

The Frontiers of the  
OTTOMAN WORLD

# The Frontiers of the OTTOMAN WORLD

This is the first major comparative study of the frontiers of the Ottoman Empire, one of the crucial forces that shaped the modern world. The essays combine archaeological and historical approaches to further understanding of how this major empire approached the challenge of controlling frontiers as diverse and far-flung as Central and Eastern Europe, Anatolia, Iraq, Arabia and the Sudan.

Ranging across the 15th to early 20th centuries, essays cover frontier fortifications, administration, society and economy, and shed light on the Ottomans' interaction with their neighbours, both Muslim and Christian, through warfare, trade and diplomacy. As well as summing up the current state of knowledge, they also point the way to fresh avenues of research.

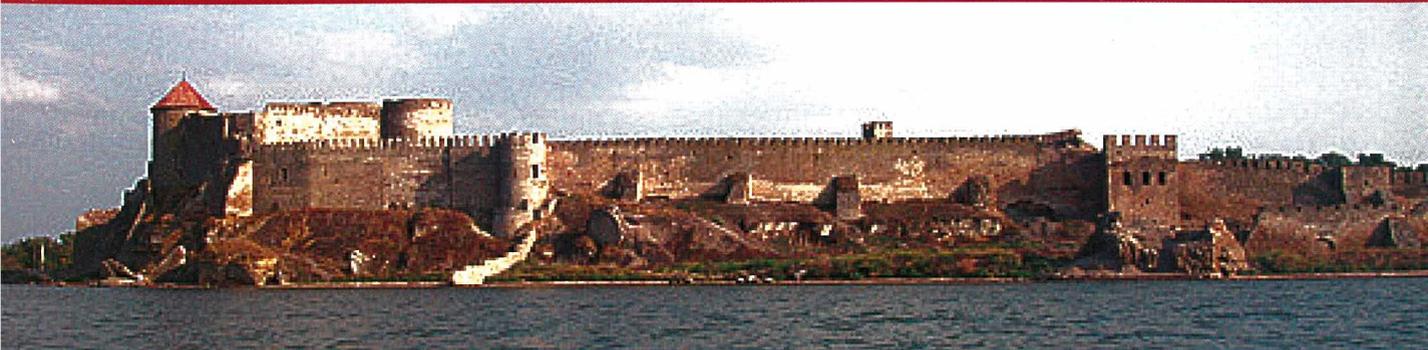
This volume will be essential reading for historians and archaeologists of the Middle East and early modern Central and Eastern Europe. Giving a particular prominence to the nascent discipline of Ottoman archaeology, the volume will also be of particular interest to students of Islamic archaeology.

**Andrew Peacock** is Assistant Director, British Institute at Ankara.

PEACOCK

THE  
BRITISH  
ACADEMY

EDITED BY A. C. S. PEACOCK



**Cover illustration** is Akkerman Fortress, Ukraine, which protected the Ottoman Black Sea region from Poland-Lithuania, the Ukrainian Cossacks and eventually the Russian Empire (with thanks to Ihor Zhuk).

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# The Ottoman Northern Black Sea Frontier at Akkerman Fortress: The View from a Historical and Archaeological Project

VICTOR OSTAPCHUK AND SVITLANA BILYAYEVA

THE NORTHERN FRONTIERS OF THE OTTOMAN EMPIRE lay across a swathe of lands between Hungary and Iran, arcing through the principalities of Wallachia and Moldavia, then north of the Black Sea through the steppes of southern Ukraine (the western end of the great Eurasian steppe), and finally proceeding further east along the Caucasus Mountains as far as the Caspian Sea (Figure 7.1). The central portion of this arc, roughly from the lower Danube to the Kuban and Don Rivers, was predominantly a steppeland of both flat and rolling plains, overlaid by a network of rivers great and small, as well as ravines, gullies and forests. To the heedless, even if powerful, outsider the vast Black Sea steppe could seem a deceptively accessible and passable region. Instead, it was usually a formidable obstacle for both armies and merchants who were unaccustomed to its conditions and without proper contacts with its nomadic inhabitants. Some of its main rivers facilitated, albeit did not guarantee, passage whether coming from the Ottoman south or Slavic north.<sup>1</sup>

With the fall of Constantinople in 1453, Mehmed II moved quickly to establish Ottoman suzerainty, though not total control, over most of the shores of the Black Sea. Probably the greatest Ottoman achievement in this region was the relationship with the newly formed Crimean Khanate, a Tatar successor state of the Golden Horde that would survive until the end of the eighteenth century. Though nominally a subject of the Porte from 1475, the Khanate had a unique relationship with Istanbul, receiving regular and official Ottoman gifts which counted as tribute in the eyes of the khans, who were, thanks to their Chinggisid descent, of a more prestigious line than the

<sup>1</sup> This aperçu of the Ottoman Black Sea frontier is primarily based on Victor Ostapchuk, 'The human landscape of the Ottoman Black Sea in the face of the Cossack naval raids', *Oriente Moderno*, n.s. 20 (2001) (Special Issue, *The Ottomans and the Sea*, ed. Kate Fleet), 23–95.



Figure 7.1. The Black Sea region.

Ottomans. Until the end of the seventeenth century, they maintained a virtually independent foreign and military policy. The Ottomans benefited immensely from this connection, for they managed to have a sufficient degree of control over most of the khans. This obviated the need for outright conquest of the Black Sea steppes—something which, as experience would show, they could hardly accomplish anyway. Nor, because of its low sedentary population, did they need outright possession for the benefit of their tax collecting and military machines. From the hands of the Crimean Tatars and their pure nomad brothers in the steppe, the Nogays, the Ottomans received a constant flow of slaves captured in Ukraine, southern Muscovy and the Caucasus region, which was a mainstay of both the Tatar and Ottoman economies.

With the conquest in 1484 of Kili (Kilia) and Akkerman (Bilhorod-Dnistrovs'kyi), the two remaining major fortresses (and ports) not yet in Ottoman hands, the Black Sea became in effect an Ottoman possession. That summer Sultan Bayezid II led the first major campaign of his reign and succeeded where eight years earlier his great conquering father had failed. The location of these ports on the mouths of the Danube and Dniester Rivers respectively meant that whoever possessed them could control the important trade routes which connected the Black Sea with central and north-east central Europe. For the Principality of Moldavia, led by the formidable and independent-minded Stephan the Great (r. 1457–1504), the Ottoman takeover of Kili and Akkerman meant an effective end to his struggle to resist Ottoman suzerainty, and in 1486 Moldavia became an Ottoman tributary. Kili, Akkerman and the southern part of the Bucak (Bessarabia) were attached to the *sancak* of Silistre (Silistra), part of the *beylerbeyilik* of Rumeli. However, the conquest of the region was not finally completed until 1538 when Süleyman the Magnificent took Tighinia/Bender, the remainder of the Bucak and the stretch of coast between the Dniester and the Dnieper. This is sometimes taken to mark the beginning of the Black Sea as an 'Ottoman Lake' as it is commonly known in the literature.<sup>2</sup> Subsequently the *sancak* of Akkerman (also known as Bender and Akkerman) was formed, consisting of the *kazas* of Akkerman, Kili, Bender and Cankerman (also known as Özi, modern Ochakiv).<sup>3</sup>

The northern rim of the Black Sea region remained part of a broad and deep steppe frontier and in large part a sparsely populated wilderness zone. Hence names that denote 'Deserted Plains' (Lat. *Campi Deserti*) or 'Wild Fields' (Pol. *Dzikie Pole*) were applied to parts of it. Yet it contained entire societies, such as the nomadic Little Nogay Horde and the sedentary Zaporozhian Cossacks, who, isolated in their distant lower Dnieper island and marsh *refugia* (the Zaporozhia, see Figure 7.1), were insulated from

<sup>2</sup> Though, as we have demonstrated elsewhere, during Cossack ascendancy on the sea in the first half of the seventeenth century it was not quite a (secure and prospering) Ottoman lake. See Ostapchuk, 'Human landscape', esp. 37–43.

<sup>3</sup> Mihnea Berindei and Gilles Veinstein, 'Les possessions ottomanes entre Bas-Danube et Bas-Dniepr: réglemets fiscaux et fiscalité de la province de Bender-Aqkerman, 1570', *Cahiers du Monde russe et soviétique*, 22 (1981), 251–328, esp. 252.

control or attack by, for example, Poland–Lithuania or the Ottomans, yet were able to seize opportune moments to strike at their neighbours by land or by water. The Crimean Khanate was able to project Tatar cavalry power throughout this steppe frontier and beyond to its Slavic neighbours in the north, towards the Danube and Hungary in the west, and east into the Caucasus. All these players derived their security vis-à-vis the surrounding powers to a greater or lesser extent from the natural features of this steppe frontier.

Because there were relatively few towns and a sparse nomadic and even sparser rural sedentary population, fortresses were particularly important nodes, with sufficient and reliable manpower and firepower to protect the Ottoman Black Sea and with indispensable administrative capacity to support and regulate trade between the empire and the northern countries of Poland–Lithuania and Muscovy. They were usually located along or at the mouths of rivers, especially on the great ones—Kili on the Danube (also of importance for east–west trade along this river), Akkerman and Bender on the Dniester, Özi and Kılburun (Kinburn) on the Dnieper, and Azak (Azov) on the Don, as well as Kerş (Kerch) (plus later Yenikale) and Taman on the Straits of Kerch where the Sea of Azov flowed into the Black Sea.

Our view of the frontier here is primarily from the vantage point of the Akkerman Fortress Project,<sup>4</sup> a study of one of the best preserved and documented fortifications on the Black Sea coast. While the pre-Ottoman, mostly Moldavian period of the fortress is of interest,<sup>5</sup> the main focus is on the Ottoman period, which lasted from 1484 to 1806. Even though this was the longest stretch of Akkerman's history, it has been the most neglected, mainly for reasons of anti-Turkish bias and ignorance of or lack of access to the Ottoman sources. However, substantial Ottoman archival records concerning various aspects of the fortress, particularly its repair and reconstruction, have survived. The historical source base for the project includes both documentary and narrative records in languages as diverse as Polish, Romanian, Russian, Ukrainian, as well as English, French and Italian, but for Ottoman Akkerman the Ottoman sources are not only more numerous and detailed, but for our purposes mostly of higher quality than the others. As a fully-fledged historical and archaeological project the Akkerman Fortress Project is still very much work in progress, and we ask the reader to bear in mind the tentative nature of many of our results.<sup>6</sup>

<sup>4</sup> See [www.akkerman.org](http://www.akkerman.org). In 1999 archaeologists from Turkey and Ukraine began excavations at Akkerman, and by 2006 were joined by historians and archaeologists from Canada, the United Kingdom and the United States.

<sup>5</sup> It was known by the equivalent of 'White City/Fortress', in various languages in addition to Turkish—a name which dates back to foundation by the late fourteenth/early fifteenth century (Belgorod, Bialogrod, Bilhorod in Slavic languages and *Çetatea Alba* in Romanian).

