



From Tangible to Intangible Heritage: The Craft Culture of Ras Al Khaimah

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Executive Summary

The United Arab Emirates (UAE) has made significant progress in developing its heritage and handicraft industries over the past decade. However, the changes since its establishment in 1971 have reshaped its heritage landscape. Two key handicrafts, the *madkhan* and *jerz*, are highly valued for their authenticity in Ras Al Khaimah, Fujairah, and the Musandam Peninsula in northern Oman. Their resurgence in contemporary culture by heritage associations and locals in the northern emirates reflects the UAE's commitment to preserving both tangible and intangible heritage. Although seemingly unrelated, these crafts are intertwined in the minds of their makers, forming part of a shared manufacturing tradition in the region. This policy paper provides an overview of the *madkhan* and *jerz*'s origin, production, and display as traditional artifacts of Ras Al Khaimah. It also proposes measures for national and local museums and community representatives to protect and nurture these crafts from endangerment.

Introduction

Handicrafts have always been a tangible part of Emirati life, particularly for certain families and tribes. However, there is ongoing debate in scholarly literature about what defines a craft globally (Mignosa & Kotipalli, 2019). Some view crafts as replicated souvenirs or “knockoffs,” while others emphasize their authenticity through indigenous craftsmanship using local natural resources (Ellis & Lo, 2019). UNESCO defines crafts as artisan products made by hand or with hand tools, with utilitarian, aesthetic, traditional, or symbolic purposes. This definition applies to the UAE, where handmade crafts link the past, present, and future through their continuity (Mignosa & Kotipalli, 2019). This is especially relevant in Ras Al Khaimah, which seeks to revive its craft heritage in the tourism and business sectors (Picton, 2010; MacLean, 2018).

Over the past few years several traditional UAE crafts have been added to UNESCO's World Heritage List (Wakefield, 2021). Two notable crafts not yet included are the traditional incense burner (*madkhan*), made from local clay, and the traditional steel or bronze axe-head (*jerz*), fitted to a wooden staff, also crafted from local clay.

Both the *madkhan* and *jerz* are key markers of indigenous identity in the northern emirates, particularly Ras Al Khaimah, and in the Musandam Peninsula, where they were once used daily in homes (Map 1). The bladed axes, carried through the mountains for tasks like cutting ropes and striking snakes with the blunt side, are now primarily used for ceremonial occasions and display. Historically, the axe replaced the traditional curved dagger in the Gulf region (Richardson & Dorr, 2003; Zacharias & Topping, 2018).

Map 1: Ra's Al Khaimah, United Arab Emirates



Originally, both handicrafts were made exclusively by the Shihuh tribe. Today, they are mainly produced in handicraft centers or at national festivals. Each artifact follows a unique traditional production method, often overlapping in design techniques using tools to create geometric motifs. As such, they are both tangible (physical artifacts) and intangible (intellectual knowledge, practices, and traditions) heritage due to their distinctive, creative forms and design processes.

This paper outlines traditional methods for making the madkhan and jerz, aiming to protect these processes with the community members who hold this knowledge. It explores how craftspeople in Ras Al Khaimah, the northern emirates, and the Musandam Peninsula conceive of and produce these artifacts. The narrative highlights the community's identity, creativity, and pride. It also shifts focus from the tangible artifacts to their intangible aspects, as expressions of inherited knowledge and production practices. The conclusion stresses the importance of understanding the craftspeople's role to fully grasp how these crafts reflect traditional communities.

Methodology from Festivals to Museums

Fieldwork for this paper took place from February to June 2024 in Ras Al Khaimah, Dubai, and Fujairah, involving four main activities: archaeological site visits, studying museum artifacts, festival participation, and interviews. This approach assumes that to understand the indigenous knowledge of potters and their craft heritage, the observer must use anthropological

methods that prioritize the community's own perspectives (Arnold, 2018).

