

# LIVING CONDITIONS IN HOUSES OF ISTANBUL DURING THE 17<sup>TH</sup> CENTURY: A READING OF KADI REGISTRIES

## 17. YÜZYIL BOYUNCA İSTANBUL EVLERİNDE YAŞAM KOŞULLARI: KADI SİCİLERİNDEN BİR OKUMA

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### Abstract

Written Ottoman sources containing important information about cities and housing afford a broad base of data for Ottoman urban and architectural history. Among such sources, *Kadı* Registries hold exceptional significance for understanding the living conditions in houses of Istanbul (*Suriçi*) during the 17th century. Such registries contain detailed information about Ottoman houses at the time, including about the sale of property and transactions involved therein, *rehin* ('mortgages'), housing rentals, granting ownership rights, the inheritance of property, the establishment of waqf foundations, estimated costs of housing repairs, and, perhaps above all, the spatial configurations of residences. Moreover, the quantitative analysis of such information makes it possible to identify the spatial components of Ottoman houses, as well as clarify the availability of space for housing, determine which spaces were typical and which were luxury, and, in turn, evaluate the living conditions of urban residents from different social strata. With reference to the *Kadı* Registries of Istanbul, Bab and Rumeli, this article characterizes the living conditions and spatial standards of city dwellers in Istanbul during the 17th century, as well as discusses both changes and continuity in housing and, more generally, situations of urban living at the time.

**Keywords:** Istanbul, 17<sup>th</sup> century, house, Ottoman, living condition, *Kadı* Registries.

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## Özet

Osmanlı yazılı kaynakları Osmanlı kent ve konut tarihi arařtırmaları için önemli bilgiler sunmakta ve geniş ve zengin bir veritabanı oluřturmaktadır. Kadı Sicilleri bu kaynaklar arasında önemli bir yer tutmaktadır. Bu bağlamda, bu makale, modernleşmenin eřiğindeki bir dönemde, 17. yüzyılda İstanbul Suriçi bölgesindeki evlerdeki yaşama koşullarını anlamak adına, İstanbul, Bab ve Rumeli Kadı Sicillerine başvurmuştur. Sözkonusu sicillerde evlerle ilişkili satış, rehin verme, hibe etme, vakfetme, kiralama, kiraların devredilmesi, hisse veya miras paylaşımı, muhalefat işlemleri veya onarım için yapılmış keşif işlemleri gibi pek çok konuda dava yer almaktadır ve davalarda mekan tarifleri yapıldığı için ev içi mekan bileşenlerine ilişkin detaylı bilgilere ulaşılabilmektedir. Bu bilgiler ışığında bileşenlerin neler olduğunu sorgulamanın yanı sıra, İstanbul Suriçi bölgesinde yer alan evlerin mekan tariflerindeki bilgiler sayısal verilere dönüřtürülerek kantitatif olarak analiz edildiğinde, bu bileşenlerin her biriyle kent genelinde karşılaşma sıklığı üzerine fikir yürütmek mümkündür. Bu bilgiler bize, evlerdeki hangi bileşenlerin olağan olduğunu, hangilerinin ise lüks kapsamında değerlendirildiğini gösterir. Böylece olağan kentlilerin de, varlıklı kesimin evlerinin barınma ve yaşama koşulları hakkında değerlendirme yapılabilecektir. Makalenin amacı da, Suriçi İstanbul'da yaşayan kentlilerin yüzyılın başından sonuna kadar gündelik yaşamlarını geçirdikleri evlerindeki bu koşulları ve mekanlarına dair standartları belirlemek; veriler ve analizler üzerinden evlerin mekansal koşullarında bu bağlamda yaşanan deęişim ve süreklilikleri de dięer yüzyıllarla karşılařtırmalar yaparak irdelemek ve tartışmaktır.

**Anahtar kelimeler:** İstanbul, 17. yüzyıl, Ev, Osmanlı, Yaşam Koşulları, Kadı Sicilleri.

## INTRODUCTION

To date, research by architectural historians on Ottoman dwellings has focused mostly on 19<sup>th</sup>-century structures that still stand today. More recently, however, studies involving new approaches to interpreting written sources have revealed that Ottoman houses prior to and during the 18th century differed drastically from how they have typically been characterized by scholars. Indeed, detailed information about houses available in written Ottoman sources traditionally used only by historians affords a broad base of quantitative data about trends not only in housing but also in living conditions in Ottoman cities. Among those sources, *Kadı* Registries offer an abundance of data about houses, including about the sale of property and transactions involved therein, *rehin* ('mortgages'), housing rentals, granting ownership rights, the inheritance of property, the establishment of waqf foundations, estimated costs of housing repairs, and, perhaps above all, the spatial configurations of residences. Subjected to analysis, such information can fill major gaps in Ottoman urban and architectural history. More specifically, the diversity of subject material in the registries about houses and their inhabitants from the full spectrum of socioeconomic groups can enable researchers to conceive and characterize an array of dwellings across Ottoman urban spaces.

For this article, we conducted a quantitative analysis of the descriptions of spaces in Ottoman houses in 10 registries containing information about various types of houses of Istanbul (*Suriçi*) during the 17<sup>th</sup> century. Such quantitative data enabled us, and can enable researchers in the future, to better conceive the spatial configurations of residences across Istanbul and other Ottoman cities. For our case, we chose registries (Table 1) based on the sufficiency of information about houses therein, and we selected information from four periods spanning 20–30 years as a representation of the 17th century. By narrowing the scope of our research to those periods, we were able to have an open-ended discussion about which living conditions and sources of (dis)comfort in Ottoman houses persisted throughout the century and which changed. At the same time, since different groups of residents lived in different conditions in various Ottoman houses, we deemed it important to analyze different houses separately as well as collectively in order to gain a panorama of the city that they formed. Ultimately, the results of our analysis of data from written Ottoman sources facilitated this article's discussion of the general and particular experiences of living in houses in Istanbul during the 17<sup>th</sup> century.

