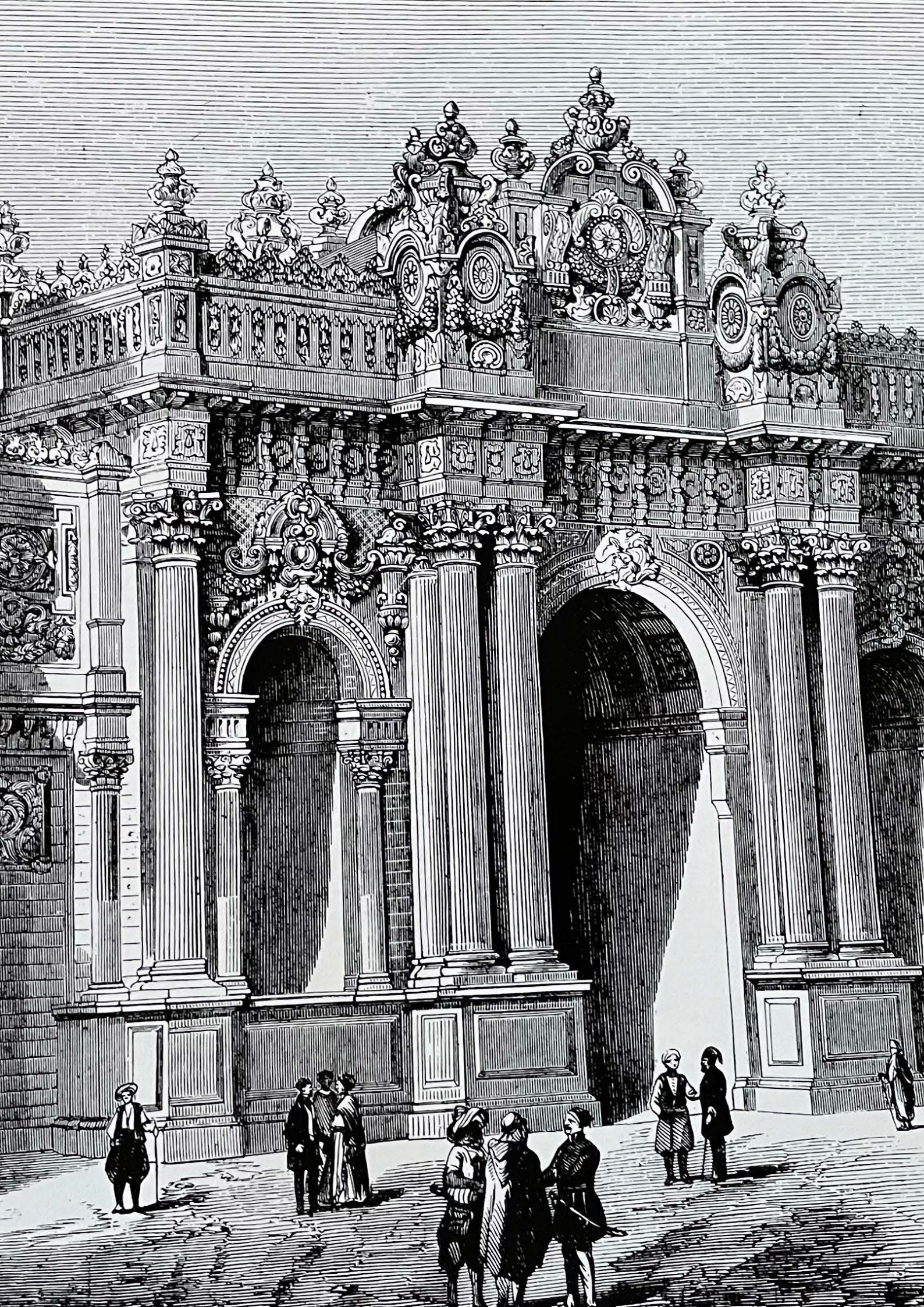

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Back Door' Masters and the Familial-Entrepreneurial Transmission of Construction Knowledge in the Building of Dolmabahce Palace, Istanbul, in Late Ottoman Empire

Abstract

By focusing on gender formation under capitalism, this paper reveals how the industrial construction system in the 19th century kept women away from constructions in the late Ottoman Empire, which contrasts with the active trace of women involved in different aspects of construction in earlier periods. The paper demonstrates how the significant gender divide in construction in the late Ottoman period arisen due to external pressure from industrialised Europe and the propagation of colonial modernity. Drawing from my research on the construction of Dolmabahce Palace — one of the first buildings where new construction techniques, materials and systems of management were used — the paper provides evidence of builders' workshops in which women played crucial roles in acquiring, developing and transmitting specialised construction skills alongside family members in the Ottoman Empire. While the use of machines and information about construction details were mainly controlled and passed on amongst male masters coming from Europe and architects trained in Paris or other European cities, women were the 'back door masters', as significant professional partners of their fathers, brothers or husbands, of jointly developing and organising the transfer of new technologies and construction applications amongst the networks of influential families and specialised workshops and trades.