In 2024, seven ethnographic interviews, including three video recordings, were conducted with local Emiratis on traditional crafting of the madkhan and jerz, as well as with employees of the Department of Antiquities and Museums and with shopkeepers in the Kuwaiti Souq and Old Souq near the National Museum of Ras Al Khaimah. One interviewee recalled that her mother and uncle learned to make (madkhan) at the age of seven or eight. In addition to the interviews, time was spent collecting provenance histories, including measuring, weighing, photographing, and digitizing traditional (madkhan) at the National Museum of Ras Al Khaimah. The project also employed photography, scanning, and 3D printing to replicate and document the artifacts' authentic features.

Origin of Al Madkhan as Tangible Craft Heritage

The madkhan in Ras Al Khaimah is also known as either a *mibkhara* (pl. *mibakhirah*) from the root "to burn," in Classical Arabic, or as a *majmar* (pl. *majamirah*) from the root "gmr" or "fire-coal" (Lipinski, 2001; Zimmerle, 2020) (see Photograph 1). It was once made by families of potters as part of the "Julfar" ware craft assemblages that dominated the pottery heritage of the region in the 1960s and 1970s at Wadi Haqil, a valley surrounded by the Hajar mountains in the Shamal region of Ras Al Khaimah (see Photograph 2).

Photograph 1: A Traditional Incense Burner from Musandam Displayed at Khorfakkan (Zimmerle 2024)



Photograph 2: Pottery Kilns of Julfar Ware, Wadi Haqil (Courtesy of the Ras al Khaimah National Museum)



It is there where old pottery kilns were used to fire cooking pots (*burmah*), water pots (*yahlah*), water jugs (*khars* and *hab*), and coffee pots (*dallal*). The kilns remain as archaeological features in situ throughout the Wadi Haqil, which are visible today along the landscape (Mitsuishi & Kennet, 2013; King, 2003; Richardson & Dorr, 2004; Costa, 1991; Ziolkowski & Al-Sharqi, 2005). The (madkhan) that were once fired in those kilns are best described as rounded forms with open basins, along with one, two, or four curved handles, and a highly ornate stamped design in the round as can be seen in the Ras Al Khaimah Museum. They are also found recently made in the Old Souq on the street near the Ras Al Khaimah Museum.¹

Archaeological Excavation and Display of Incense Burners (madkhan): Establishing Chronology

Sherd fragments of madkhans with intricate geometric designs were excavated from the 15th–16th century in the trading town of Julfar al-Nudud in 2010 (Saunders, 2013, p. 400, Drawing 116). These artifacts, housed in various private and national museum collections throughout Ras Al Khaimah and the northern emirates, demonstrate the care potters took in their craft, evident in the precision of the traditional designs. The northern emirates and Musandam (madkhan) are widely displayed in UAE museums, with the most significant

collection held at the Ras Al Khaimah National Museum and the Khasab Museum in Oman (Map 2). Historically, these items were made and traded across villages in the northern emirates. According to Ziolkowski and Al Sharqi's 2003 ethnoarchaeology interviews, pottery was traded between the Shihuh in Ras Al Khaimah, Fujairah, and Oman in the 1970s, a trade network that continues today, as confirmed by interviews with shopkeepers in Ras Al Khaimah in April 2024.

Map 1: Musandam Peninsula



Manufacturing Incense Burners (madkhan) as Intangible Heritage

The *madkhan* is manufactured today through a series of repetitive steps, which I observed in February and June 2024 at the Sharjah Heritage Festival, and at the Shamal Folk Arts and Theatre Society in Ras Al Khaimah, respectively. The (madkhan) indigenous to the northern emirates are easily recognizable and uniquely notable through their circular forms and intricate designs produced by wooden tools. Traditional examples made

¹ This image of these forms is reinforced within Emirati communities monumentally by the construction/reconstruction of enlarged model handicrafts such as incense burners on display at the roundabouts of Fujairah and Khorfakkan as well as downtown in Abu Dhabi serving as further reminders of the collective identity and memory of handicrafts as traditional touchstones in the communities.

today in the Musandam Peninsula are identified as Lima or Al Alama ware, which depends upon not only where the clay was procured but also how they were manufactured in these two villages. Both are sold in markets throughout the UAE and Oman.