To support our discussion, we compared the results of our quantitative analysis to previous findings about houses

of Istanbul in the 16th and 18th centuries, with particular reference to works by Yerasimos (2003), Tanyeli (2003) and Özkaya (2015).<sup>1</sup> However, our comparison was not made on a case-by-case basis. Whereas work by Yerasimos and Tanyeli refers to the *Waqf Tahrir* Registers of Istanbul, which contain information about properties owned by waqfs, Özkaya's work refers to the *Ahkâm* Registers of Istanbul in the 18th century.<sup>2</sup> Meanwhile, information about houses in the *Kadı* Registries about the sale of houses and transactions involved therein, the establishment of waqf foundations, granting ownership rights, *rehin*, housing rentals, the estimated costs of housing repairs, and the inheritance of property also informed our discussion. Altogether, our quantitative method and comparison of the results of our analysis to previous findings illuminated our interpretation about housing standards and living conditions in urban dwellings, as well as their transformation during the Ottoman era.

Arguably, information about houses with different characteristics in the various written sources indicate different groups of houses that should not be compared to each other. Although that claim may initially seem justifiable, we alternatively hypothesize that the property of waqfs and private property are comparable because they share characteristics; after all, waqfs in Ottoman cities were generally established as *evlatlık vakıf*, the function of which was to securely transfer property to the next generations. Urban dwellers from all social strata could establish waqf foundations for their private houses, which they could thereafter exchange for other properties owned by waqfs or private ones. Given that consideration, information about houses in our research and previous studies can enlighten discussions about the characteristics of the total housing stock in Istanbul during the Ottoman era. Accordingly, in this article, we aim to discuss and evaluate the results of previous research as well as our own to shed light on living conditions and sources of (dis)comfort in urban dwellings in Ottoman Istanbul.

<sup>1</sup> To compare the results, see: Stefanos Yerasimos, "Dwellings in sixteenth-century Istanbul", *The Illuminated Table, The Prosperous House*, ed. Suraiya Faroqhi, Christoph K. Neumann, (Ergon-Verl., Würzburg, 2003) p.275-300. and Uğur Tanyeli, "Norms of Domestic Comfort and Luxury in Ottoman Metropolises Sixteenth to Eighteenth Centuries", *The Illuminated Table, The Prosperous House*, ed. Suraiya Faroqhi, Christoph K. Neumann, (Ergon-Verl., Würzburg, 2003), p.301-16 and H. Gökçen Akgün Özkaya, *18. Yüzyılda İstanbul Evleri Mimarlık, Rant, Konfor, Mahremiyet* (İstanbul: İstanbul Araştırmaları Enstitüsü Yayınları, 2015).

<sup>2</sup> *Ahkâm* Registers are the books in which the judgements of the *Divân-ı Hümâyûn* are recorded and archived. The subjects of these judgements are complaints and social conflicts. And among these judgements *istibdal* (exchange of the properties between the owners) themed registers reserve an important place for researches about urban and housing cultures.

	<b><i>Kadı Registries</i></b>	<b>Number of houses in the registries</b>
Istanbul 1610s	Istanbul <i>Kadı</i> Registers <i>Sicil</i> no.3 (İKR-3) Rumeli <i>Kadı</i> Registers <i>Sicil</i> no.35 (RKR-35)	<b>89</b>
Istanbul 1640s	Istanbul <i>Kadı</i> Registers <i>Sicil</i> no.TSMA-213 (İKR-213) Rumeli <i>Kadı</i> Registers <i>Sicil</i> no. 80 (RKR-80)	<b>56</b>
Istanbul 1660s	Istanbul <i>Kadı</i> Registers <i>Sicil</i> no.TSMA-225 (İKR-225) Rumeli <i>Kadı</i> Registers <i>Sicil</i> no. 116 (RKR-116) Bab <i>Kadı</i> Registers <i>Sicil</i> no. 3 (BKR-3)	<b>137</b>
Istanbul 1680s	Istanbul <i>Kadı</i> Registers <i>Sicil</i> no.TSMA-246 (İKR-246) Rumeli <i>Kadı</i> Registers <i>Sicil</i> no. 139 (RKR-139) Bab <i>Kadı</i> Registers <i>Sicil</i> no. 46 (BKR-46)	<b>151</b>

Table 1- Analyzed *Kadı* Registries of Istanbul, Suriçi region. / *Analiz edilen İstanbul (Suriçi bölgesi) Kadı Sicilleri.*

In what follows, we first evaluate living conditions in Ottoman houses in Istanbul according to the presence of a two-part structure—an interior part and an exterior part—with different standards of privacy and comfort. Such a structure represented an organizational model that did not exist in every house and consequently afforded living conditions unlike those not structured according to the model. We address that topic first in order to establish a way to differentiate houses in Istanbul during the 17<sup>th</sup> century and thereby inform data and results discussed later on. In the second section, we evaluate Ottoman houses according to the number of rooms therein and their various sizes. Since rooms are units of living space where residents spend the greater part of their daily lives, their quantity and size constitute important data for understanding the living conditions of occupants. In the third section, we discuss hygienic conditions in Istanbul during the 17<sup>th</sup> century with reference to a quantitative analysis of hygiene facilities in houses. In the fourth section, we take stock of facilities in Ottoman houses for the preparation and storage of food, whereas in the fifth section, we evaluate shelter for animals and storage for fuel (e.g., woodsheds and coal sheds) on Ottoman properties based on statistical data. Last, drawing from the findings of all of those evaluations, we identify the living conditions and spatial configurations experienced by ordinary Ottomans within their houses in Istanbul during the 17<sup>th</sup> century.

## TWO-PART STRUCTURE

Descriptions of spaces in houses in Istanbul from the Ottoman era reveal two distinct parts of houses—*dahiliyye* and *hariciyye*, respectively corresponding to the interior and exterior—and indicate how space was

distributed to those parts and the various floors in houses. In houses whose spaces are described without reference to either *dahiliyye* or *hariciyye*, spaces are typically described only in terms of their distribution among the floors.