Despite the segregation of categories of work and classifications of skills in the arising construction system that serve the demands of the expansion of colonial modernity, transitions between categories were possible in the lives of families and women with knowledge and skills were agency that connects the interlayers between different subjects and social domains. While women were kept away from formal constructions that built according to the principles of industrialization in 19th century, in workshops women actively

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continue to contribute to innovation of construction technology, which were often only attributed to their father or other male family members in the gendered historical documentation. Moreover, in the informal areas of the city, women participated in the construction process alongside family members as part of a culture of mutual support. Buildings that make up the majority of the city and are considered informal are, in fact, the primary force of formation of urban fabric, towards which women as 'back door' masters should be recognised.

Keywords
Women, Construction, Workshop, Industrialization

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She presented her paper 'Blurring Bodies in Construction:Women Builders and Makeshift Environments in Zeytinburnu, Istanbul' at the Architectural Humanities Research Association (AHRA) 21st International Conference 'Body Matters', 21–23 November 2024, which took place at the Norwich University of the Arts. She was one of the two key organisers of the AHRA PhD symposium 2024 - 'Invisible Actants: undoing, remaking and building-with' – at the Arcitectural Association Scool of Architecture.

[Cover] Entrance gate of Dolmabahce Palace in 1853, shown in an unfinished state. Illustrated London News. Celik Gulersoy, Dolmabahce Palace and Its Environs (Istanbul: Turing Publication, 1983), 49.

In Turkey, some construction materials are produced in workshops where family members worked together. Such workshops are traditional and relied on family labor due to its low cost. In ironworking, carpentry, and stone workshops, women and children worked alongside other family members, acquiring technical knowledge and skills. Family workshops did not operate according to a rigid gendered division of labor, but it is still gendered and contingent on other criteria such as physical ability, experience, kinship, and dependency. Women are not always victims; they are also complicit in some ways to support qualities by aligning with and performing power. In doing so, they occupy positions of authority. It is important to give nuance to women's lived experiences and allow them to be returned in history. In the nineteenth century, production for large-scale construction projects was carried out not in centralized factories but in dispersed workshops organized around a central. However, with the rise of industrialization, the number of such workshops declined. Industrialization was strongly desired by the Ottoman Empire, and this process at times quite violent; structural and material violence isolates and singles out bodies, labour, and resources in order to make them countable. The palace, in this context, occupied a complex position within colonialism, shaped by multiple and overlapping layers of forces. I approach coloniality not primarily through oppositional or hierarchical frameworks, but rather through a field of negotiations shaped by a horizon of competition, interdependence, and contingent relations. Drawing on Deleuzian nomadology, I conceptualize history not as unfolding along a centralized axis, but as emerging from dispersed, mobile, and relational processes. This perspective allows coloniality to be understood not as a unidirectional imposition of power from a center to a periphery, but as a dynamic assemblage produced through shifting encounters, uneven exchanges, and situated practices. Such an approach foregrounds multiplicity, mobility, and relationality, opening space to subalterns. This study investigates how industrialization reshaped construction practices and family workshops, particularly in relation to gender roles, in the Ottoman Empire, in the nineteenth century. The research employs anthropological research methods. It combines a critical review of historical and contemporary cultural contexts and power structures, with interviews and first-hand conversations. Archive research mainly focuses on finding material related to women's construction examples in Ottoman. Archives about women and construction in Turkey have been visited.