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## Akkerman in its Frontier Setting

The Black Sea, with its natural resources and commerce, was considered vital for the well-being and growth of the state and its great metropolis, Istanbul. Thus the sea was also seen as a heartland of the realm or even a private dominion (in the sources occasionally called a *harem*) of the Sublime Porte. During the Moldavian and Ottoman periods Akkerman was a crossroads of trade and military routes by both land and sea. These included a coastal route from the Danube to the Dnieper that had to cross or go around the many long estuaries (*liman*) along the way, another along the Dniester River, and a sea route that straddled the Rumelian coast from Istanbul to Özi and the Crimea. The commercial importance of the coastal land route is not well known, though the sea route was of great importance for the military and trade. The route along the Dniester, the so-called 'Moldavian Route', connected the important city of Lviv (Lwów, Lemberg) with the Black Sea and from there with Istanbul, Bursa, Sinop, and other points in the Black Sea basin. This was a rich artery, run largely by Armenian merchants, transporting silk, spices, wine, wax and hides, as well as foodstuffs. Akkerman and its region became an important source of food for Ottoman markets, particularly Istanbul—huge annual quotas of sheep were to be sent to the capital, and grain and fish products were also significant.<sup>7</sup> In an attempt to better exploit the rich soil of the region, the Ottoman state promoted colonisation of nomadic lands, encouraging the formation of large farms or ranches (hence known as a type of *çiftlik*) on their so-called 'abandoned' or 'empty' lands.<sup>8</sup>

However, despite attempts to colonise and sedentarise the Bucak, the Ottomans were unable to settle completely or otherwise eliminate its nomads. Instead, there were periods of nomadic resurgence. For example, in the first decade of the seventeenth century, a branch of the Nogays left the Volga–Don–Kuban region, crossed Crimean-controlled territory and established themselves in the Bucak steppe. There they were even better placed than the Crimean Tatars for slaving raids, being much closer to well-populated areas, such as the more westerly Ukrainian lands of the Kingdom of Poland (Podolia, so-called Red Ruthenia (the Lviv region), and Volhynia), and to the occasional rich target of opportunity of Moldavia. In the 1620s an intense rivalry arose between the Bucak Horde and the Crimean Khanate that would involve the Ottomans, Poland and the Zaporozhian Cossacks. The rivalry was not only a military and political one: with the success of the Bucak Horde in the slaving business, Akkerman challenged Kefe's position as the key Black Sea slave port.

<sup>7</sup> Halil İnalçık, 'The Ottoman state: economy and society, 1300–1600', in Halil İnalçık with Donald Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge: Cambridge University Press, 1994), 285–95.

<sup>8</sup> *Ibid.*, 169–71; Gilles Veinstein, 'Les "çiftlik" de colonisation dans les steppes du nord de la Mer noire au XVIIe siècle', *Istanbul Üniversitesi İktisat Fakültesi Mecmuası*, 41 (1982–3), 177–210.

Moldavia, at the far western end of the Black Sea frontier, by virtue of its natural features alone—considerable uplands and extensive forests—should be considered a transition zone rather than a fully-fledged part of the steppe frontier. Sandwiched between the lands of two large empires—regular Ottoman territories and those of Poland–Lithuania—it was largely a buffer state. Its geopolitical position subjected it to various, often disruptive, influences from all sides—Ottoman, Polish, Tatar and Cossack. Given this array of actors, can we even speak of the frontier at Akkerman as a simple stretch of the Ottoman northern Black Sea frontier that separated the Ottoman Empire from the northern countries of Poland–Lithuania and Muscovy? For in fact on this territory there were simultaneously several frontiers. It was not even, as where the Hapsburg, Venetian and Ottoman empires met, a *triplex confinium*, but rather a kind of ‘*multiplex confinium*’—the Ottomans versus Poland–Lithuania and the quasi-independent Ukrainian Cossacks, Moldavia versus the Tatars of the Bucak and of the Crimea, the Bucak Horde versus the Crimean Khanate. To the west of Akkerman was the Ottoman–Moldavian–earlier Lithuanian/later Polish frontier continuum.

### The Akkerman Fortress Project

The Akkerman fortress is a large complex with a circumference of more than two kilometres, an area of more than nine hectares, thirty-four towers and bastions, and six gates (Figure 7.2). On its landward sides there is an imposing tall and thick wall and on the exterior a smaller half-wall rising out of the scarp of a deep and wide ditch (on average 20 × 14 metres). The complex has three main subdivisions—the citadel, the garrison yard and the civil yard (Figure 7.3a); to the north, and below the main fortress is another section, on a level with the Dniester estuary, known as the port yard. The origins of Akkerman fortress are not well known. It was built on the site of Tyras, an ancient Greek colony of Miletus. The citadel came first—there have been versions of Ruthenian, Genoese and Moldavian origin dating to anywhere from the thirteenth to the early fifteenth century. During the century prior to the Ottoman takeover it was held by the Principality of Moldavia and the three main sections of the fortress were constructed.<sup>9</sup> What stands today is a rare, largely intact survivor of the great fortresses that once defended this frontier. In appearance it preserves much of the form of a high-walled late medieval fortress, though the thickness of the walls indicates that they were designed to face fifteenth-century cannon fire.

Prior to 2006, archaeological work concentrated on the port yard, the most wholly Ottoman portion of the complex, where two structures were unearthed—an enigmatic

<sup>9</sup> For the pre-Ottoman history of Akkerman fortress see Mariana Şlapac, *Belgorod-Dnestrovs'kaia krepost': Issledovanie srednevekovogo oboronnogo zodchestva* (Chişinău: Editura ARC, 2001), 51–61.

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However, despite attempts to colonise and sedentarise the Bucak, the Ottomans were unable to settle completely or otherwise eliminate its nomads. Instead, there were periods of nomadic resurgence. For example, in the first decade of the seventeenth century, a branch of the Nogays left the Volga–Don–Kuban region, crossed Crimean-controlled territory and established themselves in the Bucak steppe. There they were even better placed than the Crimean Tatars for slaving raids, being much closer to well-populated areas, such as the more westerly Ukrainian lands of the Kingdom of Poland (Podolia, so-called Red Ruthenia (the Lviv region), and Volhynia), and to the occasional rich target of opportunity of Moldavia. In the 1620s an intense rivalry arose between the Bucak Horde and the Crimean Khanate that would involve the Ottomans, Poland and the Zaporozhian Cossacks. The rivalry was not only a military and political one: with the success of the Bucak Horde in the slaving business, Akkerman challenged Kefe's position as the key Black Sea slave port.

<sup>7</sup> Halil İnalçık, 'The Ottoman state: economy and society, 1300–1600', in Halil İnalçık with Donald Quataert (eds.), *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge: Cambridge University Press, 1994), 285–95.

<sup>8</sup> *Ibid.*, 169–71; Gilles Veinstein, 'Les "çiftlik" de colonisation dans les steppes du nord de la Mer noire au XVII<sup>e</sup> siècle', *Istanbul Üniversitesi İktisat Fakültesi Mecmuası*, 41 (1982–3), 177–210.

Moldavia, at the far western end of the Black Sea frontier, by virtue of its natural features alone—considerable uplands and extensive forests—should be considered a transition zone rather than a fully-fledged part of the steppe frontier. Sandwiched between the lands of two large empires—regular Ottoman territories and those of Poland–Lithuania—it was largely a buffer state. Its geopolitical position subjected it to various, often disruptive, influences from all sides—Ottoman, Polish, Tatar and Cossack. Given this array of actors, can we even speak of the frontier at Akkerman as a simple stretch of the Ottoman northern Black Sea frontier that separated the Ottoman Empire from the northern countries of Poland–Lithuania and Muscovy? For in fact on this territory there were simultaneously several frontiers. It was not even, as where the Hapsburg, Venetian and Ottoman empires met, a *triplex confinium*, but rather a kind of ‘*multiplex confinium*’—the Ottomans versus Poland–Lithuania and the quasi-independent Ukrainian Cossacks, Moldavia versus the Tatars of the Bucak and of the Crimea, the Bucak Horde versus the Crimean Khanate. To the west of Akkerman was the Ottoman–Moldavian–earlier Lithuanian/later Polish frontier continuum.

### The Akkerman Fortress Project

The Akkerman fortress is a large complex with a circumference of more than two kilometres, an area of more than nine hectares, thirty-four towers and bastions, and six gates (Figure 7.2). On its landward sides there is an imposing tall and thick wall and on the exterior a smaller half-wall rising out of the scarp of a deep and wide ditch (on average 20 × 14 metres). The complex has three main subdivisions—the citadel, the garrison yard and the civil yard (Figure 7.3a); to the north, and below the main fortress is another section, on a level with the Dniester estuary, known as the port yard. The origins of Akkerman fortress are not well known. It was built on the site of Tyras, an ancient Greek colony of Miletus. The citadel came first—there have been versions of Ruthenian, Genoese and Moldavian origin dating to anywhere from the thirteenth to the early fifteenth century. During the century prior to the Ottoman takeover it was held by the Principality of Moldavia and the three main sections of the fortress were constructed.<sup>9</sup> What stands today is a rare, largely intact survivor of the great fortresses that once defended this frontier. In appearance it preserves much of the form of a high-walled late medieval fortress, though the thickness of the walls indicates that they were designed to face fifteenth-century cannon fire.

Prior to 2006, archaeological work concentrated on the port yard, the most wholly Ottoman portion of the complex, where two structures were unearthed—an enigmatic

<sup>9</sup> For the pre-Ottoman history of Akkerman fortress see Mariana Şlapac, *Belgorod-Dnestrovs'kaia krepost': Issledovanie srednevekovogo oboronnogo zodchestva* (Chişinău: Editura ARC, 2001), 51–61.

originally late fifteenth-century barbican-like structure jutting out of the shore wall towards the estuary (Figure 7.3a–b, Figure 7.4), and a late fifteenth or early sixteenth-century Ottoman bath-house, or *hamam* (Figure 7.5).<sup>10</sup> In addition to excavation, a GPS survey of the entire fortress complex commenced in 2006, and in 2007 a resistivity survey was begun. Examination and analysis by a fortress specialist was also carried out in 2006 and 2007.<sup>11</sup>

As far as the written primary sources are concerned, the historical team has so far directed its main efforts towards the Ottoman archives in the Prime Ministry Ottoman Archive and the Topkapı Palace Archive. Approximately 150 archival units have been located so far, and the search for relevant material is ongoing. The units consist of both single sheet documents, files of such documents, and bound registers (*defters*), and amount to about one thousand often large-format pages of text. Most of the fortress plans are in Russian archives and a good number have been presented in the works of Mariana Şlapac, in particular in her seminal historical architectural monograph on Akkerman fortress.<sup>12</sup>

### Akkerman in the Fifteenth to Seventeenth Centuries

We divide our survey of Ottoman possession and maintenance of Akkerman in the frontier context into two periods, an early (1484–1699) and a late (1700–1807) one. There are few documents on the fortress itself from the early period. The near silence in the documents and narrative sources on details of repair and construction suggests that in this period little or no *major* work was done to reconstruct the main parts of the fortress complex—the citadel, the garrison yard and the civil yard.<sup>13</sup> While there is record of some repairs to the existing structure, there is as yet no evidence of any planned reconstruction projects.<sup>14</sup> Typical for documents from this period are blanket statements about a given repair. For example, in 1608 an order sent to Akkerman and Bender states only that urgent repairs to Akkerman’s ‘upper tower’ (*yukaru kule*) are to

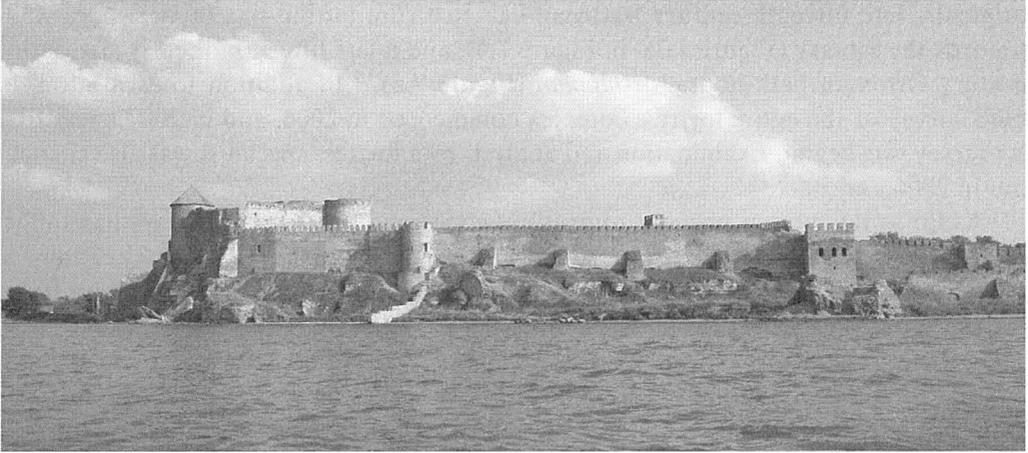
<sup>10</sup> Excavated by the Turkish team headed by Bozkurt Ersoy along with the Ukrainian team headed by Svitlana Bilyayeva.