The fact that the two-part structure did not characterize every house during the Ottoman era, as mentioned in research on Ottoman houses, implies different standards among the properties with and without the structure.<sup>3</sup> In house with two parts, the separation of the *dahiliyye* and *hariciyye* seemed to afford dual degrees of exposure to the outside world—that is, to the public sphere. Those houses were organized such that the units in the *dahiliyye*, to be used by the owners, their families, and other privileged individuals, because they afford privacy, remained distinct from units in the *hariciyye*, which were in closer proximity to public spaces and meant to be occupied by household guards, servants, and guests. By allocating separate kinds of space in their two parts, houses with the two-part structure arguably afforded higher standards of comfort and privacy than those without the structure.

Two-part houses were also among the largest houses in Istanbul. Although large properties affording considerable comfort and privacy no doubt existed among single-part houses as well, ones with *dahiliyye* and *hariciyye*

<sup>3</sup> For a discussion on the two-part structure of Ottoman houses, see Uğur Tanyeli, “Klasik Dönem Osmanlı Metropolünde Konutun ‘Reel’ Tarihi: Bir Standart Saptama Denemesi”, Prof. Dr. Doğan Kuban’a Armağan, (Istanbul: Eren Publications, 1996), pp. 57–71 and Hatice Gökçen Özkaya “Osmanlı Evleri Üzerine Yeniden Düşünmek: 18. Yüzyıldan Dahiliyeli-Hariciyeli Beş İstanbul Evi Örneği”, METU Journal of Faculty of Architecture, 35, 1 (2018), pp. 243-262. In the cited researches, scholars seem to have agreed that the separation of the two parts afforded both privacy from and proximity to the outside world.

	Number of two-part houses	Total number of houses	%
Istanbul 1610s	13	89	14,6
Istanbul 1640s	21	56	37,5
Istanbul 1660s	35	137	25,6
Istanbul 1680s	51	151	33,8

Table 2 - Rates of two-part houses. / İki bölümlü evlerin bulunma oranları.

represented a significant proportion of the largest houses in the city, because each of their parts occupied its own area on the grounds and needed to accommodate its own group of people—either the owners and privileged others or household security guards, servants, and guests. In the *Ahkâm* Registers (1998) describing the *istibdal* ('exchange of property') of houses in the 18th century, the ground area of buildings provide insights into the size of the houses with *dahiliyye* and *hariciyye*. Our analysis of those records revealed that two-part houses varied in area from 150 to 600 *terbîan zirâ*, whereas houses with from one to three stories but without two parts varied in area from 36 to 419 *terbîan zirâ*.<sup>4</sup> In terms of the number of rooms, whereas houses across Istanbul in the 18<sup>th</sup> century had an average of 3.35 rooms, two-part houses had an average of 5.9. (Akgün Özkaya, 2015: 174-176) Although the *sicils* offer no direct information about the ground area of houses in 17<sup>th</sup>-century Istanbul, it is possible to estimate their area from data about their number of rooms. From such deductions, houses across the city in the 17th century presumably had an average of 4.12 rooms, whereas two-part ones had an average of 6.89.<sup>5</sup> Given those results, houses with *dahiliyye* and *hariciyye* exceeded the standard size of houses in Istanbul overall.

The extent to which houses mentioned in written Ottoman sources represent houses across Istanbul remains debatable, however. After all, such sources were not written to record architectural objects, and 17<sup>th</sup>-century *Kadı* registries offer information about houses only in their court records. Consequently, the houses of city dwellers never subject to litigation receive no official mention in the registries. For that same reason, the distribution across the sample of two-part houses as indicated from one registry to another differs. As a

result, the percentage of houses with both *dahiliyye* and *hariciyye* throughout the 17<sup>th</sup> century, though seeming to peak during the 1640s (Table 2), in reality only indicates that owners of such houses more often appeared in court than owners of other sorts of houses. At the same time, because registries of that period within the 17<sup>th</sup> century contain fewer court decisions than records representing other periods, the number of surveyable example houses from that time remains limited. Nevertheless, as shown in Tables 5-9, the sources that we reviewed for this article suggest that houses included in registries from the 1640s had a higher average number of rooms, *kenif* ('toilet'), *hamam* ('bathroom'), and water supply facilities.

Taking all of the data into account, it is thus reasonable to consider that houses with the two-part structure during the 1640s offered a higher standard of comfort and better living conditions. Even if that conclusion is accurate, the inability to ascertain information about houses in Istanbul during the 17<sup>th</sup> century from recorded court decisions continues to pose a significant risk and restriction for research on Ottoman architectural history. However, if the data, including quantitative data, are viewed as a whole and standard deviations are considered, then it is possible to deduce important conclusions for houses in 17<sup>th</sup>-century Istanbul overall. According to the results presented in Table 2, houses with *dahiliyye* and *hariciyye* represented from 15% to 34% of dwellings across Istanbul during the century, which provides a rough rate of such houses across the city at the time. By extension, that rate also indicates that most houses in the city lacked a two-part structure, meaning that the separation of *dahiliyye* and *hariciyye* afforded a standard of comfort and luxury largely inaccessible to ordinary Ottomans.

Bearing those caveats in mind, descriptions of houses without the two-part structure also generally suggest the distribution of space from floor to floor. Although the descriptions of most structures in Istanbul during the first half of the 17<sup>th</sup> century indicate which floors included different types of space, they cast doubt on whether the houses were separate, individual buildings and, in either

<sup>4</sup> The *zirâ* was the Ottoman unit of length (1 *zirâ* = approx. 75.774 cm), whereas the *terbîan zirâ* was the Ottoman unit of length for land area (1 *terbîan zirâ* = approx. 0.574 m<sup>2</sup>).

<sup>5</sup> See the second section of this article for details about the average number of rooms in different sorts of houses in Istanbul during different periods of the 17<sup>th</sup> century.

case, how the various sorts of space were distributed from floor to floor in each building. After all, information on the topic provides mixed clues, as examples of descriptions of residential spaces from the 1610s illustrate:

“...üç fevkânî ve bir tahtânî evi ve bir ahır ve bir samanlığı müştemil... [one room on the ground, three rooms on the first floor, a barn and a hayloft]” (İstanbul Kadı Registers, Sicil no. 3 (İKR-3), 339),

“...fevkânî ve tahtânî dört bâb büyütu ve bir ahır ve bi'r-i mâ ve kenîfi müştemil... [four rooms on the ground and first floor, a barn and water-well and toilet]” (İKR-3, 350),

“...tahtânî ve fevkânî birer bâb evleri, su kuyusunu selâmlık ve helâyı hâvî... [one room on the ground, one room on the first floor, water-well, room for the men and toilet]” (İKR-3, 605),

“...fevkânî iki bâb ve tahtânî bir bâb evi, selâmlığı, odayı, helâ ve avluyu hâvî ... [two rooms on the first and one room on the ground floor, room for the men, a room, toilet and courtyard]” (İKR-3, 665).

