



LOCKSMITHS OF ALIGARH: A MUSEOLOGICAL PERSPECTIVE ON TRADITIONAL CRAFTSMANSHIP

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ABSTRACT

This paper examines the traditional craftsmanship of locksmiths in Aligarh, Uttar Pradesh, India, focusing on the preservation and documentation of their intangible heritage. Through a museological perspective, it explores the historical significance, evolution, and contemporary challenges facing the lock industry in Aligarh. The study underscores the importance of safeguarding traditional craftsmanship as a means of preserving cultural identity and promoting economic sustainability. It discusses the resilience of locksmiths in adapting to globalization, technological shifts, and changing consumer preferences, while also highlighting the negative impacts such as child labour and health hazards. The paper proposes the establishment of a museum dedicated to Aligarh's lock industry as a tangible means of preserving and showcasing its cultural legacy. Additionally, it outlines a comprehensive approach to safeguarding traditional craftsmanship, including documentation, skill transmission, educational outreach, and collaboration with stakeholders. By embracing innovation while honouring tradition, the locksmiths of Aligarh can ensure the continued vibrancy of their craft for future generations.

Keywords: Museum, UNESCO, Intangible cultural heritage, Traditional craftsmanship, Aligarh lock industry.

INTRODUCTION

The craft of locksmithing has a rich and storied history, deeply embedded in the cultural and artisanal tapestry of regions around the world. Aligarh, a city in northern India, stands as a testament to the endurance and evolution of traditional craftsmanship in the realm of locksmithing. This unique and specialized skill set has not only played a pivotal role in shaping the local economy but has also contributed significantly to the cultural heritage of the region. The history of locks traces back thousands of years, evolving from simple wooden mechanisms to sophisticated, electronically controlled systems. Over time, locks have played a crucial role in securing property and maintaining privacy, with advancements driven by technological innovation and societal needs. From ancient civilizations to modern-day industries, the development of locks reflects humanity's ongoing quest for security and protection. Many generations are involved in this work but their dedication towards this work is losing day by day, as they are unable to earn profit because of the Chinese competitors in market and also because inadequate support has been provided to them by the government. They mostly produce padlocks, but by selling them in Aligarh in wholesale, do not make profit and therefore they starting selling these locks to West Bengal where they can have reasonable profit. People of Aligarh like padlocks and that is the only reason that still being biggest competitors in the market such as link locks etc, even though padlock is still in the race. Recently Satya Prakash Sharma, an Aligarh-based traditional craftsman, recently donated the world's heaviest lock and key, weighing 400 kg, to the Ram Mandir Trust in recognition of their continuous dedication to their trade. This global acclaim strengthens the city's prestige and encourages cultural interchange. Lock factory gives employment to the people, men and women both are involved in this work, even children are also doing this work to fulfil their needs or to acquire skill by working or earning in this factory. But everything in this world, have positive's as well as negative's and so is there in this work. Lock factory intolerable amount of noise pollution which can cause hearing impaired, brain problems, as well as heart problem. It is suggested that government and non-government organizations should take an initiative for the betterment of the artisans involved in this craftsmanship not only to the industries, already having economic support but to the smaller units of locks, which are in actual need. Programs should be made to provide

knowledge and skill about this craftsmanship, workshops can also be organized. They should draw a forward plan to safeguard this craftsmanship and initiatives should be taken for the promotion. The importance of safeguarding and documenting the traditional craftsmanship of Aligarh cannot be overstated. Rooted in the city's rich cultural history, these traditional skills embody a heritage that has been meticulously crafted and passed down through generations. Safeguarding this craftsmanship is a commitment to preserving the very essence of Aligarh's identity, ensuring that the intricate techniques, designs, and artistry continue to thrive in the face of modernization. Beyond cultural preservation, documenting these skills becomes a crucial tool for preventing loss of knowledge. By capturing the nuances of traditional craftsmanship, future generations are granted access to a wealth of artisanal expertise. This documentation acts as a bridge between the past and the future, allowing for the continued appreciation and transmission of skills that define Aligarh's unique cultural tapestry. Establishing a museum dedicated to the traditional craftsmanship of locksmiths in Aligarh would be a commendable initiative to preserve and showcase the unique cultural heritage of the city. The museum could serve as a comprehensive repository, featuring a curated collection of Aligarh locks, tools, and artifacts that highlight the intricate designs and skills passed down through generations. Interactive exhibits could provide visitors with a hands-on experience, offering insights into the traditional techniques involved in lock making. Additionally, the museum could incorporate educational programs, workshops, and demonstrations to engage both local communities and visitors, fostering a deeper understanding and appreciation for Aligarh's locksmithing heritage. Such a museum would not only contribute to cultural preservation but also imparting knowledge, economic opportunities, and the continued transmission of traditional craftsmanship.