Family workshops, operating in the background of construction teams, contribute to material and construction relations by crossing gender divisions, professional boundaries, and hierarchical structures. In her book "Architecture and Material Politics in the fifteenth Century Ottoman Empire" Patricia Blessing discusses the mobile workshops that existed in the Ottoman Empire in the 15th century and the creative buildings that emerged from the experimental work carried out in these workshops. Regarding the fifteenth century, Blessing explains that: "the mobility of workers was central to the material politics of Ottoman architecture."[1] Regarding family production in the Ottoman Empire, Kadriye Yılmaz claims that:

> *The family, as a unit of production, plays an important role not only in agricultural production in rural farmlands but also in various economic activities in towns and cities. In these families, women participate in production alongside men and constitute a significant part of the workforce… Here, it should immediately be noted that the participation of genders in the production process in ways compatible with their physiological characteristics cannot be regarded as a gender-based division of labor.* [2]

Regarding the level of women's participation in family enterprises, Cengiz Kirli states that:

> *When masters lived in their own shops or at least in the same building, as was relatively common in Istanbul around 1800, such informal participation by wives and daughters in the production process may have been more frequent than we assume.*[3]

Although women worked in family workshops in the Ottoman Empire, they were rarely mentioned in documents or only referred to superficially. This paper examines family workshops involved in the construction of Dolmabahce Palace in nineteenth-century Istanbul. Women, as largely invisible actants, played crucial roles within these workshops and thus in the construction process, yet they remain absent from historiographies.

The nineteenth century in the Ottoman Empire was a period of socio-economic and political change, during which industrial systems began to be used in construction. In this era, industrial materials, techniques, and labor organization were introduced

1. Patricia Blessing, *Architecture and Material Politics in the Fifteenth-Century Ottoman Empire* (Cambridge University Press, 2022), 13–14, 217–18.
2. Kadriye Yılmaz Koca, *Women and Economy in the Ottoman Empire* (Osmanlıda Kadın ve Iktisat), trans. Arzu Kusaslan (Beyan Publications, 1998), 49.
3. Cengiz Kirli, "A Profile of the Labor Force in Early Nineteenth-Century Istanbul," *International Labor and Working-Class History* 60 (2001): 125–40, cited in Suraiya Faroqhi, *Artisans of the Empire: Crafts and Craftspeople Under the Ottomans*, trans. Zulal Kılıc (2011), 300.

into building practices, affecting traditional family workshops. A contemporary family carton-pierre workshop, Zanaat workshop, that worked on the construction of Dolmabahce Palace in Istanbul is examined as a model. Women working in workshops that are absent from the historiography of palace construction, as well as the transformations of family workshops under industrialization, are narrated and, where necessary, speculated upon based on existing evidence.

I will share my personal journey of searching for traces of women involved in Dolmabahce Palace construction.

> *When I spoke with architectural historians in Turkey about Dolmabahce Palace, they told me that it would be impossible to find any information about the contribution of ordinary women on construction, because there were no published writings on this subject. With a bit of luck and some lateral research on popular social media, I found a carton-pierre workshop called Zanaat that had worked on the construction site of this building and has survived to this day. I used Google to find the current location of the workshop and the name of its owner. After watching YouTube videos about this workshop, I found out the name of one of Kemal Cimbiz's daughters, Esin Avcıer. Esin Avcier (born 1971) recounted the story to me of how "she began working in her father's workshop at the age of seven' and how 'they were six siblings—five girls and one boy—and they all worked in the workshop'.*

In his book 'The Balyans in Interior and Exterior Architecture', Ashot Haykazun Grigoryan describes the Cezayirliyan carton-pierre workshop, which was involved in the construction of Dolmabahçe Palace, and the contemporary Zanaat workshop as continuation of Cezayirliyan workshop. Family workshops have continued to operate in both the Ottoman Empire and present-day Turkey. In this study, Zanaat carton-pierre workshop is chosen as a model for other workshops that are very common and traditional, as it is a continuation of the Cezayirliyan carton-pierre workshop that worked on the construction of Dolmabahce Palace in the nineteenth century. The study speculates on the workshops involved in the palace's construction based on factual evidence in order to push the limits of archive. Although women worked in these workshops, they are largely absent from written sources.

Alternative Historiography

Scholars working on alternative historiography address the exclusions embedded in conventional historical writings. They seek to recover the presence and agency of invisible actants—including women, migrants, laborers, racialized subjects, and even non-human agents—who have been historically marginalized or rendered absent within historiography.