A close look at those descriptions reveals that, on all of the mentioned properties, units such as *kenif*, *ahır* (‘barn’), *samanlık* (‘hayloft’), and *selamlık* (i.e., rooms for men only) were separate from buildings containing rooms described as *ev* or *beyt*.

Comparing the descriptions with others from the 1680s sheds some light on the differences in house structure. Indeed, from the later descriptions, as for the houses described above, the distribution of spaces from floor to floor in a single building can be discerned:

“...tabaka-i ulyâsında bir bâb oda ve tabaka-i vustâsında iki bâb oda ve dehliz ve süflâsında bir matbah ve bir kiler ve bir su kuyusu ve cüneyneyi müştemil mülk menzil... [house having one room on the upper floor, two rooms and vestibule on the first floor and one kitchen, one store-room, one water-well and a small garden on the ground floor]” (Bab Kadı Registers Sicil no. 46 (BKR-46), 352)

or

“...fevkânî yedi bâb oda ve bir sofa ve vustâda dört bâb oda ve tahtında bir ahır ve bir matbah ve kenif ve muhavvatayı müştemil menzil... [house having seven rooms, one sofa on the upper floor, four rooms on the first floor and under these one barn, one kitchen, one toilet and courtyard]” (BKR-46, 741).

Because such evidence suggests that all spaces were distributed over three floors in a single building, no such construction had additional structural parts. Descriptions of Ottoman houses in the *Ahkâm* Registers from a century later indicate that houses in the 18th century, similar to the mentioned houses in the 1680s, had few partial or additional structures.<sup>6</sup> A comparison of descriptions of residential spaces from the 17th and 18th centuries furthermore reveals that though such structuring occurred in some houses in the 18th century, those examples are not described in the same way as counterparts in written sources from the 16th and 17th centuries.<sup>7</sup> Consequently, it seems that houses started to be constructed as single buildings during the 17th century.

The number of floors in houses in Istanbul during the 17th century also gives clues as to the standard of living and comfort provided by Ottoman houses, especially when such numbers change over time. According to the results of our analysis about the number of floors shown in Table 3, most houses (69–80%) during the 17th century had two stories; however, given the presence of partial and additional structures on properties, parts of those houses were spread across the owners’ land as single-story units. Furthermore, with the transformation of structural patterns in residences, two-story, monoblock houses increased in number as time passed. Although we observed no three-story house in sources representing the 1610s, the number of three-story houses had increased by the 1640s, even if only slightly, and according to our analysis of information in the *Ahkâm* Registers, in the mid-18th century 10% of houses had one story, 58% had two stories, and 31% had three. (Akgün Özkaya, 2015: 108-114) We can thus suppose that the increase in the number of floors in urban houses of Istanbul continued during the 18th century.

All of the described structural changes, including the increase of the number of floors, can be associated with the reduction in size of the land on which houses in Istanbul were built. Although the *Kadı* Registries contain no direct information about the size of plots during the period, it is possible to paint some picture of their size with reference to unit sale prices and size of lands in the 18th century. In districts with relatively high density of

<sup>6</sup> For descriptions of Ottoman houses in the 18th century, see İstanbul Büyükşehir Belediyesi, 1998, *İstanbul Külliyyatı V İstanbul Ahkam Defterleri İstanbul Vakıf Tarihi 1 (1742-1764)* İstanbul Büyükşehir Belediyesi Kültür İşleri Başkanlığı Yayınları, İstanbul.

<sup>7</sup> To analyze how the spaces were described in the written sources of 16th century, registers of pious foundations called as Vakıf Tahrir Defterleri may be reviewed: Ömer Lütfi Barkan and Ekrem Hakkı Ayverdi, *İstanbul Vakıfları Tahrir Defteri 953 (1546) Târihli*, (İstanbul: İstanbul Fetih Cemiyeti, 1970).

	One-story house %	Two-story house %	Three-story house %	Number of houses (except two-part houses)
Istanbul 1610s	26,3	73,7	-	76
Istanbul 1640s	17,7	79,4	2,9	35
Istanbul 1660s	26,8	67,01	6,2	102
Istanbul 1680s	19,2	68,7	12,1	100

Table 3. Rates of houses according to the number of floors (except two-part houses) / *Evlerin kat sayılarına göre bulunma oranları. (İki bölümlü evler hariç).*

urban fabric and more waqf buildings, the unit price of land was greater than that in other districts, while the open space of houses was smaller. (Akgün Özkaya, 2015: 119-127) Such trends imply that more than a half-century after the last date of registries of this article, the height of houses in Istanbul rose, their plots became smaller, and the urban architectural fabric became denser as houses increasingly became monoblock buildings. All of those transformations in the urban pattern seem to have emerged in the 17<sup>th</sup> century.

## NUMBER OF ROOMS

The number of rooms in houses—rooms in which occupants spend the better part of their daily lives eating, sleeping, and performing other everyday activities—is a chief indicator of the living conditions experienced in those houses. From descriptions of spaces in Ottoman residences included in the *Kadı* Registries, it is possible to determine the number of rooms in houses where residents of Istanbul lived during the 17<sup>th</sup> century. The terms used to refer to such rooms in those written sources are *oda*, *ev*, and *beyt*.