HISTORY AND DEVELOPMENT OF LOCKS

The lock industry in Aligarh, India, boasts a rich history and a trajectory of development that spans several centuries. The roots of this industry can be traced back to the 18th century when skilled artisans in the region began crafting locks to cater to local needs. Initially, these locks were utilitarian, serving practical purposes within the community. The industry gained prominence and recognition for its craftsmanship during the 19th century. The establishment of formal workshops marked a significant shift, providing a structured environment for the production of locks. Artisans in Aligarh honed their skills and developed a distinct style characterized by intricate designs and meticulous attention to detail. This period witnessed the emergence of the city as a hub for lock manufacturing, with its products gaining favour not only across India but also internationally. The 20th century brought further advancements to the Aligarh lock industry. Modern technologies began to complement traditional craftsmanship, allowing for more efficient production processes without compromising the unique aesthetic appeal of the locks. The industry adapted to changing market dynamics and consumer preferences, ensuring its continued relevance in the face of evolving trends. Aligarh's locks became sought after for their durability, security features, and artistic designs. The city's lock manufacturers demonstrated a commitment to quality, and their products found a place in homes, businesses, and even governmental institutions. The lock industry in Aligarh became synonymous with reliability and craftsmanship. In recent decades, globalization and technological advancements have posed both challenges and opportunities for the lock industry in Aligarh. While facing competition from mass-produced locks, the industry has maintained its distinct identity by preserving traditional techniques and designs. Artisans and manufacturers have embraced innovations such as computer-aided design (CAD) and modern manufacturing processes to enhance efficiency while staying true to the heritage of Aligarh's lock craftsmanship. Today, the lock industry in Aligarh stands as a testament to the resilience of traditional crafts in a rapidly changing world. The city continues to produce locks that blend innovation with age-old artistry, securing its position as a global player in the lock manufacturing landscape. The journey of the lock industry in Aligarh exemplifies the seamless integration of tradition and modernity, ensuring the legacy of craftsmanship endures for generations to come.

DOCUMENTATION OF CRAFTSMANSHIP OF ALIGARH LOCKS

In Aligarh there are many smaller units or factories for the production of locks one of them is in Cheerut. In Aligarh, basically both handmade and mechanical production is done. Padlocks are the most commonly produced and sold. Padlocks are the only locks that are not permanently attached to anything else. Padlocks are one of the most immediately recognized types of locks because they come in a variety of sizes, are free-standing and portable, and are one of the most easily known sorts of locks. Padlocks are classified into two types: combination and keyed. Combination locks have one or more number dials that, when the correct combination is entered, open the lock. They are frequently simple to decode or shim open. There are various keyed padlock alternatives to consider. Padlocks are classified as re-keyable or non-re-keyable. If a padlock cannot be re-keyed, you cannot change the key that opens it (for example, to use the same key as your residence). Padlocks can be key-retaining or keyless. A key-retaining padlock prevents the key from being removed while the padlock is still open. Padlocks can also have a shrouded shackle. This is an extension of the body in which the padlock's shoulders extend up the sides of the shackle, making it much more difficult for bolt cutters to cut the padlock.



Figure 1: Different types of padlocks

The making of Aligarh locks is a traditional craft that involves skilled craftsmanship, attention to detail, and a deep understanding of metallurgy. While the techniques may vary among individual locksmiths, the following is a general overview of the traditional process involved in making Aligarh locks:

- 1. Material Selection:** The process begins with the selection of materials. Traditionally, Aligarh locks are made from brass, a metal known for its durability and resistance to corrosion. High-quality brass sheets are chosen for their malleability, allowing artisans to shape and manipulate them effectively.
- 2. Design and Pattern Creation:** Artisans create intricate designs and patterns for the lock. These designs may include floral motifs, geometric shapes, or cultural symbols, showcasing the artistic flair inherent in Aligarh locks. Patterns are often sketched directly onto the brass sheets.
- 3. Cutting and Shaping:** The selected brass sheets are then cut into the desired shape and size. Locksmiths use specialized tools, including shears and saws, to carefully shape the components of the lock. This step requires precision to ensure that the final product functions smoothly.