Ariella Azoulay's companionship historiography is grounded in a responsibility-based mode of relation among people, objects, and documents, one that emphasises co-existence and the sharing of obligations. The concept of companionship makes it possible to read nineteenth-century Ottoman construction history not as a completed and closed period, but as an ongoing history sustained through spatial and material relations that continue into the present. From this perspective, construction activities are understood not solely as state-centred processes of modernisation and industrialisation, but as the outcome of relational networks formed among workshops, artisans, materials, and techniques. This approach further enables the investigation of the positions of women and labourers within these networks of relations, rendering visible actors and forms of participation that are often marginalised in conventional architectural historiography.

The approach to construction history in the field of architecture, particularly heightened in the C19th consequence to the forces of Enlightenment, the rise of scientific objectivity and the sense of progress driven by industrialisation, is characterised by 'separation', asserted through the framework of object–subject dichotomy and epistemic categorisation. A significant effect of such a tendency, exemplified through the rise of historical materialism, is that the history of construction largely followed the so-called 'objective' facts and evidence, but in doing so, it excludes the person, which is the subjective aspect of history that needed to be separated from the objective construction. The architects, master builders, and workers are not fixed, closed entities, i.e. they should not be reduced to the assigned subjectivity, but they are at the same time partners, teachers, wives, daughters, and companions, and they have families, relatives, and friends. They are not merely 'subjects of labour'. The intention of the research is to formulate an alternative approach to address questions of materials, processes, protagonists and evidence in the production and transmission of construction knowledge in this period to disrupt the separation of subject and object, and to trace how they are mutually produced and related. In the Ottoman context, the mobile and nomadic character of workshops enabled masters to acquire different skills. Regional masters migrated from one construction to another. There were family and community networks among these masters, and they exercised agency in developing new styles. Patricia Blessing argues that:

> *How elements of Mamluk architecture were introduced into Ottoman architecture – quite likely along with the presence of traveling builders fifteenth century itself, when a wide range of elements drawn from the Mediterranean, Anatolia, and Iran and Central Asia were integrated into Ottoman architecture, both through the contributions of workers from these regions and*

Figure 1. Preparation of carton-pierre molding dough in Zanaat Workshop. Gazete Duvar.

Figure 2. Placing the carton-pierre molding dough into the mold in Zanaat Workshop. Gazete Duvar.

> *through the wide-ranging networks of exchange of ideas in which the Ottomans actively participated.*[4]

These mobile and nomadic workshops, absorbed specialized knowledge as they moved, reflecting broader modes of imperial governance in the 15th century. This system operated through horizontal relations and regional expertise. A nomadic perspective on power and the organization of construction help us to understand the complex layers of colonial forces between the Empire and the West in the nineteenth century. There were powerful families in the Empire, such as the Balyan family, whose members went to Paris for architectural education and returned to combine European architectural styles with local traditions. Ottoman Orientalism, as an effect of Westernization, became widespread among members of powerful Ottoman families who were educated in Europe. Ussama Makdisi describes Ottoman Orientalism as "a complex of Ottoman attitudes produced by a nineteenth-century age of Ottoman reform that implicitly and explicitly acknowledged the to be the home of progress and the East, writ large, to be a present theater of backwardness."[5] There is no the same degree of horizontality in the nineteenth century; instead, it becomes more hierarchical. The orientalization of subjects reflects the effects of colonial powers within the Empire. Workers and masters continue to migrate today to participate in large-scale constructions. Within family workshops, backdoor masters learn know how, develop their skills, and transmit them to the next generation.

Backdoor Masters

This is the story of the Zanaat workshop where Esin Avcıer worked with her family, acquired know-how there, and participated in processes of material transformation. In the workshop the method of preparing the carton-pierre molding dough and the pattern in the mold reminds us the role of women in the development of this technology. Figure 1 and 2 show the preparation of carton-pierre molding dough and its placement into the mold in Zanaat workshop.

In workshops, female backdoor masters like Esin Avcıer were embedded in responsibility-based relationships with other workers and with materials; these relationships were grounded in co-existence and collective production. Connections existed not only within individual workshops but also among different workshops, extending to material suppliers and other actors involved in construction. Such ties and networks were continuous and enduring, carried from the past into the present.. During the construction of Dolmabahce Palace, the plasterer Persah Cezayirliyan was brought from Kayseri by the Balyan family and the Balyans established a carton-pierre workshop for him.