Table 4 indicates the frequency of the use of those terms in the *Kadı* Registries representing the period from the 1610s to the 1680s. As shown, although the term *oda* was used 27% of the time and the term *beyt* used 19% of the time to refer to rooms in Ottoman houses during the 1610s, the primary term was *ev*, used 62% of the time. In the 1640s, however, that trend in terminology shifted as *ev* and *beyt* became replaced by *oda*, as research in 18<sup>th</sup>-century Ottoman history confirms. In fact, in Artan's (1989) thesis based on 18<sup>th</sup>-century *Kadı* Registries, only the use of *oda* receives mention. Similarly, various written Ottoman sources, including the *Ahkâm* and *Muhallefât* Registers<sup>8</sup>, show that in the 18<sup>th</sup> century, *oda* commonly became used to refer to units of living space within houses whereas the terms of *ev* and *beyt* diminished drastically in popularity.

<sup>8</sup> To examine the terms used in the *Muhallefât* Registers, see Özyalvaç's research (2015) analyzing houses in Istanbul based on those sources.

Although alternative interpretations are possible, the change in the use of terms was likely associated with the differentiation of spaces for living and what those spaces meant to occupants. Both the decrease of partial and additional structures and the increase of monoblock houses during the second half of the 17<sup>th</sup> century in Istanbul coincided with the decline in the use of the terms *ev* and *beyt* as well as the growing prevalence of the use of the term *oda*. That terminological change related directly to the spatial transformation of units of living space in Ottoman houses. Whereas units dubbed “*ev*” were discrete spaces with access to a courtyard or other exterior parts of houses, units called “*oda*,” commonly on the upper floors and related to other residential spaces by way of *dehliz* (‘vestibules’) and *sofa*, became widespread. At the same time, the shift marked a transformation in spatial arrangements within Ottoman houses. As plots for houses in Istanbul decreased in size and the number of floors increased, most interior spaces used for activities of daily life began to appear on the upper floors, and the arrangement of those spaces became more integrated.

The results of our quantitative analysis about the number of rooms in houses in Istanbul during the 17<sup>th</sup> century appear in Table 5. According to those figures, most houses had from one to four rooms, with a rate fluctuating from 64% to 79% across the century; by contrast, 13–22% houses had from five to eight rooms, and 6–13% had 9 rooms or more. Such results suggest that most houses in the city had from one to four rooms during the 17<sup>th</sup> century, assuming that the rates of rooms in houses did not change radically but remained mostly stable throughout the century. On average, houses had more than 3.5 rooms for all periods during the 17<sup>th</sup> century that we analyzed. Considering that Yerasimos (2003: 282) reported an average 2.57 rooms per house in Suriçi during the 16<sup>th</sup> century, our findings imply that houses across the city were liable to have gained at least one room and, in turn, to have become more comfortable and able to afford greater privacy for their occupants.

	Frequency of use of terms (percentage)			
	<i>Oda</i>	<i>Ev</i>	<i>Hücre</i>	<i>Beyt</i>
Istanbul 1610s (89)	% 26,97	% 61,8	% 1,12	% 19,1
Istanbul 1640s (56)	% 80,36	% 1,79	-	% 16,07
Istanbul 1660s (137)	% 86,13	-	-	% 13,87
Istanbul 1680s (151)	% 95,36	-	-	% 5,96

Table 4. Frequency of use of the terms referring to rooms in Kadı Registries. / *Kadı Sicillerinde odalar için kullanılan terimlerle kullanım sıklıkları.*

	1610s		1640s		1660s		1680s	
	Number of houses	%	Number of houses	%	Number of houses	%	Number of houses	%
<b>1-4 roomed houses</b>	69	79,31	34	64,15	84	71,79	106	76,26
<b>5-8 roomed houses</b>	12	13,79	12	22,64	26	22,22	22	15,83
<b>9 and more roomed houses</b>	6	6,9	7	13,21	7	5,98	11	7,91
<b>Total number of houses</b>	87		53		117		139	
<b>Maximum number of rooms</b>	16		27		25		21	
<b>Average number of rooms</b>	3,78		5,36		4,07		3,9	

Tablo 5. Rate of houses according to the number of rooms. / *Oda sayılarına göre evlerin oranları.*

	<i>Hazine odası</i> %	<i>Yer odası</i> %	<i>Hassagân odası</i> %	<i>İç oğlanları odası</i> %	<i>Bekçi odası</i> %	<i>Bahçıvan odası</i> %	<i>Hizmetkâr odası</i> %	<i>Mabeyn odası</i> %	<i>Kahve odası</i> %
Istanbul 1610s (89)	0	0	0	0	0	0	0	0	0
Istanbul 1640s (56)	0	0	0	0	0	0	0	0	0
Istanbul 1660s (137)	0	0	0	0,73	0	0,73	1,46	1,46	0,73
Istanbul 1680s (151)	0,66	0,66	0,66	0	0,66	0	0,66	0,66	2,65

Table 6. Specialized rooms in the 17<sup>th</sup> century Istanbul houses. / *17. yüzyıl İstanbul evlerinde özelleşmiş odalar.*

The rate of specialized rooms in houses is another important indicator of the living conditions therein. Far more often than not, such rooms appear in higher-income households, and as detailed in Table 6, they were rare but not altogether absent in houses in Istanbul during the second half of the 17<sup>th</sup> century. By contrast, as shown in the thesis of Özyalvaç who analyzed the residences of high-income households indicated in 18<sup>th</sup>-century sources, specialized rooms not only commonly appeared in the 18<sup>th</sup> century but also were described in detail. (Özyalvaç, 2015: 196-297) Therefore, it is likely that some rooms in houses in the city, at least for the upper class, became specialized from the 17<sup>th</sup> to the 18<sup>th</sup> centuries. However, data to support that conclusion currently remain insufficient.

## HYGIENE FACILITIES

In general, the rate of hygiene facilities in houses is important for understanding the living conditions of urban residents. Deducible from descriptions of residential spaces in written sources, rates of water supply facilities, toilets and *hamams* ('bathrooms') in 17<sup>th</sup>-century Ottoman houses, clarify the living conditions of Istanbul's residents during the period.

As shown in Table 7, more than 60% of houses in 17<sup>th</sup>-century Istanbul had at least one toilet, and that rate remained valid from the beginning to the end of the century. In research on the topic examining the 16<sup>th</sup> century, Yerasimos reported that 80.79% of houses in Istanbul during that time also had toilet (Yerasimos, 2003: 285), whereas Tanyeli reported that only half did.