The process of making a madkhan involved several steps besides firing in open pits. First, clay was collected from the mountains and pounded with an anvil-shaped stone to remove smaller stones, quartz, and impurities. The clay was then shaped into a cone and hand-turned on a wooden wheel head, followed by hand-coiling it into a rounded form. Potters used over 20 wooden tools to decorate the exterior and burnished the form with seashells or wooden tools (see Photograph 3). Potters often worked together in rooms, engaging in multiple steps while chatting about everyday affairs (see Photograph 4). During peak market periods, such as before religious holidays, potters in Lima would create hundreds of madkhans for distribution in Ras Al Khaimah, Fujairah, and other northern emirates. The final steps included firing the madkhan in an open pit, painting it with a traditional red dye called *mshak*, and then gifting or selling it in markets and homes (Richardson & Dorr, 2004, pp. 73–75; Zimmerle, 2017, pp. 13–14).

Photograph 3: Rocker Stamping a Design onto an Incense Burner, Lima, Musandam, Sultanate of Oman (Zimmerle 2012)



Photograph 4: Women making Incense Burners in Lima, Musandam, Sultanate of Oman (Zimmerle 2012)



More mass-produced replicas of this form can be found in the Fujairah Friday market (see Photograph 5), which I observed in March and June 2024. However, the Shamal Folk Arts and Theatre Society informed me that at least one local Emirati woman potter still crafts the form traditionally for other Emiratis in Ras Al Khaimah, especially during peak demand around Eid and other special holidays and festivals (see Photograph 6).

Photograph 5: Incense Burners at the Friday Fujairah Market made in the United Arab



Photograph 6: Mohamed Ashmelee of Ra's al Khaimah making Traditional Pottery by hand at the Shamal Heritage Association (Zimmerle's Interview, June 2024)



Unlike the square or cube-shaped (*madkhan*) commonly found in the southern Arabian Peninsula regions, such as Dhofar in Oman and Hadramawt in Yemen—typically with crenellated “horns” and a single handle—the *madkhan* from the northern emirates has a distinct appearance (see Photograph 7) (Zimmerle, 2017; Zimmerle, 2018; Zimmerle, 2020).

Photograph 7: Dhofari Cube-Shaped Incense Burner found in the Souq of Ra’s al Khaimah being Laser Scanned at New York University Abu Dhabi (Zimmerle 2024)



A cube-shaped, horned *majmarah* found in shops in Ras Al Khaimah or the Friday souq in Fujairah clearly indicates its origin from Dhofar, based on its square shape and horned corners. The fact that it appears in Fujairah, outside of its Dhofari environment, suggests

active trade circulation, likely by boat, between Dhofar and Musandam, and then overland to Ras Al Khaimah. Shopkeepers in Dhofar, who I interviewed in 2012, mentioned that (*madkhan*), along with frankincense, were shipped by boat from Salalah to Musandam in Oman, a system that likely continues today. Similarly, the circular *madkhan*, often with one or more handles and intricately designed with rocker-stamped patterns, is a distinctive geographical trademark of the northern emirates or the northern Musandam Peninsula (see Photograph 8).

Photograph 8: Rocker stamp wooden tool used to impress angular geometric patterns onto clay (Zimmerle)



This is a unique feature of intricate design that may support the craft to meet the UNESCO’s World Heritage nominating criteria for inscription as intangible heritage. The wooden tools are used to create a very finely intricate pattern that remains unique and identifiable when shopping for (*madkhan*) today in the emirates (Richardson & Dorr, 2003, p. 73; Zimmerle, 2017, pp. 12–13).