<sup>11</sup> See James R. Mathieu, ‘An architectural assessment of the Fortress of Akkerman’ (2006–7), [www.akkermanfortress.org](http://www.akkermanfortress.org).

<sup>12</sup> Şlapac, *Belgorod-Dnestrovs'kaia krepost'*.

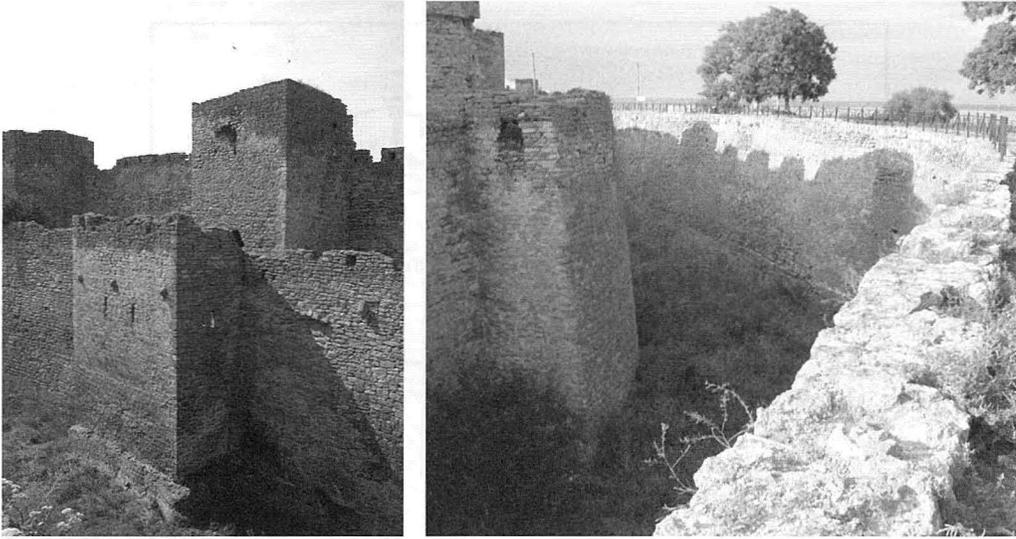
<sup>13</sup> Cf. the statement in a building register from 1737: ‘since the time of the conquest effort was not expended to repair the fortress as necessary’, BOA, Maliyeden Müdevver Defterleri (MAD) 3609, p. 227.

<sup>14</sup> Nor, contrary to what Mariana Şlapac says, is there any indication in Evliya Çelebi’s description of Akkerman that his patron and kinsman Melek Ahmed Pasha, re fortified the complex in 1657–8. Rather, he reports that Melek Ahmed Pasha ordered the ditch to be cleaned out, although this task may have been substantial, for apparently a huge amount of dirt and refuse—‘500,000 cartloads’—was removed and dumped into the estuary. Further, unspecified repairs were to be undertaken at various fortresses in the area including Akkerman. Earlier he makes it clear that a huge ditch (‘70 [sic] fathoms [*kulaç*] deep’) was there when Bayezid II arrived to conquer the fortress (Evliya Çelebi, *Seyahatname*, 5: 60, 63, 90).



**Figures 7.2a and b.** Views of Akkerman fortress. **(a)** Panorama from the *liman*. Left to right: citadel, garrison yard north-west wall, civil yard (Fireplace Tower and Water Gate, nos. 23 and 22 in Figure 7.3a); port yard is below the garrison and civil yard wall (from the restored round tower, no. 25, to the Water Gate, and beyond to no. 27, not in the photograph); remains of barbican in front of Fireplace Tower. **(b)** Citadel and garrison yard walls (right to left: Millet and Maiden Towers, Pasha Bastion, Fisher Tower (no. 30)). Photographs by Ihor Zhuk.





**Figure 7.2c and d.** (c) Main wall with Guardian Tower (no. 3) and part of Wheel Tower (no. 4), ditch scarp with topped half-wall, half-tower. (d) The ditch at Storeyed Tower (no. 11). Photographs by Ihor Zhuk.

be carried out, without providing any further details.<sup>15</sup> However, civil buildings in and around the fortress were constructed during this period. The great Ottoman traveller Evliya Çelebi noted that in the suburb (*varoş*, the civil yard?) there was a Bayezid II mosque with a single minaret (today assumed to have been where a single minaret survives on the foundation of a church),<sup>16</sup> as well as a Sultan Selim<sup>17</sup> mosque and *medrese*, other mosques and smaller *mescids* (neighbourhood mosques), and other buildings.<sup>18</sup> In one sixteenth-century survey register (*tahrir defteri*) there is evidence of about a dozen quarters<sup>19</sup> and, for example, a register from 1570 notes at least seventeen *hans* and caravanserais, seven grain depots, and 190 *vakıf* shops.<sup>20</sup> Being one of the largest and best fortified sites that the Ottomans inherited in the northern Black Sea region, it seems that its late medieval form was sufficient. This allowed it to withstand threats from traditional foes in the region, as well as to project power over the nomadic and settled inhabitants of the surrounding steppe and also protect the town of Akkerman outside the fortress as an emporium of Black Sea and Dniester River trade.

<sup>15</sup> BOA, Mühimme Defteri (MD) 81, p. 184, no. 407 (Safar 1017/17 May–14 June 1608).

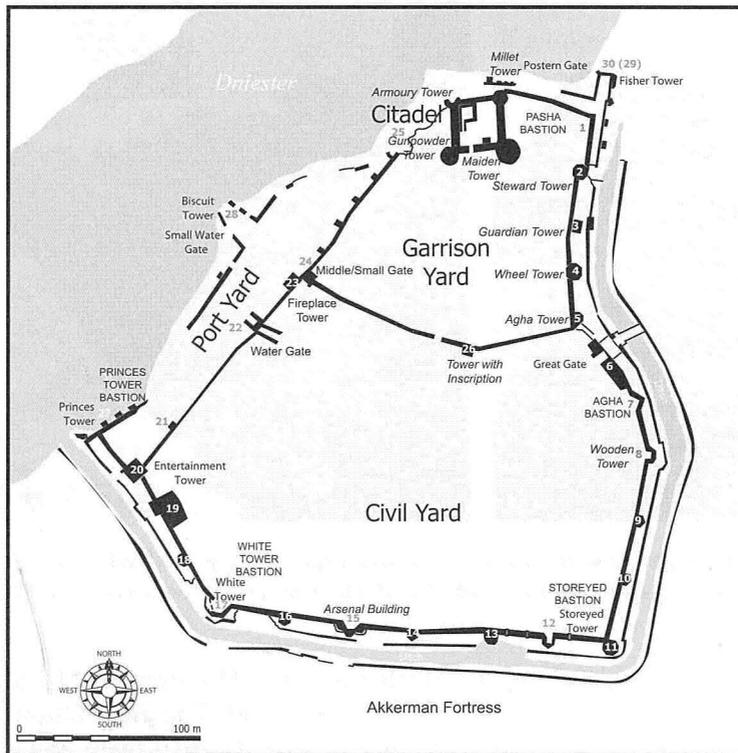
<sup>16</sup> If so, here Evliya's *varoş* may indeed be the civil yard, though the term could of course also be applied to quarters outside all the walls.

<sup>17</sup> Evliya Çelebi does not specify whether the mosque and *medrese* are of a *vakıf* endowed by Selim I (r. 1512–20) or Selim II (r. 1566–74), but note that Selim I stopped at Akkerman on his way from the Crimea to seize the Ottoman throne from Bayezid II in 1511.

<sup>18</sup> Evliya Çelebi, *Seyahatname*, 5: 63.

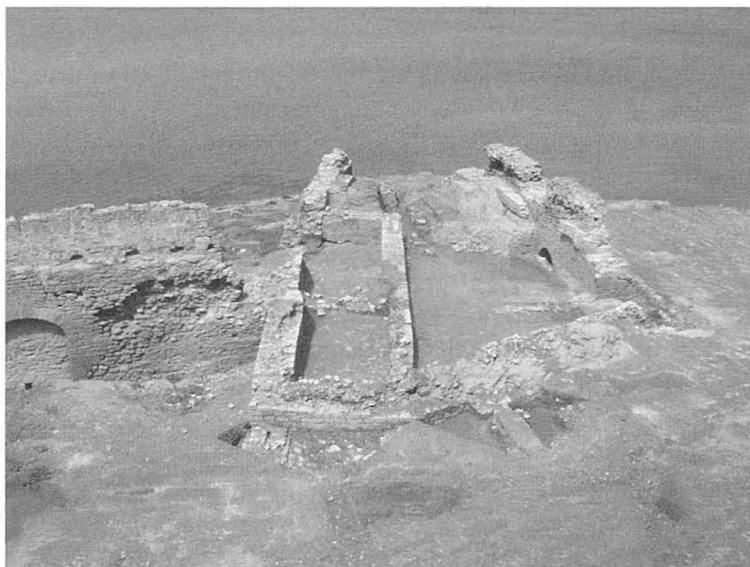
<sup>19</sup> Cf. *ibid.*; BOA, Tapu Tahrir (TT) 483.

<sup>20</sup> İlhan Şahin, 'XVI. Yüzyılda Akkerman'ın Demografik ve Sosyal Durumu', *Güneydoğu Avrupa Araştırmaları Dergisi*, 12 (1982–98), 319–23.



**Figures 7.3a and b.** (a) Akkerman with locations identified from Ottoman documents (*italics* indicate tentative identities). Plan based on the survey made in 1955, Mariana Şapac, *Belgorod-Dnestrovs'kaia krepost'*, 90. (b) Akkerman fortress (satellite image). Google Earth.





**Figure 7.4.** Barbican viewed from top of civil yard wall, next to Fireplace Tower (no. 23). Photograph by Victor Ostapchuk.



**Figure 7.5.** Port yard *hamam* (between Fireplace Tower and Water Gate). Photograph by Caroline Finkel.

### The Port Yard and Associated Structures

At the very end of the Moldavian or at the beginning of the Ottoman period, a new walled section, the port yard, was for some reason added to the original formidable complex. Architectural analysis of the surviving shore walls, which are much lower and thinner than the main walls of the fortress above them, and of their barbican-like protrusion, is still inconclusive. However, this suggests a late fifteenth-century origin, and excavated artefacts are overwhelmingly Ottoman, with little trace of Moldavian presence. Since both prior to and after the fall of Constantinople the Ottomans made several attempts to take Akkerman, fortification of the area below the main fortress and next to the estuary by the Moldavians would have made sense, especially if there were buildings or activity carried out there that were worthy of defending. No written sources known to us refer to a Moldavian port yard. Yet we do have an undated, but very early post-conquest Ottoman document referring to complete reconstruction of a low wall along the shore.<sup>21</sup> It is still unclear whether or not there was actually a port in the so-called port yard—certainly today the estuary here is very shallow and we know that in the eighteenth century there was a port or landing place (*iskele*) a few hundred metres downriver (the *Istanbul iskelesi*).<sup>22</sup> However, it is possible that river craft or boats launched from galleys anchored offshore would beach at the port yard.<sup>23</sup>

But what was the port yard intended to defend? Perhaps it served as a kind of extended barbican for the Water Gate (see Figure 7.3a, no. 22) and to hinder access to the sea walls where there was no ditch, but could it also have been built to protect structures and/or activities here on the shore of the estuary itself? So far, neither the very numerous artefacts nor the few documents of the period allow a sufficiently exact sequencing of the structures in the early port yard, and it is possible that the shore wall and barbican came into being before the Ottoman *hamam*. If so, it is impossible to tell whether it was built in anticipation of *hamam* construction or to protect some other object or activity. Traces of ceramic kilns and the remains of a cobblestone road, both dating to the late fifteenth to sixteenth centuries, have been excavated, which indicate activity behind the new sea wall. In any event it is likely that a *hamam* was built in the port yard some time during Bayezid II's sultanate. Writing in the mid-seventeenth century, Evliya Çelebi twice refers to this, as he calls it, 'little *hamam*', making it clear that it was 'below, in the outwork [port yard]' (. . . *ve aşağı hisar becede bir hamamcığı var*) near the estuary and named after Bayezid II.<sup>24</sup> A coin from the period of this same sultan was found during excavation of the port yard *hamam*, which suggests such a dating of the structure. According to a *vakıf* register from 1565–70 there were at least

<sup>21</sup> TSA, E.6237.