Figure 2: Cutting of cast iron



Figure 3: Left Material of Cast Iron

- 4. Embossing and Engraving:** The embossing and engraving process involves adding depth and detail to the lock's surface. Using chisels, hammers, and other engraving tools, artisans meticulously carve the chosen designs onto the brass. This step contributes to the ornate and decorative nature of Aligarh locks.

- 5. Assembly of Lock Components:** The various components of the lock, including the body, shackle, and internal mechanisms, are assembled. The internal mechanisms are crucial for the lock's functionality, and skilled locksmiths ensure that they fit together seamlessly. This assembly may involve the use of pins, springs, and other small parts.



Figure 4: Making of Combination Cam



Figure 5: Making of Back Cover



Figure 6: Making Of Outer Case



Figure 7: Making of Shackle Cover

6. Casting and Molding (Optional): In some cases, locksmiths may use casting or molding techniques to create specific components of the lock. This can involve creating a mold from an existing design and pouring molten brass into it to achieve consistent and intricate shapes.

7. Polishing and Finishing: Once the lock is assembled, it undergoes a polishing process to enhance its visual appeal. Polishing removes any imperfections, sharp edges, or discolorations. Artisans may use abrasive materials and polishing compounds to achieve a smooth and shiny finish.

8. Testing and Quality Control: Before the lock is considered complete, it undergoes rigorous testing to ensure its functionality and durability. Locksmiths check the key's fit, the smooth operation of the internal mechanisms, and overall security. Any necessary adjustments or refinements are made during this stage.

9. Final Inspection and Packaging: The finished locks undergo a final inspection to ensure they meet the desired quality standards. Once approved, they are carefully packaged for distribution or sale. Packaging may include protective measures to prevent scratches or damage during transportation.

It's important to note that while traditional craftsmanship methods endure, contemporary locksmiths in Aligarh may also incorporate modern technologies and materials to meet evolving market demands while preserving the essence of this centuries-old craft.

SAFEGUARDING OF THE TRADITIONAL CRAFTSMANSHIP OF LOCK MAKING

In order to ensure the longevity and sustainability of the traditional craft of lock making, a multifaceted approach is essential. Comprehensive documentation and archiving initiatives play a pivotal role in recording and preserving the intricate techniques, designs, and historical significance of Aligarh locks. Facilitating apprenticeship programs becomes crucial for the transmission of traditional skills from experienced craftsmen to the younger generation, ensuring that the nuanced artistry involved in lock making is passed down through hands-on learning. Educational outreach programs, collaborations with tourism boards, and the creation of digital platforms collectively contribute to raising awareness and promoting the rich cultural legacy of Aligarh's locksmithing heritage. Establishing artisan cooperatives and associations allows craftsmen to advocate for the protection of their traditional craft and address challenges collectively. Government support in the form of policies and incentives further bolsters the efforts to safeguard traditional craftsmanship. By embracing quality assurance measures, certification processes, and international collaborations, the locksmiths of Aligarh can not only ensure the authenticity of their craft but also elevate its visibility on a global stage. Through these concerted efforts, the traditional craftsmanship celebrated in the museological perspective becomes a resilient and thriving legacy, cherished by both local communities and a global market.

NATIONAL PROGRAMME FOR THE DEVELOPMENT OF INDIAN LOCK INDUSTRY

Government had taken some initiatives for the development of lock industries. And the programme objectives are:

- Technological upgradation of Indian Lock Industry.
- Upgradation of NSIC (National Small-Scale Industries) Technical Services Extension Centre, Aligarh to the level of the advanced tool Room & Training & Testing Centre, wherein the current processes and technology used by the Lock industry will be upgraded to that of international levels.
- Setting up of SPM (Special Purpose Machine) at the Aligarh centre as per Indian requirements for development of Pin Cylinder Mechanism.
- Creation of common facility Centre for the Lock artisan at Dindigul, Tamil Nadu.
- Establishing a marketing network by participating in International and National Fairs and conducting vendor development programmes. Sourcing of lock components by leading Lock manufactures (Godrej etc.).