In 2012, while observing a potter practice the terracotta *madkhan* craft, I saw her hold a tiny tool between her fingers, applying slight pressure to the surface of the vessel to create intricate patterns (see Photograph 8). Potters use at least two main methods, alternating between stamp tools for turning, refining, and decorating clay forms (Richardson & Dorr 2003, p. 74). These tools, carved from local wood by male toolmakers, are integral to the process. Traditionally, ceramic forms have been made by men in Ras Al Khaimah (King, 2003), but in Musandam, I interviewed three female potters in 2012, prior to my work in Ras Al Khaimah in 2024, who emphasized that both men and women in their families were taught the craft.

The Origin of the Jerz as Craft Heritage

Al jerz/yarz (pl. *juruz/yaroz*), the Emirati Arabic term for an axe-head is described in Ibn Durayd’s classical dictionary (ca. 838–933 CE), *Al Jamhara fi al-lughah*, as likely related to the Arabic root “jzr.” In the entry, he describes it as “a stick of wood and iron.” In further discourse, it is therefore found lexicographically as a nomenclature describing types of artifacts used for cutting as “instruments of war” in the early Islamic period (Ibn Durayd, 1987, Vol. 1, p. 455).

While production of the jerz in traditional manifestations has decreased exponentially in the northern emirates and the Musandam Peninsula, in 2024 I observed that it is still manufactured in these regions for locals and tourists alike and sold in the markets of Ras Al Khaimah alongside (madkhan).

Traditionally, both metal and ceramic crafts intersected within the home, as they were made and used there. The metal tools used to make the jerz mirror the wooden tools used by potters, as families were artisans of many crafts. Displayed together, often with the madkhan in the Ras Al Khaimah Old Souq, these two artifact types align with the collective identity of the people of Ras Al Khaimah and the northern emirates (see Photograph 9). Families also shared that both men and women could make (madkhan)s, while men were primarily involved in making jerz axes and other weapons, tools, and blades (Zimmerle, 2017, pp. 13–14).

Photograph 9: Al Shihuh-Style Incense Burners and Jerz axes on display in the Ras al Khaimah souq (Zimmerle 2024)



While the jerz-making process no longer uses sand models as in pre-Islamic times, hot forging—heating and hammering—remains essential. Before the 1970s, metal was heated over hot coals with hand-worked goatskin bellows, but modern jerz makers now use gas blow torches for necessary heat (Costa, 1993). Modern metallurgy reduces production time from three days to about three hours due to advanced equipment (Costa, 1993; see Photograph 10). The traditional process of heating and plunging the metal into cold water is still used, though faster, with purposeful tools. After cooling, decorative work is done using chisels and tools to incise vertical lines and dots on the blade.

Photograph 10: An Emirati Jerz Maker in the Northern Emirates Designing an Axe (Zimmerle 2024)



Manufacturing Al Jerz as Intangible Heritage

The tools used by the jerz makers today create a precise angle, curve or design that is punched or hammered into the steel. For both pottery and metal crafts today as well as in the past, the design sets included fenestrated triangles, incised Xs, zig-zags, punctuated marks, and the very old patterns of dotted and double dotted circles made traditionally by a *zahrah* tool, which creates impressed circles, which can also be used on the body of a wooden drum (*tabl*), another craft made by the jerz makers (Ziolkowski & Al-Sharqi, 2006, p. 152, 154; Richardson & Dorr, 2003, pp. 46–47), who used the jerz to hollow out the body of the drum from local wood.

After the blade of the jerz is forged, the jerz is fitted with another part, the meter-long shaft of local hardwood, often made from *sidr* (*Zizyphus spina-christi*), *samr* (*Acacia tortilis*), jujube/ bitter almond (*Amygdala*