Kemal Cimbiz, who is the fourt generation of the workshop, defines the Cezayirliyan workshop as a family workshop in a documentary produced by Duvar Gazete and he states,

> *Here (in the garden of Dolmabahce Palace), the master (Persah Cezayirliyan) begins producing molds and models together with his team and family in the workshop... this workshop was established by a family (Cezayirliyan) that produced all the interior ornamentation and mirror frames of Dolmabahce Palace.*[6]

4. Patricia Blessing, *Architecture and Material Politics in the Fifteenth-Century Ottoman Empire* (Cambridge University Press, 2022), 13–14, 217–18.
5. Ussama Makdisi, "Ottoman Orientalism," *The American Historical Review* 107, no. 3 (June 2002): 768–796.
6. *Gazete Duvar*, Istanbul, April 2023.

Transition in Construction Techniques in the Nineteenth-Century Ottoman Empire

Dolmabahce Palace, constructed between 1846 and 1853, which is the period that Ottoman construction system was transformed by western influence. Industrial materials and construction techniques were imported from the UK and other European countries. The colonial power relations between the Ottoman Empire and the West were complex. The Ottoman Empire desired industrialization, but it has been bad. The consequence of these two dynamics was embracing of bigger chance. Sometimes industrialization was violent, and violence isolates and marginalizes groups in order to make them countable. Industrial construction technics altered work relationships. Many stone, wood, masonry, and other craftsmen who had previously worked on a piecework basis in construction began working in factories.. Some craftsmen, however, installed steam-powered machines in their workshops and began producing for the construction market. In these workshops, women learned to operate the machines from family members.

The Domabahce palace was built in a European style by the Armenian-origin Balyan family. Traditional craftsmen and artisans arriving from Europe worked together during its construction. Architect James Smith, who came to Istanbul to rebuild the burned British Embassy and constructed the Glass Pavilion at Dolmabahce Palace using industrial materials and technic in 1853. In addition, beyond the pavilion in the palace construction, Aygur Agır et al. claims that Smith "worked especially on the monumental staircase and its roofing…he had helped procure materials from foreign countries for the palace."[7] Afife Batur explains that "patterned glass and cast iron structure manufactured in The United Kingdom."[8]

The Great Exhibition held in London in 1851 influenced the palace construction, which was ongoing at the time. Onder Kucukerman and Suha Erda state that "most of the glass panels located above the fireplace in the palace's Entrance Hall (Medhal Salonu) were exhibited at the London Exhibition and were also featured in its catalogues."[9] New construction techniques coming from outside the empire had different logics. Material, worker, and the construction were repositioned; all three were rendered passive and treated as objects, and women were excluded from the construction process.

7. Aygül Ağır et al., "An English Architect in Nineteenth-Century Istanbul: William James Smith and Taşkışla," *ITU A|Z 12*, no. 2 (July 2015): 93–101.
8. Afife Batur, "Dolmabahçe Sarayı'nda Bir İngiliz Mimar: William J. Smith ve Camlı Köşk (An English Architect at Dolmabahce Palace: William J. Smith and the Glass Pavilion)," trans. Arzu Kusaslan, Milli Saraylar: *Journal of Culture, Art, and History*, no. 8 (2011): 15. Published by the Grand National Assembly of Turkey, Directorate of National Palaces.
9. Onder Kucukerman and Suha Erda, *Osmanlı İmparatorluğu'nun Değişiminde Önemli Simge: Dolmabahçe Sarayı'nın 150 Yılı*, trans. Arzu Kusaslan (n.p.: n.p., n.d.).

Figure 3. Glass pavillion in Dolmabahce Palace. SALT Research Archive, Istanbul.

The speculative Narrative of Backdoor Masters in the Construction of Dolmabahce Palace

Archival sources on the construction of Dolmabahce Palace are limited, and women are absent from the documentation of the building process. This absence reveals a gap between historical records and lived realities. Although family workshops were widespread and traditional, women's production within these places remains largely undocumented. This study uses a contemporary carton-pierre workshop as a model and, drawing on available evidence, speculates on the family workshops that may have contributed to the palace's construction in order to address this gap in the historical narrative.

Drawing attention to the disjunction between historical narratives and lived experiences, and seeking to make the unknown visible, Saidiya Hartman develops a method she terms "critical fabulation," which writes between the factual and the fictional and advances speculative arguments to push beyond the limits of the archive. In her essay Venus in Two Acts, Hartman argues that:

> *By playing with and rearranging the basic elements of the story, by re-presenting the sequence of events in divergent stories and from contested points of view, I have attempted to jeopardize the status of the event, to displace the received or authorized account, and to imagine what might have happened or might have been said or might have been done. By throwing into crisis "what happened when" and by exploiting the "transparency of sources" as fictions of history.*[10]

Today, the Zanaat Workshop, which is the contemporary continuation of the Cezayirliyan workshop, houses carton-pierre molds and models from the construction of Dolmabahce Palace. The models shown in Figure 4 are of the entrance of the palace's music room. The master first produced these models, then took molds from them, which were filled with carton-pierre to produce the decorative motifs used in Dolmabahce Palace.