(Tanyeli, 2003: 305) In either case, the lack of written sources indicating the rate of toilets in Istanbul's houses during the 16<sup>th</sup> century casts some doubt on the accuracy of those figures. However, assuming that the figures are roughly correct, Tanyeli concluded that toilets were not luxuries during the century, even in single-room houses:

"Here, late Roman and Byzantine sewage systems never ceased to function, and up to the nineteenth century, the Ottomans repaired, extended and used the same systems. As a result, building toilets was not difficult, and many property owners could afford to construct them." (Tanyeli, 2003: 310) Table 7. Rate of hygiene facilities in houses.

Together, both studies suggest that more than half of houses in 16<sup>th</sup>-century Istanbul had toilet, which our figures calculated for the 17<sup>th</sup> century (>60%) support. Moreover, analysis based on *Ahkâm* Registers from the 18<sup>th</sup> century indicate that 85.64% of houses in the city, owned mostly by families in the upper-middle class, had toilet. Although that rate was thus likely lower for ordinary residents of 18<sup>th</sup>-century Istanbul, it was likely not considerably so, according to quantitative data in the *Kadı* Registries and the results of other researchers. Also according to those registries, the rate of toilets in Ottoman houses markedly rose in the 1640s, presumably as the number of large houses with both *dahiliyye* and *hariciyye* belonging to the higher class grew. However, considering other data regarding toilets and other components of houses, that result does not necessarily indicate a change specific to the 1640s. On the whole, 17<sup>th</sup>-century data show that more than 60% of houses in

	<i>Kenif</i> (‘Toilet’) %	<i>Hamam</i> (‘Bathroom’) %	<i>Camekân</i> (‘Changing room’) %	<i>Bi’r-i ma</i> (‘Wa- ter-well’) %	<i>Çeşme/ Musluk</i> (‘Fountain/ Tap’) %	<i>Ma-i cari/ Ma-i leziz</i> (‘Running fresh water’) %	<i>Pınar / Ayazma</i> (‘Spring / Holy Spring’) %
Istanbul 1610s (89)	69,66	5,62	0	55,06	1,12	0	1,12
Istanbul 1640s (56)	76,79	14,29	5,36	60,71	8,93	5,36	0
Istanbul 1660s (137)	60,58	9,49	3,65	48,91	1,46	2,92	0
Istanbul 1680s (151)	62,25	11,92	5,96	56,95	0,66	1,32	0

Table 7. Rate of hygiene facilities in houses. / *Evlerde hijyen mekanlarının dağılımı.*

Istanbul had toilets, which generally afforded ordinary inhabitants of the city a fairly high level of hygiene.

Nevertheless, that trend and conclusion do not apply for bathing spaces in Ottoman houses. At the outset of the 17<sup>th</sup> century, only 5.62% of houses in *Suriçi* Istanbul, had a *hamam*, and that rate rose to only 12% by the end of the century. Such rates are unsurprising, however, since *hamam* required masonry and were thus expensive to construct and remained exclusive to the highest social strata. Although private, *hamam* were far smaller than public bathhouses, could be used only by a few residents at a time, and rarely provided running water in which to bathe. Adjacent to *hamam*, *camekân* (‘changing areas’) appeared in 6% of residences in 17<sup>th</sup>-century Istanbul at most; because houses with a *hamam* did not necessarily have a *camekân* as well, both spaces, although especially *camekân*, were luxuries. In the 16<sup>th</sup> century, *hamams* were even rarer, even among the largest houses (Tanyeli, 2003: 306), and their rate in the 18<sup>th</sup> century, at 9.41%, at least according to the *Ahkâm* Registers, indicates no improvement, if not a decline. Given those figures, the rate of *hamams* deducible from the 17<sup>th</sup>-century *Kadı* registries may overestimate the reality, owing to the higher rates of two-part houses therein. Moreover, during periods when the rate of such houses was high, luxurious components such as *hamams* increased as well. In short, the rate of houses in Istanbul with bathing facilities did not exceed 14% in the 17<sup>th</sup> century, which suggests that the vast majority of city dwellers used public baths to bathe, not facilities in their houses.

Those results align with the results of our analysis of water supply facilities in 17<sup>th</sup>-century Ottoman houses. Notably, houses with running water as well as a *hamam* were few, as indicated by components in written sources such as *mâ-i leziz* or *mâ-i câri* (‘fresh drinking water’), *çeşme* (‘fountains’), *musluk* (‘taps’), *pınar* (‘springs’), and *ayazma* (‘holy springs’), as shown in Table 7. Such components were rare even in the largest houses of the city—in the *Ahkâm* Registers, the largest with a *dahiliyye* and *hariciyye* in terms of rooms had 13—chiefly because running water was prohibitively expensive. As a case in point, the cost of *mâ-i leziz* at a house appearing in the *Ahkâm* Registers equaled half of the sale price of the house itself. Although houses with more than 13 rooms appear in the *Kadı* registries, residences with running water were scarce; only nine out of 433 houses (2%) had *mâ-i leziz* or *çeşme*. Without a doubt, the most luxurious household facility for Istanbul’s residents was running water.

At the same time, water wells, as architectural elements posing less constructional and financial burden, were more common than other water supply facilities. Indeed,

for 49–61% of houses throughout the century, wells were the only sources of water on the premises. Even so, however, not every house had a well; regarding ones that did, it remains uncertain how much of the need for water among occupants the wells met. The *Ahkâm* Registers from the 18<sup>th</sup> century suggest that the cost of wells on properties related to their depth, the amount of water in them, the construction materials used, and the cost of labor. Given all of those considerations, it is likely that public fountains met the need for water of the vast majority of Istanbul’s residents during the 17<sup>th</sup> century.