<sup>22</sup> Şlapac, *Belgorod-Dnestrovs'kaia krepost'*, 69 (Kauffer's general map of Akkerman town, 1793).

<sup>23</sup> Kauffer describes it as shallow here in the 1790s: BOA, Hatt-ı Hümayun (HAT) 56956.

<sup>24</sup> Evliya Çelebi, *Seyahatname*, 5: 62, 63.

two *hamams* at Akkerman, one in the port yard, ‘the Old Hamam in the outwork [port yard] of the fortress of Akkerman (*hamam-ı atik der hisar bece-i kale-i Akkerman*)’,<sup>25</sup> and ‘the New Hamam in the suburb of Akkerman (*hamam-ı cedid der varoş-i Akkerman*)’.<sup>26</sup> By this time both *hamams* belonged to the *vakıf* endowed by Sultan Selim I (r. 1512–20).<sup>27</sup>

Both by design and by construction the port yard bathhouse is indeed a late fifteenth/early sixteenth-century Ottoman *hamam*. It had at least two domes and a total area of approximately 8 by 20 metres. It was located just under the north-western wall of the civil yard and to the right when exiting through the Water Gate (see Figures 7.3a and 7.5). Between 1999 and 2006 the Turkish and Ukrainian archaeologists revealed parts of its sub-structural walls (*hypocaust*) and other walls such as those with heating vents. Thanks to the excavations, the spatial distribution of the disrobing space (*soyunalık*), cold space (*frigidarium* or *soğukluk*), warm space (*tepidarium* or *ılıkık*), hot space (*caldarium* or *sıcaklık*), furnace (*praefurnia* or *külhan*), and the water reservoir have become evident; revealed also is a complex hydraulic system of water pipes, drainage and sewers. The reason for the location of the *hamam* is not yet fully clear; it may have been because of water supply or drainage considerations or because the *hamam* was a component of the quarantine function of the port yard.<sup>28</sup> As we will see below, initially there was no *hamam* either in the garrison yard or perhaps even the civil yard. On the basis of material finds we do know that by some time in the seventeenth century this *hamam*, which already in mid-century Evliya Çelebi called an old-fashioned, dirty and odd structure,<sup>29</sup> changed function and became a workshop, where according to finds lead articles such as bullets were produced.

What we have tentatively called ‘the barbican’, with its two almost parallel walls (see Figure 7.3a, no. 28 and Figure 7.4),<sup>30</sup> plus an internal wall, a rear wall, and a round tower at its nose, is more of an enigma than the *hamam*. By the end of the twentieth century it was largely covered with earth, the tower having mostly collapsed since the

<sup>25</sup> Evliya Çelebi’s statement that the Bayezid Hamam was down below in the *hisar bece* combined with this phrase suggests that the port yard was referred to as a *hisar bece*, though this does not mean that the port yard was the only *hisar bece* at Akkerman (another one seems to be the half-wall extending up from the inner wall of the great ditch—of course there could be no *hamam* there). For the meanings of *hisar bece* see below.

<sup>26</sup> Here *varoş* could have referred to the civil yard or else to the town outside the entire fortress.

<sup>27</sup> BOA, TT 542, p. 40. While Selim I is not specifically mentioned as opposed to Selim II, as this *deFTER* was drawn up during the latter’s reign and refers to the ‘*evkaf* of the late Sultan Selim’ there is no doubt that the original Selim endowments belonged to the former.

<sup>28</sup> Cf. two *hamams* outside the fortress at Seddülbahir on the Dardanelles: see Chapter 9 by Lucienne Thys-Şenocak *et al.* in this volume and Lucienne Thys-Şenocak, *Ottoman Women Builders: The Architectural Patronage of Hadice Turhan Sultan* (Aldershot: Ashgate, 2006), 146, fig. 4.15.

<sup>29</sup> Evliya Çelebi, *Seyahatname*, 5: 63.

<sup>30</sup> In Figure 7.3a (based on the 1955 survey) near no. 28 only the two almost parallel walls, what we refer to as the north-east and south-west walls, are extant; since then we have excavated the rear wall, which is visible in Figure 7.4a and a very small part of the round tower, no. 28; the barbican with this round tower can be clearly seen below in plans of Kauffer and Förster (Figures 7.7 and 7.8).

early decades of that century. Its function is not yet clear and it certainly seems to have evolved over time, as we will see below (pp.158–60). The barbican's tower may have been an observation point or a lighthouse, and the entire structure may have defended the low shore walls by forward and flanking fire; alternatively, as a proper barbican, it may have stood in front of and defended an entryway into the port yard.

For the first two centuries of Ottoman rule we have almost no unambiguous written sources on this structure. One difficulty is that the term *hisar bece* (lit., 'fortress baby') can refer to a barbican, an outwork, and, as our experience in the later documents shows, also apparently a half-wall, such as that on top of the inner wall of the ditch. In the case of the port yard, it is often difficult to detect whether the entire outwork/shore wall is being referred to or only this barbican-like structure extending towards the estuary; for at least the early period it seems that the former is the case.

While documentary evidence is weak for this period, the excavations have shown that there was a gate on the south-western wall of the barbican connecting the estuary and the narrow space between the south-western and north-eastern walls (the Small Water Gate, near the no longer extant Tower 28 in Figure 7.3a), and another, larger gateway at the rear (south-east) of the barbican leading into the port yard via the cobblestone road. This would suggest that the structure was indeed a barbican in that it protected a larger gate leading into the yard beyond. In addition a doorway leading into the round tower, but lockable from the interior of the tower, has been revealed.<sup>31</sup>

The story of the barbican does not end here. We shall see that in the eighteenth century, what is normally considered a typical medieval structure, which should have been obsolete at least by the end of the first two Ottoman centuries at Akkerman, not only continued to function in the third, but underwent a transformation at the end of the Ottoman period. This element was very likely unique, at least on this stretch of the Black Sea coast—a sign suggestive of improvisation in defending a unique location on this frontier.<sup>32</sup>

### Documentary Evidence for Decision Making in Fortress Works

The first true test of Akkerman as a defensive structure under the Ottomans came in the second half of the sixteenth and lasted well into the seventeenth century with the massive Cossack onslaughts on the Black Sea. In the heyday of their naval raids in swift and highly seaworthy longboats that descended the Dnieper and Don Rivers, the Ukrainian Zaporozhian and Russian Don Cossacks managed to ravage the shores of

<sup>31</sup> Caroline Finkel *et al.*, 'Historical-archaeological investigation of Akkerman fortress, Ukraine 2007', *Anatolian Archaeology*, 13 (2007), 11–14, esp. 12, 13.

<sup>32</sup> According to Şlapac no other stone barbican has been found on the territory of the Principality of Moldavia. Şlapac, *Belgorod-Dnestrovs'kaia krepost'*, 135.

Rumelia and Anatolia and even enter the Bosphorus, as well as cripple Ottoman commercial shipping while putting great pressure on the imperial fleet. Settlements on the northern seashore were doubly vulnerable as they were liable to attack also by land expeditions. Our record of raids is not complete, nor often of sufficient specificity—the sources speak of ‘attacks’, ‘burnings’, ‘destructions’, ‘sacks’ and ‘plunderings’. We know of raids at Akkerman in 1574, 1577, 1583, 1587, 1594, 1595, 1602, 1606, 1609, 1610, 1614, 1616, 1625 and 1634, so within these years at least one raid occurred every 3.5 years. Probably it is no coincidence that our first series of documents concerned with security of the fortress and repairs is from the 1570s. Almost all of them are concerned with strengthening the port yard; it would seem that this sector, with its relatively low walls, was the part most vulnerable to the Cossacks, though there is no explicit articulation of this in the sources. But we do know that while the Cossacks were good with artillery on land battles, in their naval incursions into the Black Sea they relied on surprise and stealth and lighter weapons in taking fortresses (the most famous examples are the sackings of Sinop and Kefe in 1614 and 1616).<sup>33</sup> A low and narrow wall would have been vulnerable to scaling and surely had to be in a decent state of repair.

Despite the scarcity and less than explicit nature of the documentation of the development of Akkerman fortress prior to the eighteenth century—that is, the virtual lack of details on actual construction, such as on specific types of materials, measurements and techniques—what we have so far does supply information on aspects of the organisational infrastructure that underpinned construction and maintenance, such as the importation of labour and construction material,<sup>34</sup> funding,<sup>35</sup> urban development,<sup>36</sup> and aspects of planning and decision making. Here we give two specific examples of the latter.

Our first example of planning and decision making from the early period pertains to mostly local participation in such a process. The first step of a construction project was to assess the work that needed to be done, in both its qualitative and quantitative aspects, the latter including not only materials and dimensions, but also costs. This process was referred to by the word *keşf* (lit., ‘estimate, appraisal [of the condition or cost of something]’). Prior to the eighteenth century, occurrences with details of the

<sup>33</sup> Ostapchuk, ‘Human landscape’, 44–7.

<sup>34</sup> For the sixteenth century, most often workers and timber from Moldavia: BOA, MAD 55, fols. 76a–77a; MD 26, p. 277, no. 798 (983/1575–76); MD 29, p. 142, no. 349 (14 Zilkade 984/2 February 1577).

<sup>35</sup> Mostly transfer of tax revenues collected locally or in nearby areas: BOA, Ibnülemin Askeri 1400.

<sup>36</sup> The restriction and when necessary removal of houses and shops built too close to the walls so as to avoid endangering the defence of the fortress: BOA, MD 16, p. 199, no. 386 (979/1571–2); MD zeyl 3, p. 72 (983/1575–6). Complaints by garrison troops that owners of houses inside the fortress have been selling their property to outsiders (non-troops and/or non-residents of the fortress), thereby leaving the troops who are to reside inside the fortress with nowhere to live and making it difficult to bring replacements when their service at the fortress is over: BOA, MD 73, p. 375, no. 825 (1003/1594–5).

*keşf* processes are rare, and only occur towards the end of the seventeenth century, when a reform appears to have been made regarding the way construction projects were documented (though we can never be totally sure that previous records have simply not survived).<sup>37</sup> Our first example is documented in a *kadı*'s certificate (*hüccet*). The previous destruction of the roofs of several towers by lightning strikes required that they be rebuilt, which was carried out in 1673 and 1674. Local experts in construction and roofing (*ebniye ve sukuf ahvaline vukuf-i tamam olanlar*), carpenters (*neccarlar*—both Muslims and non-Muslims are listed by name in the document), and provincial notables (*ayan-ı vilayet*), were summoned to a meeting of the *kadı*'s court and contracted to carry out the necessary work. There, upon their testimony, some of the costs for the required work were registered. In a related document the amounts and costs of the necessary wood are recorded.<sup>38</sup> In addition to local authorities such as the *kadı*, the centre was both directly and indirectly involved. Present at the procedure in the *kadı*'s court was a court official (*müteferrika-ı dergah-ı alî*) appointed by the Porte as the 'executor' (*mübaşir*) of this repair; the *hüccet* that is the source on this case ended up in Istanbul as it was probably drawn up to inform and certify that local forces and funds were contracted for the work at hand.

Our second example for the early period pertains to decision making at the centre as opposed to on-site. It does not relate to construction works *per se*, but rather to the defence of the port yard during the years of the first known Cossack attacks on Akkerman. Because it is a good example of the prerogative of the centre in running this fortress, we present it in some detail. An order from the Porte dated June 1576 summarises a request for permission by the *kadı* and fortress warden (*dizdar*) of Akkerman that the gate leading into the port yard (*hisar bece*) from the garrison yard (the Water Gate, Figure 7.3a, no. 22) be opened by the time of the voluntary prayer between midnight and dawn (*temcid*), and certainly by the time of the first, daybreak prayer (*sabah namazı*). This was necessary, so the petitioners asserted, because there was no bathhouse inside the fortress proper where the congregation could bathe (*istihmam*) prior to prayer (presumably perform the ritual ablutions?), and the only place for this was the Sultan Selim *hamam* (i.e., probably the original Bayezid *hamam* described by Evliya Çelebi, now under the *vakıf* of Selim I, see above).<sup>39</sup> In the *dispositio* of the document, giving the order to be implemented, it is somewhat equivocally decided that indeed the gate into the port yard may be opened before daybreak during the season of the *temcid* (the months of Receb, Şaban and Ramadan) and in the winter as long as the security of the castle is not compromised. Aside from conveying a clear sense of the danger

<sup>37</sup> Caroline Finkel and Victor Ostapchuk, 'Outpost of empire: an appraisal of Ottoman building registers as sources for the archaeology and construction history of the Black Sea fortress of Özi', *Muqarnas*, 22 (2005), 154.