I will write a backdoor master's story set in the carton-pierre workshop during the construction of Dolmabahce palace, speculating her narrative based on factual evidence, describing both her technical and personal spheres. I will connect her personal relationships and experiences to the embodiment of material knowledge and know-how.

Figure 4. Door entrances and door motifs of Sultan Abdullaziz music room in Dolmabahçe Palace. Gazete Duvar.

Figure 5. Tools used by Persah Cezayirliyan to shape carton-pierre motifs. Gazete Duvar.

She leaves her home in the morning to go to her father's carton-pierre workshop.. She begins working with carton-pierre, mixing newspaper, glue, and chalk in the morning. She places the carton-pierre paste she has prepared into the mold and, after waiting for a while, removes the motif. She lays it on a flat surface and covers it with a damp cloth, leaving it overnight. When she returns in the morning, she dissolves bead glue in hot water and applies it both to the surface where the motif will be placed and to the back of the motif, then attaches it. She secures it to the surface with nails. She learned these skills from her father. In her spare time, she sometimes experiments by adding different materials to the mixture, trying new recipes to increase the material's durability. She talks with her father, who shows her new patterns recently arrived from Europe. One of these designs is intended for the music room. Together, they try to make the first mold from these patterns. As they shape the musical instrument motifs, they use her father's pen-like tools.
Her uncle and other apprentices also work in the

10. Saidiya Hartman, *Venus in Two Acts, Small Axe*, Number 26 (Volume 12, Number 2), June 2008, pp. 1-14 (Article), Published by Duke University Press. Page 11.

workshop. Children from families they know are taken on as apprentices from the age of seven, beginning by sweeping the workshop and gradually learning the craft. Masters become like parents to these children, and even when apprentices later leave to open their own workshops, the bonds continue. Strong kinship ties persist, and community networks facilitate marriages among the young.
She went to the stone workshop, picked up a stone, and discussed with the stonemason how carton-pierre should be applied to the bare wall surface. Then she returned to the workshop.

There is documentary evidence of women working as stonemasons in the Ottoman Empire. The document in Figure 6 is taken from an Ottoman financial ledger. The ledger dated 1760 records the names and signs of individuals operating stone quarries in the Davutpasa district of Istanbul. One of these quarries was owned by a woman named Zeynep.

She talked with her friends about the paints used on carton-pierre surfaces. Her friends work as painters and purchase their paint materials from the Thursday Market.

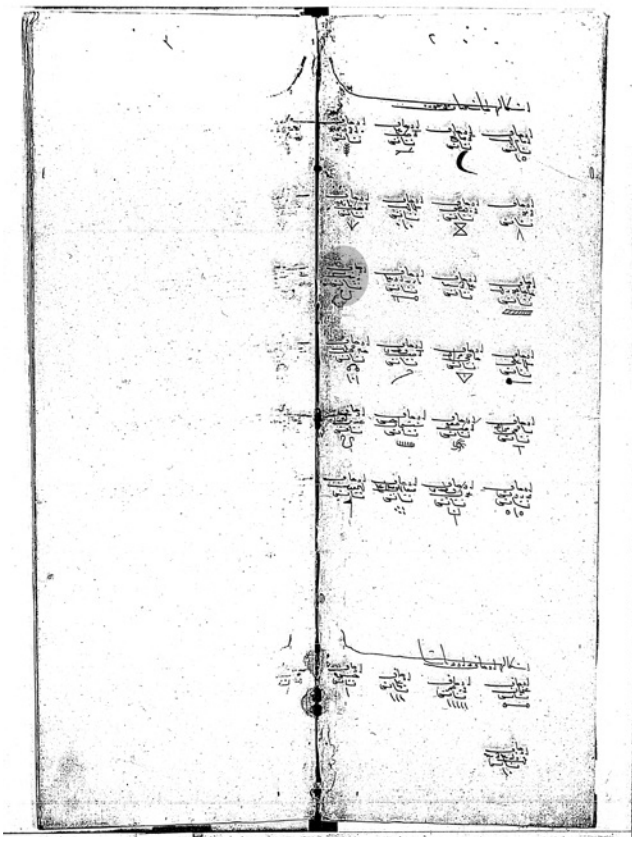

Figure 6. Stonemasons' signs indicating their descriptions and names, along with the signs showing the descriptions of the stonemasons from the Davudpaşa Quarry. President Ottoman Archive (BOA MAD.d., Ledger (Defter) no: 1326, 2.

