosted by (MOC). (TM)-Riyadh, Saudi Arabia.
December '23-ongoing	<ol style="list-style-type: none"> 1. Running research about regional windows-doors in Saudi Arabia. 2. Interviewing artisans for potential collaboration (for workshops and production). 3. Developing questionnaires, quality check, and authentication reports for participating artisans, students, and products made during 'TRITA' workshops. (TM)-Riyadh, Saudi Arabia.
November '23-ongoing	<ol style="list-style-type: none"> 1. Working with artisans for product design in the field of crafts. 2. Running research for 'User and Designer Guidelines' for (TRITA) (MOC)/Heritage Commission. Crafts: Ceramics-pottery-plaster-wood Carving. 3. Building workshop curriculums at (TRITA): Traditional Najdi Doors-plaster carving-Manjoor'-natural dyes. 4. Building regional patterns and motifs libraries using design software. (TM)-Riyadh, Saudi Arabia.
July-August '22	Running interviews with wood artisans-visiting sites and markets. 'Chambre de L'Artisanat de La Région Rabat-Salé-Kénitra'-Rabat, Morocco.

Furthermore, the author will use a case study on a restoration project at 'TRITA' and will work with artisan Abdullah AlKhuzam for knowledge on the 'Mashrabiya' crafting technique.

Conclusion

The paper aims to revive the art form, create an artisanal community, and explore modern technologies leading to efficiency and function through the research design process. This research fits in the heritage preservation direction

through interviews, workshops, observation, 'research for design,' and public interaction. As a larger-scale project proposal, this craft can potentially increase the general focus on art. It will foster relationships between designers, artisans, and organisations through collaboration. Develop document guidelines on establishing 'Mashrabiya' art practices and offer an avenue to explore new styles, techniques, and materials. Furthermore, to consider modern methods to produce their qualities.

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