<sup>38</sup> BOA, Cevdet Askeri (CA) 1622 (*hüccet*); CA 26925, p. 1 (*defter*).

<sup>39</sup> Here either the petitioners are misrepresenting, for by this time, as we saw above, there was at least one other *hamam*, or perhaps this *hamam*, in the *varoş* (i.e. the civil yard, suburb or town), was, from the perspective of the garrison troops, located outside their fortress, i.e. the citadel and garrison yard.

prevalent during this period, and of the vulnerability of the port yard which prompted such caution, this document is interesting for suggesting a high degree of centralisation in decision making. Did a change in the status of a gate in a distant frontier fortress require clearance at the centre, or was this a case of a mere conflict of the garrison and inhabitants with the *dizdar*?<sup>40</sup>

### Akkerman in the Eighteenth and Nineteenth Centuries

For the late period (eighteenth to beginning of nineteenth century) of Ottoman presence at Akkerman we currently have close to ten times as many Ottoman documents as for the first two centuries. From what we have observed on-site and on the basis of the surviving documentary record, as well as references in narrative and other, non-Ottoman, sources, the eighteenth century was not only a period of much more intense repair and maintenance activity, but also a period when projects of redesign and reconstruction were undertaken. Presently we still have only a rudimentary sense of the precise building periods. As can be expected, building activity tended to occur on the eve of, during, or in the aftermath of the wars or serious diplomatic conflicts between the Ottoman and Russian Empires: 1710–11, 1735–9, 1768–74, 1783 (Russian annexation of the Crimea), 1787–92 and 1806–12. The documentation relating to this period's more significant repair and reconstruction activity has clustered most heavily within the following years: 1707–9, 1737, 1756–7 (no obvious war connection), 1775–8, 1783–4, 1788–9, 1792–8, 1803–6.<sup>41</sup> The relatively great abundance of eighteenth- and early nineteenth-century Ottoman archival material is not only due to the greater preservation of documents from more recent centuries. It seems that by the eighteenth century the Ottoman bureaucracy, and in particular the financial administration (*maliye*) that generated or acted as repository of most of the construction-related documentation, began to keep more detailed inventories of the items for which costs were incurred. So it recorded explicit descriptions and discussions of projects, rather than only keeping accounts of costs of building materials, transport and labour without specific details. Often this data was recorded in special registers (*defters*) with marginal notes explaining the figures and items registered and in addition, with copies of reports (*arzlarza-dašt*) or memoranda (*kaime*) sent by officials and experts in the provinces where the

<sup>40</sup> BOA, MD 28, p. 114, no. 273 (20 Ramadan 984/11 December 1576).

<sup>41</sup> We note that taking into account that the last quarter of the eighteenth/first years of the nineteenth century was a time of constant war or diplomatic crises with the Russian Empire, the correlation may be even stronger than the figures suggest; this does not rule out non-crisis-related repairs—more sorting out of the building data and military-diplomatic data is necessary. Cf. Chapter 9 by Lucienne Thys-Şenocak *et al.* in this volume, where repairs to Seddülbahir were made in response to damage by natural causes rather than military action. Might it have been that this fortress on the Dardanelles was essentially strong enough for the real or potential threats it encountered? Clearly Akkerman in the eighteenth century was no longer, otherwise there would be no rational explanation for the expense and effort incurred beyond major corruption (for which we so far have no evidence).

construction was carried out, decisions and orders (*ferman/hüküm*) issued at the centre, and various other types of documentation (*hüccet, tezkere*). As these *defters* frequently contain estimates and appraisals, they are often referred to as *keşf* or *tahmin defteri* ('appraisal/estimate register') or, for example, *keşf ve tamirat defteri* ('appraisal and repair register'). The typology of these registers has yet to be worked out, but for now we simply refer to them as 'building registers' (for an example see Figure 7.6).<sup>42</sup> We have so far located twelve such building registers for Akkerman, covering 1709–10, 1737, 1756–7, 1775–8, 1784, 1794–6 and 1800. The majority of our Ottoman documentation from this period consists of unbound, usually single-sheet documents, indeed, the component parts of the building registers—reports, orders, inventories and other types of documents. Often these have been preserved together, in effect as files devoted to a given construction project, and thus practically amount to building registers themselves—after all, the building registers themselves are largely 'scrap books' consisting of copies of various documents. In any event, eighteenth-century Ottoman building documentation is both more numerous and more informative than that for earlier periods, for it allows glimpses if not views of the various stages of a building project, from initial discussion and planning to financing and execution.

What does the extensive detail in the Ottoman building registers and separate documents concerning eighteenth-century construction and repair work on the fortress tell us about the Akkerman segment of the Black Sea frontier? Practically every pertinent passage in our documents helps us to reconstruct our frontier region with more or less significant facts—certainly they have more data than we could hope to present here. But what does information on construction and repair, for example, the anatomy of the walls, towers and ditch of a fortress, construction techniques, building materials, and problems and their solution tell us about our frontier *qua* frontier? Given our current knowledge of Ottoman fortifications, probably very little—how did construction at Akkerman differ from construction in other frontier regions, such as at Özi or Azak, or further afield, at Fethülislam (Kladovo) opposite the Hapsburg frontier, or on the Iranian frontier at Kars or Basra? What about on an internal frontier, such as at Niğbolu (Nikopol) or Rusçuk (Ruse) vis-à-vis the Principality of Wallachia? Easier to answer would be how work at Akkerman would compare with upkeep of non-frontier fortresses, such as Kastamonu or Ankara, fortresses which no longer played vital roles in defence against serious foes and were left behind in time. Perhaps many basic building techniques were the same everywhere and changed little over time, though without evidence, be it written, drawn or material, we cannot say much about techniques employed and materials used at non-frontier fortresses. But one can deduce and even observe at surviving sites that fortresses away from the frontier that did not have to face modern armies developed little and kept their largely medieval appearance, and thus repair techniques and materials may have continued with little or no change. This

<sup>42</sup> Finkel and Ostapchuk, 'Outpost of empire', 154–5.

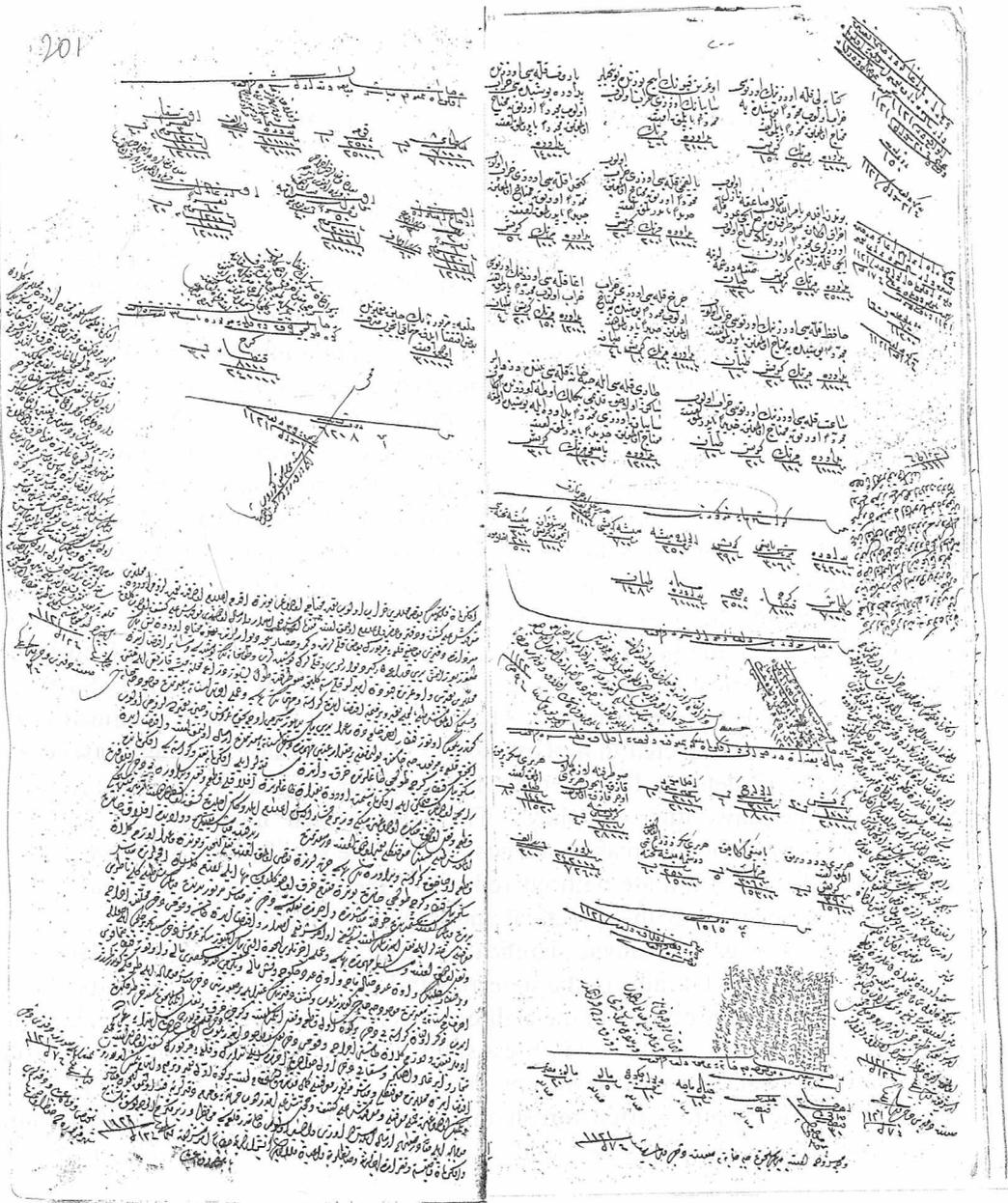


Figure 7.6. Sample pages from a building register including works carried out at Akkerman in 1709 (details on procurement and quantities of materials, such as wood, nails, lime, for repairs of tower roofs and other portions, as well as on labour imported from other regions). BOA, MAD 3882, 200-1.

cannot be said of eighteenth-century frontier fortresses influenced by new challenges and consequently new techniques, often emanating from Europe.

### **The Ottoman Response to Advances in Fortification Technology**

By the end of the seventeenth century the Ottomans had begun to construct fortresses with thick earthen ramparts and solid bastions capable of withstanding cannon fire, as well as, by means of forward and flanking fire from the bastions and with handgun fire from parapets and covered ways, protecting such fortresses from mining and other forms of close attack. This relates to the original sixteenth-century *trace italienne*, which progressively developed into complex systems combining elements such as the bastion, ravelin, tenaille, ditch and glacis, pioneered most famously by the Frenchman Vauban (1633–1707). Like the Hapsburgs, because of the great expense, the Ottomans were selective in the fortresses they chose for such modernisation and only the most strategic fortresses were rebuilt in the new style, and even then usually not in pure ‘Vaubanian’ form, but only applying elements considered indispensable.<sup>43</sup> For example, at the fortress complex of Özi-Kılburun which straddled the mouth of the Dnieper, at the end of the first decade of the eighteenth century, the first plan was to cut down the high towers of the medieval-style Özi fortresses and fill them with earth so as to turn them into bastions of the sort on which heavier artillery could be mounted. Instead, outside of the old castle a new ring of ramparts with still rather rudimentary bastions and a ditch and glacis were constructed. The old castle inside this ring remained until at least the 1730s (it is depicted in a plan from 1737): it may have been left to serve as a possible last line of defence. However, we do know that the towers were used to store ordnance and perhaps other supplies.<sup>44</sup> There was much improvisation in Özi’s ‘Vaubanisation’, probably for reasons of cost and, more significantly, because of tactical needs. Rather than imitate without reflection, the Ottomans seem to have been applying western technology in a practical and intelligent manner.<sup>45</sup>

While Özi was of great strategic significance, as it guarded entry to the Black Sea against the Cossacks of Ukraine in the sixteenth and seventeenth centuries and against the forces of the Russian Empire in the eighteenth century, Akkerman lost much of its importance once Moldavia was more or less subdued in the sixteenth century and still more when the Cossack sea raids waned by the second half of the seventeenth century. When the Russian Empire started threatening and making incursions into Ottoman possessions north of the Black Sea and into the Danubian region, Akkerman was

<sup>43</sup> Rhoads Murphey, *Ottoman Warfare, 1500–1700* (New Brunswick: Rutgers University Press, 1999), 111–14; Finkel and Ostapchuk, ‘Outpost of empire’, 161 ff.