## COOKING AND FOOD STORAGE FACILITIES

To discuss cooking and food storage facilities in 17<sup>th</sup>-century Ottoman houses requires a brief delineation of terms for those facilities used at the time. In the *Kadı* Registries, the most frequent terms for such facilities are *matbah* (‘kitchen’) and *fırın* (‘oven’). According to Cafer Efendi’s 16<sup>th</sup>-century definition, “*Matbah arabîdir; fârisîde cây-i âş puhten ve aşhâne türkîde çorba pişirecek (şorba bişürecek) yer ve aş odası, ... Furn arabîdir; fârisîde dâş türkîde arabî üzre yine fırın (firun) derler; lugat-ı müşterekedir*”. (Yüksel, 2005: 96)

Accordingly, *matbah* were spaces specifically allocated for food preparation, whereas *fırın*, an architectural item, refers to a “cooker with opening before it, with a ceiling in the shape of vault, used to cook food such as bread by supplying heat of a uniform temperature from each side” (TDK Türkçe Sözlük, 1988: 500). Other common terms for food storage facilities were *kiler* (‘storeroom’) and *anbar* (‘warehouse’), whereas *mahzen* (‘cellars’) were for general storage.

Concerning the standard of living afforded by those spaces during the Ottoman era, Tanyeli has stated that *matbah* and *kiler* were considered to be luxurious and beyond the means of middle-class Ottomans during the 16<sup>th</sup> century and that ordinary inhabitants of Istanbul typically had only a *fırın* in their houses. (Tanyeli, 2003: 308) Coming to a similar conclusion, Yerasimos determined that *matbah*, appearing in only 6% of houses, were rare during the 16<sup>th</sup> century, whereas 25.10% of houses had a *fırın*. (Yerasimos, 2003: 285) Viewing the 17<sup>th</sup>-century registries in light of those figures, it seems that residents in Istanbul were on the verge of an important shift in the accessibility of those components. As shown in Table 8, although 12% of residents had a *matbah* in their houses in the 1610s, by the end of the 17<sup>th</sup> century that rate had jumped to 42%. A similar trend occurred regarding *kiler*; from the beginning to the end of the century, the rate of *kiler* rose from 4% to 26%. Conversely, the rate of *fırın* reveals an inverse trend to *matbah* beginning in the first quarter of 17<sup>th</sup> century. Eventually, *fırın* would become

	<i>Matbah</i> (‘Kitchen’) %	<i>Fırın</i> (‘Oven’) %	<i>Kiler</i> (‘Storeroom’) %	<i>Anbar</i> (‘Ware-house’) %	<i>Mahzen</i> (‘Cellar’) %
Istanbul 1610s (89)	12,36	16,85	4,49	1,12	5,62
Istanbul 1640s (56)	39,29	7,14	12,5	8,93	19,64
Istanbul 1660s (137)	26,28	1,46	16,06	1,46	10,22
Istanbul 1680s (151)	41,72	1,32	26,49	1,99	13,25

Table 8. Rate of cooking and food storage facilities in houses. / *Evlere yemek pişirme ve yiyecek depolama mekanlarının dağılımı.*

replaced by *matbah* during the century, as shown in Table 8. Viewing those results in light of ones for the 18th century, *matbah*, which appeared in more than half of houses in Istanbul at the time, would become ordinary components in the overwhelming majority of urban dwellings. (Akgün Özkaya, 2015: 214-224)

Regarding how the need for cooking was met in houses without *matbah*, following Faroqhi (Faroqhi, 1987: 95-100), Tanyeli has posited that cooking during the 16th century was performed in yards with *fırın*s on Ottoman properties. (Tanyeli, 2003: 339-343) Observing that the oldest existing *matbah*, dating to the 18th and 19th centuries, were structures built separately from houses, he argues that they follow the example of older counterparts also placed outdoors. Therefore, he concludes that cooking in the 16th century was performed in houses using methods simpler than those employed during the modern period, when *matbah* became specialized spaces with advancements in gastronomy. Those assumptions seem highly reasonable given the many examples of *matbah* appearing in isolation from other spaces of houses in the 17th century, as indicated in one house, described as

“...iki fevkânî oda sofalarıyla ve dehliz ile ve tahtapûş ve tahtânî iki oda ve altında bir ahûr ve ahûra muttasıl bir matbah ve iki nerdübân ve iki nerdübân yanında bir kenîfi ve bir tahtânî köşk ve tahtapûş ve bahçe seddi ve etrâfına taş duvar ve bi’r-i mâ... [two rooms and sofas, vestibule and tahtapuş on the first floor, two rooms on the ground floor and a barn under the rooms, a kitchen next to the barn and two staircase and a toilet next to the staircases and one kiosk on the first floor and tahtapuş, garden terrace, and the stone walls around it and water-well]” (Rumeli *Kadı* Registers *Sicil* no. 80 (RKR-80), 151),

Many instances of *matbah* in the 17<sup>th</sup> century are mentioned as being near storage areas and barns, especially in the parts of houses opening into yards or gardens. Though with fewer examples, houses with *matbah* in rooms on their upper floors emerged later in the century, as in the house described in the 1660s as

“...tabaka-i ulyâsında iki bâb oda ve bir matbah ve bir kenîf ve tabaka-i vustâsında bir bâb oda ve bir sofa ve tabaka-i süflâsında bir ahır ve muhavvatayı müştemil menzili ... [two rooms, one kitchen, one toilet on the upper-floor, one room and one sofa on the first floor, one barn and courtyard on the ground floor]” (BKR-3, 268),

Once *matbah* began to appear on the upper floors of three-story houses, they increasingly appeared there in the 18<sup>th</sup> century.

## SHELTER FOR ANIMALS AND FUEL STORAGE

Generally providing shelter for bovine livestock, *ahır* (‘barn’) during the Ottoman era was also space for keeping horses and camels, which were expensive animals considered to be luxuries. According to Yerasimos, however, in the 16<sup>th</sup> century in districts central to the *Suriçi* Istanbul, houses with *ahır* were common, meaning that their residents were mostly of the upper classes. (Yerasimos, 2003: 285) Although Tanyeli had added that

“It is not likely that these spaces were intended for horses, for in the classical period horse riding was restricted, and only the members of governing class were allowed to mount these animals within the city walls.” (Tanyeli, 2003: 312),

	<i>Ahır</i> (‘Barn’) %	<i>Samanlık</i> (‘Hayloft’) %	<i>Mahtab</i> (‘Woodshed’) %
Istanbul 1610s (89)	38,2	1,12	1,12
Istanbul 1640s (56)	50	0	5,36
Istanbul 1660s (137)	32,12	3,65	5,84
Istanbul 1680s (151)	38,41	1,99	6,62

Table 9. Rate of barns and fuel storages in houses. / *Evlerde ahır ve yakıt depolarının dağılımı.*

he expressed doubt that barns in the 16<sup>th</sup> century were places allocated to shelter horses given the high rates of barns and the relative expense of purchasing and keeping such animals. In his opinion, *ahır* should thus be defined as

“rather a shed-housing a variety of small domestic animals, and some times even cows.”