Arabica), or olive wood, which is incised and decorated, and then ringed with a collar. Afterwards, the wood is passed through the axe-blade and is capped with a brass rod, and the more expensive jertz will display this brass feature (Costa, 1991, p. 186; Richardson & Dorr, 2003, pp. 73–75). In some cases, I observed in May and June 2024, local men incised the brass rod with their initials or with their own trademark phrases. In the end, the handle is cut, incised, or decorated with patterns complementary to those geometric shapes used on the sides and top of the blade of the jertz (see Photograph 11). The decoration is very similar to the geometric patterns found on the incense burner (madkhan)s and on the exterior of traditional wooden drums. Traditionally, kohl or black dyes and crushed flora to make juices as paints were rubbed into the indented and recessed areas incising the lines to accentuate the design which one finds practiced today (Costa, 1991, p. 186), although I witnessed packaged commercial paints being used instead because of the convenience

Photograph 11: An Emirati Maker Designing the Handle (Zimmerle 2024)



Heritage Policies in the UAE

The January 2024 proclamation by President Sheikh Mohamed bin Zayed Al Nahyan to establish the Abu Dhabi Heritage Authority marks a significant step in centralizing the preservation of the UAE's diverse heritage. With over 64 architectural features in the emirates receiving "immediate and unconditional

protection," similar protocols should be extended to all heritage, including tangible handicrafts and intangible traditions of craftsmanship.

This proclamation strengthens the preservation of cultural heritage in the UAE, building on Federal Law No. 37 of 2008 and Federal Law No. 11 of 2017, as well as the Abu Dhabi Declaration of 2016. Federal Law No. 37 which protects heritage by conserving archaeological sites and historical buildings, prohibiting unauthorized alterations or excavations. Federal Law No. 11 focuses on preserving antiquities, especially artifacts over 100 years old. The Abu Dhabi Declaration on Heritage led to the creation of an international network of safe havens for safeguarding cultural property endangered by conflicts or terrorism, along with an international fund for preventative and emergency operations. This development underscores the UAE's commitment to protecting and restoring heritage of outstanding value and collaborating with UNESCO to standardize heritage documentation across the emirates.

Despite being unique artifacts indigenous to Ras Al Khaimah and the northern emirates/Musandam Peninsula, the jertz and madkhan have not been nominated for the World Heritage List. This lack of recognition hinders awareness and support for sustaining their traditional manufacturing methods amidst change and innovation. Both artifacts qualify for nomination, as they may meet the selection criteria (vi) for being associated with living traditions or beliefs of outstanding universal significance and (iii) for bearing exceptional testimony to a cultural tradition. They also qualify under (i) as a "masterpiece of human creative genius," given the intricate skill required to create these forms.

While (madkhan)s and axes are common across cultures, the physical isolation of the northern emirates and the Musandam Peninsula, due to their mountainous terrain, likely contributed to the development of these unique local traditions and expressions of craftsmanship (Costa, 1991, p. 205). The following recommendations aim to advance the preservation and sustainability of the UAE's heritage, particularly the traditional crafts still practiced in Ras Al Khaimah and the Musandam Peninsula (see Photograph 12).

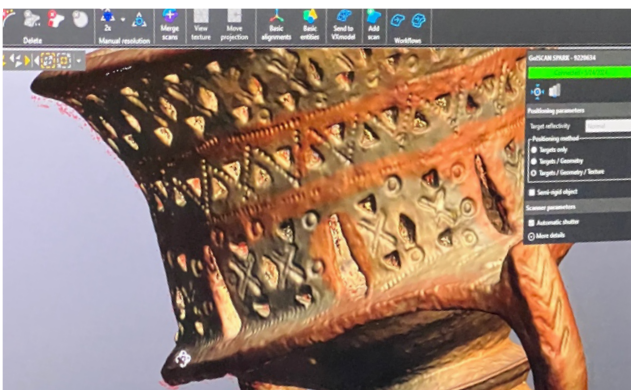
² <https://www.thenationalnews.com/arts-culture/art-design/2024/01/24/abu-dhabi-heritage-authority/>

Photograph 12: Ali Ashmelee of Ra's Al Khaimah making Pottery at the Sharjah Heritage Festival (Zimmerle's Interview)



Digitization for Preservation: The first recommendation is for Ras Al Khaimah to digitize its heritage as part of a cultural resource and heritage management plan. For instance, my team at New York University in Abu Dhabi digitally scanned (madkhan) at the National Museum of Ras Al Khaimah, preparing for virtual reality research, teaching, and learning. 3D training for museum staff and exposure to digital methodologies will inspire both current and future museum professionals to embrace new training in data collection and heritage presentation (see Photograph 13). The result will be physical scaled models printed from 3D files, aiding global cultural preservation. This technique helps track changes in form and function, while also preserving an artifact's original cultural identity.