National Small Industries Corporation Limited (NSIC) is a Mini Ratna PSU established by the Government of India in 1955. It falls under Ministry of Micro, Small & Medium Enterprises of India. NSIC in Aligarh also makes locks but the difference is that the locks made in NSIC are totally automatic. NSIC helps in organizing supply of raw materials like coal, iron, steel and other materials and even machines needed by small scale private industries by mediating with other government companies like Coal India Limited, Steel Authority of India Limited, Hindustan Copper Limited and many others, who produce this materials to provide same at concessional rates to small scale industries. Further, it also provides assistance to small scale industries by taking orders from Government of India owned enterprises and procures these machineries from small-scale industries units registered with them, thus providing a complete assistance right from financing, training, providing raw materials for manufacturing and marketing of finished products of small-scale industries, which would otherwise not be able to survive in face of competition from large and big business conglomerates. It also helps small scale industries by mediating with government owned banks to provide cheap finance and loans to budding small private industries of India



Figure 8: Front view of NSIC



Figure 9: Small Display of Locks in NSIC



Figure 10: Automatic machine of making dimple keys



Figure 11: Automatic machine for making of other parts



Figure 12: Worker's while operating machines



Figure 13: Student learning to operate machine.

OPPORTUNITIES AND THREAT OF TRADITIONAL CRAFTSMANSHIP OF LOCKSMITH

Traditional craftsmanship in locksmithing offers opportunities for artisans to showcase their skills and cater to niche markets, it also faces challenges due to technological advancements, global competition, and skills retention. Adapting to changing market demands, embracing new technologies while preserving traditional techniques, and investing in education and training are crucial for ensuring the continued relevance and viability of traditional locksmithing in the modern world.

Positive Impacts On Traditional Craftsmanship In Aligarh's Lock Industry

The traditional craftsmanship in Aligarh's lock industry has yielded several positive impacts, contributing to both the local economy and the cultural fabric of the region. The lock industry has been a significant source of employment for the local population. Skilled craftsmen, apprentices, and workers across various stages of production find opportunities within this sector, thereby reducing unemployment and providing livelihoods for numerous families. In recent years, there has been a noticeable increase in the participation of women in Aligarh's lock industry. Women are involved in various aspects of the business, including manufacturing, quality control, and management roles. This has challenged traditional gender norms and empowered women to become economically independent. The continuation of traditional craftsmanship helps preserve this heritage, ensuring that age-old techniques and designs are passed down through generations. This not only maintains cultural identity but also fosters a sense of pride within the community. The lock industry contributes to the economic growth of Aligarh and surrounding areas. It generates revenue through exports, domestic sales. Moreover, ancillary businesses such as raw material suppliers, transportation services, and packaging companies benefit from the industry's activities, creating a multiplier effect on the local economy. Traditional craftsmanship requires specialized skills and knowledge. By engaging in this industry, artisans have the opportunity to refine their craft and expand their expertise. This continuous skill development not only enhances the quality of locks

produced but also increases the market value of artisans' work, leading to better income prospects. While rooted in tradition, the lock industry in Aligarh has also embraced innovation and adaptation. Craftsmen incorporate modern technologies and materials to enhance efficiency and product quality. This balance between tradition and innovation ensures the industry's relevance in a rapidly changing market landscape. As mentioned above a traditional craftsman from Aligarh named Satya Prakash Sharma recently gave the world's largest lock and key to the Ram Mandir Trust, weighing 400 kg, because they continued to maintain their craftsmanship. This global acclaim enhances the city's reputation and promotes cultural exchange. The traditional craftsmanship of Aligarh attracts visitors and enthusiasts interested in witnessing the artistry firsthand. Visitors have the opportunity to witness the intricate process of lock making firsthand, fostering appreciation for the region's artisanal heritage.