<sup>44</sup> Finkel and Ostapchuk, ‘Outpost of empire’, 164, 180.

<sup>45</sup> *Ibid.*, 177.

usually ignored. Bender, situated at an easier crossing of the Dniester upriver from Akkerman, was more important for defending the approaches to Rumeli. Consequently, in the first half of the eighteenth century we see a less determined effort to modernise the fortress at Akkerman than at Özi or Bender.

There was another factor that shaped the development of Akkerman fortress. Unlike Özi, where sandiness of the soil led its original builders to forgo digging a moat or ditch,<sup>46</sup> in Akkerman, as already stated, a deep and wide ditch (approximately 20 × 14 metres) had been dug along the landward sides of the fortress even prior to the Ottoman takeover. This impressive and formidable obstacle combined with the wide walls meant that when it came time to consider modernising it in the eighteenth century, it would have made little sense to fill and re-dig the ditch further out and dismantle or rebuild the walls to accommodate a proper modern trace with bastions and outworks such as ravelins and redoubts in place of or beyond the old trace. To do so would have cost more in terms of both manpower and money than the strategic importance of the fortress merited. In other words, having such a formidable edifice, the Ottomans chose to save their resources, and, in order to face modern artillery, to strengthen rather than radically rebuild it. So they kept the ditch and instead strengthened the walls and towers by several methods. The exact chronology of their efforts is still uncertain, but it is clear that they piled up earth *behind* the old walls thereby reinforcing them and providing platforms for cannons. They made sure that most of the originally hollow towers were sufficiently filled with earth to withstand cannon fire. In at least three places, where the trace made an angular turn—between the Great Gate and Tower 7 (for the numbered towers and other features see Figure 7.3a), at the Storeyed Tower (Kath Kule, Tower 11) and at the White Tower (Ak Kule, Tower 17)—they created what can be called ‘internal bastions’ by packing earth into the interior side of these corners and probably reinforcing them with timber and other fill. Each of these bastions included a stone casemate. Thereby the Agha Bastion (Ağa Tabyası, linking Towers 6 (= Great Gate) and 8), the Storeyed Bastion (Katlı Tabya, linking Towers 10 and 12), and the White Tower Bastion (Ak Kule Tabyası, linking Towers 16 and 18) were created.<sup>47</sup> Another bastion, the Pasha Bastion (Paşa Tabyası, between the north-west tower of the citadel and point no. 1 in Figure 7.3a, tentatively identified as the Millet Tower), which faced the estuary to the north, was formed by building up earth behind the wall and placing a row of large cannon embrasures on top of the original stone wall. Though called a bastion (*tabya*), this structure was more of a wide gun platform.<sup>48</sup> The earth that had been piled up to thicken the straight stretches of wall

<sup>46</sup> In the eighteenth century a faced ditch was put in after installing a new trace. Finkel and Ostapchuk, ‘Outpost of empire’, 166, 168.

<sup>47</sup> BOA, Bab-ı Defteri Baş Muhasebe Bina Emini (D.BŞM.BNE) 16070, pp. 5, 15, 16.

<sup>48</sup> Mathieu developed the notion of the improvised modernisation of Akkerman (including identification and interpretation of the internal bastions) in his ‘Architectural assessment’ (see n. 11 above).

and create the internal bastions and sea-side gun platform was bulldozed away some time after 1955.<sup>49</sup>

The term *tabya* may be rendered as ‘bastion’ (the meaning of the original Arabic in non-Ottoman contexts includes *pisé* (rammed earth), tower, and bastion), but if the rendering as bastion is meant only to refer to standard triangular redoubts or pentagonal bastions, it fails to describe the range of usages in the Ottoman context. While *tabya* may indeed denote such bastions as can be seen in Ottoman translations of Vauban’s treatises,<sup>50</sup> this term was also applied in the documents to the improvised internal earthen structures built to strengthen the fortress as well as to the gun platform at the Paşa Tabyası. On the other hand, we have not encountered this term denoting a simple straight earth-reinforced wall. This suggests that in modifying the fortress at this time, the Vauban concept of bastion was probably operative as an archetype—otherwise the simple earth-reinforced walls would probably also be referred to as *tabya*. Before eighteenth-century fortification architecture with its key element, the bastion, was incorporated into Ottoman fortress construction, the term *tabya* seems rarely to have been used, which further suggests that *tabya* denoted modern bastions and bastion-like structures.

After the 1789–92 war against the Russian Empire, the Ottomans brought in the Alsatian engineer François Kauffer to propose a radical redesign of Akkerman fortress, among a number of other fortresses in the region. In the Ottoman archives we have only Ottoman translations of Kauffer’s proposals; the plans he drew and refers to have been lost or misplaced. However, perhaps because he was at the same time allegedly an informant for the Russians, he also supplied copies of his plans to them and today they are preserved in Moscow archives. One such, dating from 1793, shows three possible new traces involving triangular redoubts and pentagonal (external) bastions (Figure 7.7), all extending beyond the old main ditch, with no new ditch, only a glacis. On the basis of a post-conquest plan made for the Russians in 1807 by E. H. Förster, an engineer and major-general in the tsar’s army, by then only one set of four triangular redoubts (two large and two small ones) either had been made or was being planned (Figure 7.8). With the help of geophysical survey and further scrutiny of the documents and plans we hope to be able to determine as precisely as possible what sort of trace or traces were actually installed outside the ditch. Certainly a glacis was built up. Its remnants can still be observed today outside the south wall of the civil yard.

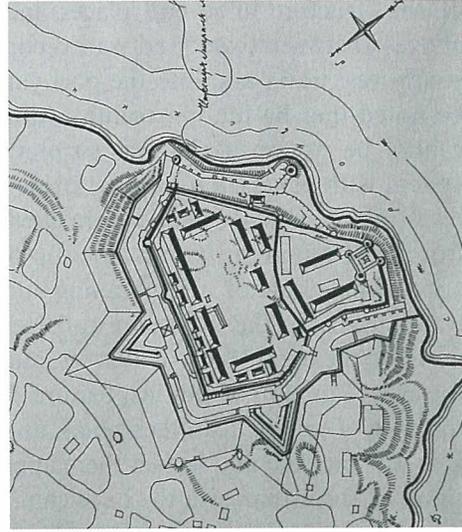
The curious barbican in the port yard is another matter, for the eighteenth-century Ottoman documents retrieved to date offer little information on this structure and only archaeology combined with visual documentation allows us to note its development in the eighteenth century. During the 2007 season, excavation revealed the original floor

<sup>49</sup> The piled-up earth can be seen in old photographs and it is recorded by contour lines in the 1955 survey of Akkerman. Šlapac, *Belgorod-Dnestrovs'kaia krepost'*, 90.

<sup>50</sup> e.g. Sebastien Le Prestre de Vauban, *Fenn-i Muhasara*, trans. Konstantin İpsilanti (Istanbul: İbrahim Müteferrika, 1209/1794–5), 33ff.



**Figure 7.7.** A plan by Kauffer (1793). Russian State Military-Historical Archive (RGVIA), fond 846, inventory 16, file 21610.



**Figure 7.8.** Förster plan (1807). *Şlapac, Belgorod-Dnestrov's'kaia krepost'*, 73 (Figure 32). Reproduced with permission.



**Figure 7.9.** Detail of a plan by Kauffer (1793). RGVIA, fond 846, inventory 16, file 21608.

of the structure in several places, including the three entryways already mentioned above—between tower and walled corridor, into the fortress from the estuary (on the south-west wall), and into the port yard in the rear (on the south-east wall). It should be noted that by the nineteenth century this entire structure was of two storeys (we cannot be certain if this was so previously). In addition, a fireplace and a heating-system with ventilation passing inside the walls, discovered in 2006, have been further investigated, as well as gun embrasures that were cut into the side walls. A Russian coin from 1754 found *in situ* near the top of one of the surviving wall remnants shows the approximate date of a re-planning and rebuilding of the barbican. A shorter internal wall, parallel to the two main walls near the back, has also been discovered. It reveals more of the complexity of this structure, though we have not yet been able to suggest the exact function of this last feature. Most interesting is that some time between 1793, the date of one of Kauffer's plans, and 1807, just after the Russian conquest, the side gate was blocked and in fact there appears to have been no entrance into or out of the shore of the estuary via the barbican.<sup>51</sup> As another Russian plan dated 1807 indicates, there were four gun ports on the side walls providing fire forward of and along the shore wall in both directions.<sup>52</sup> Probably at the same time that these ports were installed, a new opening was broken through the shore wall (or had been opened by enemy cannon fire?) and a gate was put there, today filled in but clearly visible. Guarding the wall, and the new gate, the barbican ceased to function as barbican, that is, a structure blocking access to a main gate, and instead, functioned more as a kind of bastion or redoubt with a round tower (the latter may have continued as an observation post or a lighthouse). As we cannot be sure whether this last alteration to the barbican occurred before or after the conquest, we can only say that the improvisational nature of this structure continued to the very end of the Ottoman period or even beyond.

### The Infrastructure of Maintenance and Construction

For the eighteenth century we are in a much better position to gauge how decisions on maintenance and the building of new structures were influenced by perceived threats and priorities arising in the frontier context. The documents are revealing of frontier realities relating to organisational infrastructure, giving access to a wide spectrum of data concerning information gathering, planning, decision making, and resource allocation.

Here we can only give brief characterisations of these organisational aspects along with a few examples. Let us start with those involving the command and control or the

<sup>51</sup> The exit and entry to the port yard via the barbican is still visible in one of Kauffer's plans, where we can clearly see the road meandering through the port yard, from the Water Gate, into the rear of the barbican, through the barbican, and turning left out to the estuary by the side gate (Figure 7.9). Note that in the prospective plan of Kauffer (Figure 7.7), the barbican is drawn without any gate: this either indicates a planned alteration or is more likely a mere simplification of a feature irrelevant to his planned bastions.

<sup>52</sup> Šlapac, *Belgorod-Dnestrovs'kata krepost'*, 135, fig. 84a.

management of works at a fortress such as Akkerman. At the top were the chiefs of state acting in the name of the sultan, such as the grand and other viziers and the chief of the imperial finance administration (*baş defterdar*), while at the bottom, the local *sancakbeyi* and the *kadı* (along with the *naibs*, his assistants, or substitute judges). Perhaps surprisingly, the *kadı* (and often the *naib*) is encountered much more frequently in the construction-related documentation than the *sancakbeyi*. His role may appear greater than it really was, thanks to his function in registering documents, such as orders (*hükmlferman*) that arrived from the centre or in issuing certificates (*hüccet*). However, he was also active in local affairs beyond recording or issuing state documents and other functions such as adjudication or registration of marriages and inheritance transactions. We have already seen the case of personnel, costs and materials for a major repair of tower roofs after lightning strikes in the early 1670s being authorised in the Akkerman *kadı*'s court. Finally, aside from their duties in matters of taxation, both inside and outside the court (for instance, as inspectors, *müfettis*, of tax farming operations), they often acted in matters concerning the financing of fortress garrisons and infrastructure.