Although it remains uncertain in the context of 17<sup>th</sup>-century Istanbul, barns were typically not expensive places to construct compared to other spaces on Ottoman properties in the 18<sup>th</sup> century.<sup>9</sup> In houses mentioned in the *Ahkâm* Registers, the financial value of some spaces and architectural components, including *hamam*, *camekân*, water supply facilities, *matbah*, and *mahzen*, was calculated to determine the overall value of a house. However, because barns were not taken into account for such calculations, the high popularity of barns on 17<sup>th</sup>-century Ottoman properties, as in the 16<sup>th</sup> century, was likely based on the expensiveness of animals kept there, not the cost of the structures themselves. By the same token, barns were not only allocated for mounts but also for animals such as cows that residents used for meat and dairy. Therefore, on some properties, barns were possibly structures to keep horses or camels, if not both, along with small cattle or even sheep. The fact that not all houses with barns were large supports that hypothesis.

As shown in Table 9, more than 30% of the properties that we analyzed had barns, and that rate held throughout the 17<sup>th</sup> century. According to Yerasimos’s findings, that rate during the 16<sup>th</sup> century was approximately 30.1% across Istanbul (*Suriçi*) and likely higher in the central districts where upper-class households lived. (Yerasimos, 2003;

<sup>9</sup> Given the high cost of their construction, *mahzen*, water wells, and *hamams* were highly valued facilities. However, barns were not taken into account among these components in the *Ahkâm* Registers. For an example, see Istanbul Külliyyatı (1998), 270-271.

285) Table 9 also represents the 1640s, when especially large houses dominated our sample; during that period, architectural components considered to be luxurious had particularly high rates of frequency, as did barns. Conversely, in light of 18<sup>th</sup>-century data obtained from the *Ahkâm* Registers, the presence of barns arguably decreased in the following century, when only 15.35% of houses in Istanbul had barns.

*Samanlık* (‘hayloft’) was another space maintained in connection with *ahır*; however, very few houses had such facilities, and most likely, the problem of storing hay was generally solved by barns.

Regarding places for storing fuel, the sole component encountered in the registries representing the 17<sup>th</sup> century is *mahtab* (‘woodshed’). Although it seems that the rate of such spaces in houses rose from 1% to 7% during the century, that increase did not change the facility’s status as an uncommon part of houses. In the 18<sup>th</sup> century, the percentage of fuel storage facilities, including *kömürlük* (‘coal shed’), indicates that they remained rare. In fact, during the 17<sup>th</sup> century, the overall rates of woodsheds and coal sheds were 8.91% and 6.93%, respectively. Considering all houses with woodsheds and coal sheds, the frequency of such facilities likely rose, although the increase was not necessarily significant.

## CONCLUSION

Kadı registries containing descriptions about the residences of ordinary Ottomans are important written sources for information about the facilities and architectural components of their houses, as well as the living conditions that they experienced. Such data enabled us to conduct quantitative analyses about houses during the Ottoman era to clarify which spatial components were ordinary, which were premodern luxuries, and, in turn, which represent trends contrary to the general understanding to date.

Considering the results of our analyses, the 17th century was critical for Istanbul in terms of living conditions afforded by houses. For one, from the beginning to the end of the century, the descriptions of residential spaces in *Kadı* Registries indicate a structural transformation in the late 17th century. Before then, the spaces and components of Ottoman houses were constructed on plots of land partially and as additions, after which monoblock houses with two or more floors constructed on smaller plots began to emerge in the city. The average number of floors also increased during the 17th century and seems to have continued into the following century, given the increased density of the urban fabric and the reduced size of plots.

The registries also present important data about the interior spaces and parts of Ottoman houses. Our results reveal that during the 17th century, 15–34% of houses in Istanbul comprised two main parts—the *dahiliyye* and the *hariciyye*—whereas others did not have such a separation. The two-part houses were among the larger houses in the city, as in the previous and following centuries, and the two-part structure indicated a standard of comfort, privacy, and even luxury that only residents of higher socioeconomic strata could reach.

The analysis of living units within Ottoman houses can also provide important clues about the comfort conditions offered therein. When reviewed in comparison with studies addressing different centuries, houses during the 17th century in Istanbul had more rooms, some of which afforded their occupants more privacy from the outside world. When evaluated in terms of hygiene, Ottoman houses in the 17th century also supplied a certain standard by virtue of toilets, whereas bathing and water supply facilities continued to be luxuries, as they had been during the 16th century. Conversely, spaces for cooking and food storage were transformed. In particular, *firin*, often encountered in 16th-century houses in Istanbul, seem to have disappeared in the 17th century as the *matbah*, hardly mentioned during 16th century, began to replace them. The same upward trend applied to facilities for food storage such as *kiler* and *mahzen*, whereas large storage spaces such as *anbar* (‘warehouses’) remained rare. Although also indicating the living conditions of city dwellers, barns in 17th-century houses did not experience any significant increase or decrease in popularity compared to the 16th century. However, moving into the 18th century, the number of barns would decrease on Istanbul.

Ultimately, data obtained from the *Kadı* registries stress that the 17th century was a critical period for houses in Istanbul and their spatial arrangements as well as components. In contribution to current understandings about how living conditions shifted or remained stagnant

in Istanbul during the early modern period, this article offers a launchpad for other researches on houses in the previous and subsequent centuries. To narrow major gaps on the subject, however, it remains necessary to devise innovative approaches and new research methods involving written Ottoman sources in order to illuminate the similarities and differences of the various periods of the Ottoman era.

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