Ottoman Women

Ottoman Women could inherit land and property. They could buy and sell land and their property and can make commercial agreements. Fariba Zarinebaf-Shahr claims that:

Women also maintained business relations as owners of urban property and workshops and served as tax farmers… women appeared as litigants and defendants in more than forty percent of all lawsuits and property transactions in the Islamic courts of Istanbul, Cairo, Aleppo, Damascus, Kayseri and Cyprus. They came to the courts from all over to register sales, purchases, and loans, and to set up private and charitable endowments.[11]

Women in the Ottoman Empire established and managed waqfs (charitable foundation). According to Gabriel Baer, "by the mid-sixteenth century in Istanbul, the number of women who founded waqfs constituted slightly more than one-third of all foundations."[12] Women could become guild members through inheritance in the nineteenth century. Fariba Zarinebaf-Shahr explains that "Aleviye Hanim purchased a quilt shop in the district of Galata in Istanbul in 1864."[13]

Conclusion

While formal imperial constructions were carried out in the city of Istanbul, women worked together with their family members in the workshops that produced and applied materials for these constructions. Engaging directly with the materials and acquiring technical knowledge from their relatives, they cultivated implicit and tacit construction knowledge. These women as backdoor masters and invisible actants influenced the construction process of formal imperial buildings. They are not mentioned in historical records. In Istanbul today, numerous backdoor masters still contribute to formal construction processes through workshops. The embodied skills of material transformation continue to persist in contemporary workshops. Information about these women rarely appears in archival sources, as workshops are typically identified through the

11. Fariba Zarinebaf-Shahr, "The Role of Women in the Urban Economy of Istanbul, 1700–1850," *International Labor and Working-Class History*, no. 60 (Fall 2001): 141–52.
12. Bedriye Yılmaz and Miyase Koyuncu Kaya, *Women in Classical Ottoman Society* (Klasik Osmanlı Toplumunda Kadın), trans. Arzu Kusaslan (Berikan Yayınevi, 2022), 284.
13. Istanbul Müftülük Archives, Sicil 1/218, fols. 12b–13a:1, cited in Fariba Zarinebaf-Shahr, "The Role of Women in the Urban Economy of Istanbul, 1700–1850," *International Labor and Working-Class History*, no. 60 (Fall 2001): 141–52.

names of fathers, husbands, or brothers. This absence points to the need for expanding the archive to include alternative forms of evidence capable of accounting for subaltern groups.

In the nineteenth century, the workshops involved in the construction of Dolmabahce Palace and the networks connecting them were built upon relational systems inherited from earlier centuries. In the fifteenth and sixteenth centuries as well, deterritorialized, family-scale workshops operated in relation to territorialized, formal construction sites, and within these workshops backdoor masters played an active role. This family-based system of work was relatively inclusive, enabling women to acquire skills through collective workshop practices. This family system of work was largely dismantled under capitalism. There is a significant gender divide in construction in the late Ottoman period arisen due to external pressure from industrialised Europe and the colonial modernity. In the late nineteenth and early twentieth centuries, some family workshops were transformed into factories, others adapted to changing conditions by purchasing new steam-powered machines, and some closed altogether. In workshops that became factories—for example, carpentry workshops—women and men worked in segregated spaces, and women did not operate steam-powered machinery. Knowledge of using wood-cutting machines was transmitted to men. Houses that had previously been built using traditional methods, with women participating as part of communal construction practices, began to be constructed with standardized timber materials. The new techniques used to build these two- or three-story houses were not taught to women. At the same time, women working as backdoor masters in family workshops learned to operate these machines from male relatives. Today, women can be found operating heavy machinery in family-run carpentry workshops.

Figure 7. Painter Women, Boghos Tatikian, Lithograph, 1893. Ataturk Library in Istanbul. Note: Gift made by H.I.M. the sultan Abdul-Hamid II. To the National Library of the United States of America, 1893.