A key role in works on fortification was commonly played by the *bina emini*, or chief of construction (lit. 'construction trustee'), who was positioned between officials in the centre and those in the provinces. This was an ad hoc appointee, often one of the royal architects (*mimar-ı hassa*). The best-documented functions of the *bina emini* are connected with the information-gathering and planning activity carried out before the commencement of work. The inspection of the site and appraisal of work to be done, including an estimate of the costs and necessary materials—which often resulted in a *keşf defteri*—would typically be carried out under his supervision. When a *keşf* was drawn up, it served as the basic document for the project in question—other orders and memos would refer to what was laid out in it.<sup>53</sup> On occasion we see other officials at Akkerman entrusted with supervision of the initial on-site planning and of the drawing up of the *keşf defteri*—*sancakbeyis*, *kadıs*, even *naibs*.<sup>54</sup> For the researcher, the apparent lack of consistency in the choices of profession for such a key role can be somewhat baffling. However, such practices may simply be a manifestation of Ottoman adaptability to situations when optimal personnel were unavailable, as well as something akin to the modern business practice of appointing non-specialist managers.

<sup>53</sup> e.g. on *bina emini* see BOA, MAD 3162, p. 130; D.ŞM.BNE 15923, p. 2; D.ŞM.BNE 16/36 etc.; on it being drawn up by one of the royal architects (. . . *ma'rifeti ve ma'rifet-i şer' ve mi'mar halifelerinden Seyid Ömer Halife ma'rifetle keşf*) see CA 49171; for an example of the chief gatekeeper (*ser-i bevabin*) as *bina emini*, see D.ŞM.BNE 20/25.

<sup>54</sup> BOA, MAD 3882, p. 199: *bera-yi keşf ve tahmin-i kale-i Akkerman ki ba'zı mahaleş münhedim ve ta'mireş muhtac bude ve bi-ma'rifet-i mubaşir ve vezir-i mukerrem Yusuf Paşa vali-i Özi ve ma'rifet-i şer keşf ve tahrir ve defter ve 'arz ve ilam şude fermude ber-muceb-i ilam ve vezir-i mukerrem Yusuf Paşa vali-i Özi ve der-kenar ve telhis ve ferman-i 'ali fi 19 Receb sene 1121 (24 September 1709) emr dade fi 20 Receb-i m (25 September 1709); see also MAD 3162, p. 130; MAD 9917, p. 9.*

Unfortunately in such cases the documents refrain from referring to specialist assistants. What was most important seems to have been to record who was responsible for a given process.<sup>55</sup> Aside from the *keşf defteri*, simple reports from Akkerman to the centre, which were often the impetus for the initiation of actual construction work, contain information on the site that was used in the planning process. Indeed, as already stated, a significant portion of the building registers consist of copies of reports, orders (which usually reiterated the reports to which they were responding), and other documents, in addition to the quantitative data concerning measurements, personnel, materials and costs. The fact that they were often if not usually drawn up in the centre, and certainly preserved there, is testimony to the key role played by officials at the centre.

While Akkerman was a nexus for trade and the surrounding steppe supported herding and some agriculture, all of which generated local wealth and consequently tax revenues that could be designated for maintenance and construction of the fortress, as was the case at other fortified points on the northern Black Sea coast, there were insufficient non-fiscal resources (and often fiscal resources as well) for such works. In practically every construction project at Akkerman for which the documentation is extensive enough to cover labour and materials, there is an indication that much had to be imported from neighbouring regions. Both skilled (e.g. carpenters, *neccar*) and unskilled (*ırgad*) workers were brought, usually by ship or boat, though sometimes by wagon as well, from near and distant places on the Rumelian Black Sea coast, on the Danube, in Bulgarian hinterlands, in Moldavia and Wallachia, and even from as far away as Albania.<sup>56</sup> As to materials, while brick, stone and lime are mentioned, the main imported material was timber—logs and lumber cut to various specifications. Wood almost always came from Moldavia.<sup>57</sup> When funds levied from local tax revenues to cover the materials, labour and transport costs did not suffice, they would be transferred from those revenues levied in neighbouring areas (the *havale* system). Typically these were customs revenues or, when from Moldavia or Wallachia, *cizye*.<sup>58</sup>

The active participation of the centre in organising, approving and enforcing the transfer of human, material and financial resources to construction work at Akkerman is always evident, and its control over information on these resources is impressive. At times the building register is almost a kind of spreadsheet listing what large and small items and quantities—be they wood and lime, instruments, means of transport—can be found in Rumelian provinces or along the Black Sea frontier. Major and even many

<sup>55</sup> Hence, there is frequent use of the phrase common in Ottoman documents relating to many spheres, *bi-ma'rifet-i* . . . , which in this context means not 'by the knowledge of' but rather 'by the action of', with the implication being 'with the responsibility of'.

<sup>56</sup> e.g. from the *kazas* of Babadağı, Mangalya, Karaharman, Niğbolu, Zıstovi, Rusçuk, İsmail, Şümni, Isakci, Hezargrad, Ternova, Ivraça, Plevna, Eski Cuma, Lofça. BOA, CA 26067; CA 47302; CA 40292; CA 52691.

<sup>57</sup> BOA, MAD 3882, p. 200; CA 16049; CA 49185; CA 48020; CA 52778.

<sup>58</sup> BOA, MAD 3882, p. 200; CA 47302; CA 48020; Cevdet Mütevellii 851.

seemingly minor decisions needed to be made or at least approved in the capital. Moreover, the degree of micromanagement of fortress affairs over such long distances is at times striking. An example is the case of replacing the locks of the gates at Akkerman. We have a petition from Akkerman and an order to its *kadı* and *dizdar* dated to 1766 in which there is a rather detailed discussion of where to come by ten locks that were needed to replace old and worn out locks in the fortress for the Great, Middle, Water, Postern and other gates. The locks are described as great and medium-sized, fortress locks (*kale kilidi*) and hanging locks (*asma kilidi*). What was available in the armoury (*cebehane*) at Akkerman turned out to be insufficient and in the end an order was issued that if the old locks cannot be repaired, the required number must be released from the imperial armoury for transfer to Akkerman. In the process a slew of officials, some of rather high status (such as the *baş defterdar*), were involved in the decision-making and execution process.<sup>59</sup> Perhaps fortress locks were a matter of high security and not trifles, and such centralised micromanagement was not unjustified?

### Archaeological Evidence for Frontier Life at Akkerman

So far we have sought to show how historical and historico-archaeological study of the development of the fortress at Akkerman can inform us regarding the Ottoman frontier at Akkerman. However, the archaeology has produced a large volume of material not directly related to the fabric of the fortress, but rather to life in and around it that has implications for our understanding of the frontier in ways that our written sources so far do not. By the end of the 2007 excavation season more than 17,000 artefacts had been unearthed in the port yard, consisting of different groups of ceramics (pottery and pipes), metal, glass and others (for percentages see Table 7.1). These artefacts already include both imported and locally made goods.<sup>60</sup>

All types of ceramics, which make up 85.3 per cent of the finds, include relatively high frequencies for some prestige and other items (for percentages see Table 7.2). In the thirteenth and fourteenth centuries sgraffito pottery was the most commonly used glazed ware in the Ottoman Balkan and Mediterranean regions. Sgraffito ware was found on numerous sites in Özi (both on the territory of the old fortress and in the

<sup>59</sup> BOA, CA 49354.

<sup>60</sup> For example, numerous groups of unglazed and glazed ware were produced in Akkerman; the same holds for several items of metal found in the port yard. For the thirteenth and fourteenth centuries, A. A. Kravchenko found nine kilns for ceramic production outside the Akkerman fortress (A. A. Kravchenko, *Srednevekovyi Belgorod na Dnestre (konets XIII–XIV vv.)* (Kiev: Naukova Dumka, 1986, 38–46)). In the course of our excavations in the port yard several traces of ceramic (e.g. tripods for glazed ware production), metal and bone article production were established; we reiterate that we have also found evidence that the *hamam* structure in the port yard was used in metal craft production no later than the second half of the seventeenth to eighteenth centuries.

**Table 7.1.** Percentages of finds from the port yard at Akkerman fortress.

Items	%
glazed ware	35.0
unglazed and partly glazed ware	30.2
quartz-frit pottery	8.8
smoking pipes	8.0
metal artefacts	7.3
glass	5.6
sgraffito ware	1.5
Miletus ware	1.0
chinaware	0.8
others	1.8

**Table 7.2.** Percentages of ceramic wares from the port yard at Akkerman fortress.

Items	%
unglazed ware	39.0
monochrome glazed ware (green, yellow, brown)	38.4
Kütahya quartz-frit pottery	8.0
polychrome glazed ware (marble)	6.7
Iznik quartz-frit pottery	3.4
sgraffito ware	2.0
Miletus ware	1.3
chinaware	1.1

town), as well as not far from Özi at the settlement of Dniprovske-2.<sup>61</sup> Finds of this type also in Akkerman (Figure 7.10) strongly suggest that the northern Black Sea region also participated in the development of this ware. Though sgraffito could be found as a quotidian ceramic in the Balkan–Mediterranean–Black Sea area, it primarily served as a prestige pottery until the appearance of Iznik quartz-frit pottery at the end of the fifteenth century.<sup>62</sup> Interesting are examples of local production found in the Crimea and other northern Black Sea areas, including Akkerman, from the end of the thirteenth and the fourteenth century—furnaces with fragments of sgraffito and unfinished examples were found in the Golden Horde layer at Akkerman from the beginning of the fourteenth century.<sup>63</sup> Our investigation of the port yard revealed unfinished sgraffito ware produced near the estuary, which may date from the Golden

<sup>61</sup> A. V. Burakov, 'Polyv''ianyi posud z horodyshcha Dniprovs'ke-2', *Arkheolohiia*, 4 (1991), 105–9, esp. 109.

<sup>62</sup> V. Volkova-Nesheva, 'Sgraffito keramika v bolgarskom iskusstve XIII–XIV vv.', *Polivanaia keramika Sredizemomor'ia i Prichornomor'ia X–XVIII vv.* (Kiev: Natsional'na akademiia nauk Ukrainy, Instytut arkheolohii, Kryms'kyi viddil, 2005), 55–61.

<sup>63</sup> Kravchenko, *Srednevekovi Belgorod*, 44.

Horde or from the pre-Ottoman or early Ottoman period. Besides the sgraffito style, another type of glazed ceramic, known as Miletus ware, was imported from Anatolia. Though most groups of this ware appeared in the Mediterranean in the thirteenth and fourteenth centuries, imitations were also produced in the northern Black Sea region. Here we might note that other, earlier, Golden Horde and Moldavian period finds—considerable amounts of metal (e.g. belt plates and buckles), glass and other objects, with decorative elements such as ‘three lives’, ‘tree of life’, and other typical Turkic motifs—also show a large influence from Anatolia, as well from Central Asia.<sup>64</sup> The pre-Ottoman Anatolian and Mediterranean ceramic wares found at Akkerman and in the northern Black Sea in general reveal long-term contacts between these regions. That is to say, during the Golden Horde period there was strong cultural influence not only from the east, but also from the Anatolian and Mediterranean south. The coming of the Ottomans to the northern Black Sea did not bring an alien material culture—earlier penetration served to pave the way for their cultural presence on the coast and even further north in ethnic Ukrainian territories.

When Iznik pottery became a prestige ware in Anatolia and other regions from the end of the fifteenth to the beginning of the seventeenth century, so too did it occupy a place of prestige on the northern frontier. Kütahya ware, produced from the end of the seventeenth century until the end of the eighteenth century, also acquired a significant presence in the north. Excavations at Özi and especially at Akkerman suggest that there must have been significant importation of these wares.<sup>65</sup> All phases of Iznik ware are represented at Akkerman and Özi, and in the former, Iznik ceramics are represented by more numerous finds than in the latter, especially *c.* 1480 to 1530 (Figure 7.11). In her seminal study of medieval and post-medieval ceramics in the Aegean, Joanita Vroom writes that groups such as Iznik ware, polychrome marbled ware and Kütahya ware are rare in late fifteenth- to eighteenth-century sites in Boeotia, where the more prestigious wares from Iznik and Kütahya have a frequency of 0.2–0.3 per cent (Figure 7.12).<sup>66</sup> By contrast in the port yard at Akkerman the percentage of Iznik and Kütahya ceramics is 3.5–4.0 per cent! At the same time that Iznik and Kütahya wares declined as prestigious wares came a challenge by Chinese porcelain in the eighteenth century.