Photograph 13: 3D Scanning the Collection of Incense Burners at the Ra's Al Khaimah National Museum (Zimmerle 2024)



Provenance Studies: The second recommendation is to strengthen local museums and centers for archiving artifactual histories authentically throughout the Emirates as safe places for the conservation and dissemination of heritage. This means the adoption of defined methods and practices for recording provenance information on artifacts and handicrafts for local museums. In places where museums are privatized, which is the case for many collections in Ras Al Khaimah, university internships and training sessions as collaborations between universities, museums, private companies, and local museums can provide assistance (financial and training) to help owners document properly their private collections of artifacts and heritage.²

Cultural Awareness, Craft Sessions on Making, and Community Education: As one Emirati interviewee of the younger generation told me, "I would like to make a series of videos on my heritage and be an ambassador for Ras Al Khaimah's heritage." Encouraging local participation in heritage activities including making the madkhan and jertz allows for all people to become engaged in the agency of heritage-making (Wakefield, 2021, p. 152). Folklore and stories about the madkhan and jertz still need to be collected, recited, and stored digitally as archives and such oral literature is often recited on site at special organized community events (Zimmerle, 2020, pp. 40–41; Wakefield, 2021, p.149).

Shared Traditional Expressions as Indigenous Knowledge: The fourth recommendation is to continue the exchange of craftsmanship knowledge between the UAE and Oman, particularly between Ras Al Khaimah and the Musandam Peninsula, where the madkhan and jertz are still made by families of artisans. Festivals play a crucial role in connecting contemporary practices with traditional rituals (Wakefield, 2021, p. 144). People often learn these crafts by imitating others or reproducing forms from household items or museum artifacts, which preserves culture and community identity. This leads to the protection of traditional crafts, codification of artifacts, and the promotion and training of authentic practices (see Photograph 14).

² <https://www.thenationalnews.com/arts-culture/art-design/2024/01/24/abu-dhabi-heritage-authority/>

Photograph 14: A Ra's Al Khaimah Jerz (Shamal Heritage Association & the National Museum of Ra's Al Khaimah, 2024)



memory and identity within the community across the northern emirates as a new generation of Shamal craftsmen have emerged in Ras Al Khaimah wishing to make and sustain traditional pottery and metal handicraft industries for future generations. What emerges from the research is the revival of interest in these two handicrafts overall, as touchstone artifacts reflecting Ras Al Khaimah's identity and culture.

Conclusion

In this policy paper, I have reviewed the typology of two specific handicrafts—the (madkhan) and the axe-head (jerz)—which are endemic to the northern emirates, while making recommendations for their digital protection and sustainable development in Ras Al Khaimah, as the handicraft heritage landscape continues to change in its complexity and meaning in the southeastern Arabian Peninsula. The recommendations presented above intend to provide insight into what may be emphasized to preserve and advance craft production in Ras Al Khaimah. This will lead to a renewed interest in the crafts linking both

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SHEIKH SAUD BIN SAQR AL QASIMI FOUNDATION FOR POLICY RESEARCH

The Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research was established in 2009 to aid in the social, cultural, and economic development of Ras Al Khaimah, a northern emirate in the United Arab Emirates (UAE). Established through Emiri decree by His Highness Sheikh Saud bin Saqr Al Qasimi, UAE Supreme Council Member and Ruler of Ras Al Khaimah, the Foundation is considered a non-profit, quasi-governmental organization. The Foundation has three broad functions:

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- Developing and providing strategic services and support to build individual and local capacity in education and the public sector
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