Negative Impacts On Traditional Craftsmanship In Aligarh's Lock Industry

The traditional craftsmanship in Aligarh's lock industry, while culturally significant, is unfortunately plagued by several negative impacts. One of the most pressing issues in the Aligarh lock industry is the prevalence of child labour. Children, often from marginalized communities, are employed in manufacturing units where they perform hazardous tasks such as polishing, assembling, or working with machinery. This exploitation deprives children of their right to education and exposes them to physical and psychological harm. Artisans working in traditional lock manufacturing are often exposed to various health hazards. Specific chemicals used in locks manufactured in Aligarh, India, which may pose health and environmental risks include hexavalent chromium compounds, lead compounds, benzene, formaldehyde, trichloroethylene (TCE), cadmium compounds, and isocyanates. Hexavalent chromium compounds are utilized in metal finishing processes like chrome plating, posing carcinogenic and toxic risks if inhaled or ingested. Lead compounds, historically used in metal alloys, can lead to severe health issues, especially in children, affecting the nervous system and other organs. Benzene, employed as a solvent in cleaning and degreasing processes, can cause leukaemia and other blood disorders with prolonged exposure. Formaldehyde, present in adhesives and resins, is a known carcinogen and can induce respiratory and skin irritation. Trichloroethylene, used in metal degreasing, is linked to liver and kidney damage and cancer. Cadmium compounds, found in metal plating, can lead to lung and kidney damage. Isocyanates, common in adhesives and coatings, may cause respiratory issues and allergic reactions upon inhalation. The traditional lock industry in Aligarh often operates in the informal sector, with limited regulation and oversight from government authorities. This lack of support makes artisans vulnerable to exploitation by middlemen and manufacturers who may pay unfair wages or provide substandard working conditions. Furthermore, the absence of government initiatives to promote and protect traditional craftsmanship hinders the industry's growth and development. Many artisans involved in traditional lock making come from economically weaker section of society with limited access to education. As a result, they may lack basic literacy and numeracy skills, which hinders their ability to negotiate fair wages, understand their rights, or access government support programs. This perpetuates a cycle of poverty and exploitation within the industry. Traditional lock craftsmen in Aligarh often struggle to access broader markets due to factors such as lack of marketing skills, limited exposure to modern sales channels, and difficulty in meeting quality standards required for export markets. This limited market reach confines artisans to local or regional markets, reducing their earning potential and inhibiting business growth. Artisans in the Aligarh lock industry frequently work through intermediaries or middlemen who control access to raw materials, market outlets, and financial resources. These middlemen often exploit artisans by paying low wages, imposing unfair working conditions, and extracting excessive profits, further perpetuating the cycle of poverty and dependency among craftsmen. The combination of these negative factors, including child labour, health hazards, lack of government support, and educational barriers, contributes to the stagnation and decline of traditional craftsmanship in the Aligarh lock industry. Without intervention and support, this decline threatens the survival of age-old artisanal practices and cultural heritage.

CONCLUSION

Locks were regarded one of the artifacts for the ethnographical collection, and they are part of the living legacy that is preserved for the future. As Aligarh is considered as "The City of Locks" or "Tala Nagri", and its history is 125 years old. In future there is a scope of lock museum establishment in Aligarh, as the city is known for the lock. Locks and Keys are no less worthy of attention. In fact, it's sometimes said that the craft of the locksmith is the second oldest profession! Certainly, man's possessions have always been coveted and therefore the need to keep them secure has been a necessity from the earliest times.

In Aligarh, the lock industry holds a unique position with distinct aspects that contribute to its prominence. The city has a rich tradition of craftsmanship, where skilled artisans employ traditional methods, often passed down through generations, to create locks known for their precision and craftsmanship. Artisan's involved in this industry should be awarded about the health hazards of using different chemicals and they must be educated to take precautionary measures while exposing to those chemicals. Aligarh's lock industry has embraced technological advancements, incorporating electronic and smart lock technologies, aligning with global trends in security. The industry is marked by the focus on design innovation, producing a diverse range of locks to meet various security needs. Additionally, the global supply chain, market international quality benchmarks. This unique blend of tradition, technology, and market awareness has positioned Aligarh as a significant hub in the global lock industry. The research paper provides a comprehensive overview of the traditional craftsmanship of locksmiths in Aligarh, India, from its historical significance to its contemporary challenges and opportunities. Through a museological perspective, the paper highlights the importance of safeguarding this intangible cultural heritage, documenting the intricate techniques and designs passed down through generations. The

traditional craft of lock making in Aligarh has not only shaped the local economy but has also contributed significantly to the cultural identity of the region. Despite facing challenges such as globalization, technological shifts, and changing consumer preferences, the locksmiths of Aligarh have demonstrated resilience and adaptability. Their ability to navigate complexities and embrace change underscores the enduring legacy of their craftsmanship. Authors proposes the establishment of a museum dedicated to the traditional craftsmanship of locksmiths in Aligarh as a means of preserving and showcasing the city's distinct cultural heritage. Such a museum would serve as one of its kind which will be a repository of Aligarh locks, tools, and artifacts, providing visitors with insights into the intricate techniques involved in lock making.

Furthermore, the paper emphasizes the importance of comprehensive approaches to preserve traditional craftsmanship, including documentation, skill transmission, educational outreach, market diversification, and collaboration with stakeholders. By embracing innovation while honouring tradition, the locksmiths of Aligarh can ensure the continued vibrancy of their craft for generations to come. In alignment with initiatives such as the "Ek Sheher Ek Udaan Yojna," the proposed museum would not only contribute to cultural preservation but also foster sustainable and economic development in the region. Through collaborative efforts and support from government bodies, local communities, and international organizations, the preservation of Aligarh's traditional craftsmanship can serve as a model for safeguarding cultural heritage worldwide.

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