<sup>64</sup> S. A. Beliaieva, Iu. V. Boltryk, E. E. Fialko, ‘Iuvelirnnye izdeliia iz raskopok Portovogo dvora Akkermanskoi kreposti’, *First International Congress of Eurasian Archaeology* (Izmir, 2007), 20–2 (abstract).

<sup>65</sup> While some experts consider Iznik ware as having been a non-prestigious ware as compared with other table ware, we agree with, for example, Lynda Carroll: ‘Iznik was the most important production center of high quality ceramics intended primarily for elite use until the seventeenth century . . . These vessels were produced mainly for an elite market—being either commissioned by the court . . . or other elites.’ Lynda Carroll, ‘Toward an archaeology of non-elite consumption in late Ottoman Anatolia’, in Uzi Baram and Lynda Carroll (eds.), *A Historical Archaeology of the Ottoman Empire: Breaking New Ground* (New York: Kluwer Academic, 2000), 171. Aside from Akkerman being a centre of trade, the fortress’s Ottoman administrative elite would have used this pottery, as would such elite groups in other parts of the empire (and in Europe as well).

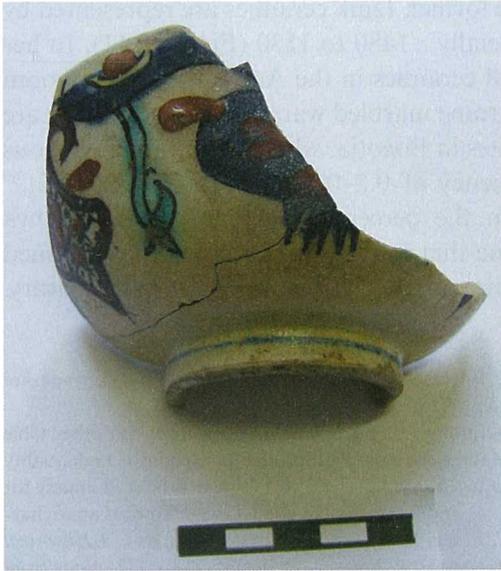
<sup>66</sup> Joanita Vroom, *After Antiquity: Ceramics and Society in the Aegean from the 7th to the 20th Century A.C.* (Leiden: Faculty of Archaeology, University of Leiden, 2003), 193–4.



**Figure 7.10.** Sgraffito shards excavated in the port yard. Photograph by Valentyna Kesar.



**Figure 7.11.** Iznik shards excavated in the port yard. Photograph by Valentyna Kesar.



**Figure 7.12.** Kütahya coffee cup excavated in the port yard. Photograph by Valentyna Kesar.



**Figure 7.13.** China shards excavated in the port yard. Photograph by Valentyna Kesar.

This occurred not only in the metropolises of the Ottoman Empire, but also on the frontier. In such regions, including Akkerman, Özi and other Ottoman northern centres, dishes for tea and coffee with ornamental figures have been found (Figure 7.13). Of fifteen groups of ceramics from the late Byzantine/Frankish period (thirteenth to mid-fifteenth century) established by Vroom for Boeotia, we have found nine, or perhaps ten groups in Akkerman; of sixteen recognised groups of ceramics (including pipes) from the Ottoman–Venetian period (late fifteenth to eighteenth century), we have found fifteen groups in Akkerman.<sup>67</sup>

The port yard at Akkerman, like Özi, has yielded a very large collection of mostly Ottoman (and also some Ukrainian Cossack) tobacco pipes from the end of the seventeenth and the eighteenth century—so far we have more than one thousand pipes in total (Figure 7.14). By comparison, while the pipes from Vroom’s Boeotian sites reach a 2 per cent frequency, at Akkerman we have up to 8 per cent. While we are not yet sure what proportion of the pipes was produced locally, clearly the vast majority were made of Anatolian red clay and imported to Akkerman. The large number found at the Akkerman and Özi fortresses suggests that they were popular with Ottoman garrison troops, or were perhaps brought there for sale or as personal items. By virtue of their popularity in Ottoman territories on the northern Black Sea, they spread throughout Ukraine.<sup>68</sup> During the height of the Cossack era—the sixteenth to eighteenth centuries—pipe smoking, like other facets of Tatar and Ottoman material culture, became widespread among these frontier warriors. Ottoman and Ottoman-style pipe finds on the northern seaboard and throughout Ukraine promise to provide a better qualitative and quantitative notion of the degree of Turkish cultural penetration in our region. The development and spread of tobacco pipe production in Ukraine, with its clear Turkish stylistic influences, is a brilliant example of the integration of Turkish and Ukrainian features in this kind of material culture.

As we can see from Table 7.1 (percentages of finds, which are mostly from the Ottoman period), non-ceramic items such as metal, glass and others (including stone) represent 14.7 per cent of the various artefacts. Metal items, which belong to various periods from the Golden Horde through the Moldavian and Ottoman, include buckles, belt plates, adornments of bronze and silver, and coins. In the course of excavation of the port yard nearly 300 items of silver and bronze were found, and one of gold. Of the coins, 85 per cent are Ottoman. The rest are mainly ancient, Golden Horde, Crimean Tatar, Moldavian, Polish and Russian. This suggests the degree to which Akkerman was connected to the Ottoman economy.

<sup>67</sup> Joanita Vroom, *Byzantine to Modern Pottery in the Aegean* (Utrecht: Bijlvald Press, 2005), 107, 139.

<sup>68</sup> For example, even as late as the nineteenth century, imitation Ottoman pipes, known as ‘red Turkish pipes’, were produced in a craft shop in Kiev, R. Chaika, ‘Keramichni liul’ky iz Zhovkivshchyny’, *Arkeoholichni doslidzhennia L’vivs’koho universytetu im. I. Franka*, 7 (2004), 169–77.



Figure 7.14. Pipes excavated in the port yard. Photograph by Svitlana Bilyayeva.

At Akkerman, as elsewhere, archaeological artefacts provide evidence for *longue durée* processes, including cultural interactions that go against some of the long-held stereotypes of necessary and constant conflict, and suggest a more balanced view of cultural contacts and exchange. On the level of material culture, the Ottoman presence on the frontier at Akkerman and influence beyond it were surely very great. In the case of ceramics (including pipes), it is possible and perhaps likely that Akkerman was part of an extensive web of commercial and cultural exchange. Given that at Akkerman there is such a wealth of ceramic material, both in terms of numbers of periods represented and frequencies of some types (the latter apparently being higher than in some hinterland regions of the empire), the question arises of why this is so. And why are so-called prestige items so common? At this point it is too early to say for certain. Such wealth may parallel the wealth of Akkerman as an entrepôt of trade. The high frequency of prestige items in the barbican may suggest that a considerable portion of them were possessed by members of the garrison, which has implications regarding their daily life. Of course, the high frequency of items may also be an indication of their more common use and lesser prestige. In any event, the implications are very intriguing and call for further investigation at this site as well as at other Black Sea sites.

Another question that arises is, if prestige ceramics in particular were of such apparent commercial importance, should they not have been recorded in the Ottoman customs registers or elsewhere? A large and rare early sixteenth-century customs register that includes Akkerman and Kili has so far yielded no precise references to

ceramics.<sup>69</sup> None are registered in the Kefe register of customs arrears from 1487 to 1490.<sup>70</sup> The large disproportion between the huge presence of ceramics and their rarity in the Ottoman documents could be due to a lack of sufficient representative samples of the latter. Alternatively, the discrepancy between the archaeological and documentary record may be due to the ways in which these items were disseminated and used and to attitudes towards them. For example, the prestige items may have been brought as personal possessions rather than imported as commercial ware (in other words, while they were items of substantial value, technically speaking they were not always commercial ware), while simpler pottery that served as containers for foodstuffs might have escaped or simply not qualified for recording in the customs registers.<sup>71</sup>

### Conclusion

In a frontier region such as the one on the northern Black Sea, where environment, human geography and historical traditions made the steppe an alien place that did not readily yield to control and assimilation, the fortress was indispensable for maintaining the centre's presence. As imperial presence in such an area was anchored at and emanated from the fortress, be it as base for urban life, commercial activity or military prowess, the fortress can be seen as a prime target of a strategy aimed at learning about this frontier of the Ottoman world. Analysis of the development of the Akkerman fortress is helpful for understanding some of the challenges in occupying and protecting the area; the type and extent of construction activity can be a gauge of the real or perceived threats from within the steppe and from beyond it. The Ottoman documents on this fortress inform us better than any previous written sources on its development, including specifics on the types of work done in repairing or reconstructing it. This type of information will have greater meaning and significance once we learn more about analogous activities at other fortresses on the same frontier and at those on other Ottoman frontiers. For the time being, the data on the organisation and infrastructure of work at Akkerman, organisation and infrastructure that connects both the centre and lateral regions with Akkerman, reveals many details about the structure and workings of the Ottoman Black Sea frontier in general, and the Akkerman portion of it in

<sup>69</sup> BOA, MAD 6. However, according to a list of imports and exports at Kili for March–September 1505 compiled by Halil İnalçık on the basis of this *defter*, there is only one entry with nondescript 'drinking cups' and two entries with 'Rus [Ruthenian/Ukrainian or Muscovite/Russian] cups'. Halil İnalçık, *Sources and Studies on the Ottoman Black Sea, I: The Customs Register of Caffa, 1487–1490* (Cambridge, Mass.: Harvard Ukrainian Research Institute, 1996), 135–6.

<sup>70</sup> İnalçık, *Customs Register of Caffa*.

<sup>71</sup> For another example in which the artefact and documentary record so far do not correlate well see J. M. Rogers, 'Archaeology vs. archives: some recent approaches to the Ottoman pottery of Iznik', in Çiğdem Balım-Harding and Colin Imber (eds.), *The Balance of Truth: Essays in Honour of Professor Geoffrey Lewis* (Istanbul: Isis, 2000), 275–92.

particular. Though more of a sampling than survey could be provided here, we now have a view of the command and control activities of officials in the centre and at the frontier, the relation to this fortress of human, material and financial resources of Moldavia in particular, but also of other areas both on this frontier and in the Rumelian hinterland.

So far, at this early stage of the Akkerman Fortress Project, the documents and architectural observation of the standing parts of the fortress have contributed much towards furthering an understanding of its fabric and features, while the archaeology has mostly complemented the historical and architectural analysis. When dealing with a frontier region such as ours, thanks to frequent instability and disruptions, any source, be it written or material, is a welcome prize. Ironically, but probably because of the vagaries of survival and preservation, there is so far little in the Ottoman archives on two outstanding features of the port yard, the *haman* and the barbican—the first of which is completely Ottoman, and the second of which may have originally been Moldavian, but was certainly several times redesigned and rebuilt by the Ottomans. Without the complementary contribution of the archaeology, these two edifices, with both their traditional and original aspects, would hardly figure in our understanding of this frontier fortress. As the project continues, it is hoped that other areas of Akkerman fortress will open themselves up to what is in some sense an even greater prize, that is, a supplementary one: spots where documents and artefacts overlap more fully, thereby allowing not only a more multi-dimensional view of a feature and its development, but also providing a chance to better assess the nature and value of the documents and artefacts working in combination. Finding overlap depends on the vagaries of preservation and permission for access, but not only these. The difficulty of overlap is also a function of the vastness of the historical process—even in a relatively compact and discrete site such as a fortress, human activity is so varied that there may be spheres that no source base covers, or when different source types do, overlap is a less frequent case. Realistically, asymmetry and lack of overlap in the contribution of written and material sources will remain the norm in such projects. While the value of the written sources, particularly the Ottoman documents, for gaining a better view of the development of Akkerman has been relatively easy to demonstrate, historians, who typically see the written sources as primary, can only be humbled by the disproportionate contribution of the artefacts on trade and commerce, not to mention daily life, in this frontier site.

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