The collapse of empire at Gordion in the transition from the Achaemenid to the Hellenistic world

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Abstract

Gordion, ancient capital of Phrygia, was a large and thriving city of secondary importance during the period of the Achaemenid Persian Empire (ca 550–333 BC). Recent work makes possible a reconsideration of the site: evaluating its architecture, finds and use of landscape within and after the socio-economic and administrative context of the Achaemenid imperial system enables the following new overview. During the Achaemenid period, Gordion's populace participated in the broad cultural exchanges enabled by the imperial system and may have emphasised animal husbandry. When Alexander's conquest led to the collapse of the Achaemenid administrative infrastructure, the impact on Gordion's economy and cultural circumstance was profound. Its population plummeted, the architectural and spatial organisation of the site changed dramatically and new directions and means of trade and cultural interaction developed. Gordion's archaeological remains reflect and emphasise the tremendous historical and political changes attending the end of the Empire and the beginning of the Hellenistic period.

Özet

Frigya'nın antik başkenti Gordion, Akhaimenid Pers İmparatorluğu döneminde (MÖ. 550–333) ikincil öneme sahip büyük ve gelişen bir şehirdi. Yapılan son çalışmalar bu bölgenin tekrardan değerlendirilmesine imkan vermiştir. Mimari özelliklerinin incelenmesi, bulgular ve arazinin Akhaimenid İmparatorluk sisteminin sosyo-ekonomik ve idari bağlamı süresince ve öncesinde kullanımının gözlenmesi yeni bir genel bakış açısı sağlamıştır. Akhaimenid döneminde Gordion nüfusu, imparatorluk sisteminin sağladığı imkan ile, geniş kültür alışverişinde bulunmuş ve hayvancılığına önem vermiş olabilir. İskender'in fethi ise Akhaimenid idari altyapısının çökmesine ve Gordion ekonomisi ile kültürel durumu üzerinde derin etkiler bırakmasına sebep olmuştur. Gordion'un nüfusu oldukça düşmüş; bölgenin mimari ve mekansal organizasyonu önemli ölçüde değişmiş ve ticaret ile kültürel etkileşim için yeni yollar ve yöntemler ortaya çıkmıştır. Gordion'un arkeolojik kalıntıları, bir imparatorluğun bitişine ve Helenistik dönemin başlangıcına ait süreçten muazzam tarihi ve politik değişimleri yansıtır ve onlara vurgu yapar.

Gordion was the capital of ancient Phrygia, and what happened there at the end of the Achaemenid Persian Empire after Alexander the Great sliced the Gordian Knot in 333 BC is unusually well documented in the archaeological record. The site of Gordion had had an illustrious historical past, one that was also embellished into a mythic past that could be revisited and reused in succeeding eras. The golden glories of King Midas were legendary, and the vast tumuli on the ridges and roads approaching the site certainly served as reminders of his power and wealth. But by the time the Achaemenid Persian armies arrived in central Anatolia in the mid-sixth century BC, Gordion had already been

subsumed into the expanding Lydian Kingdom and had lost its position as an international 'player' in politicalmilitary terms (fig. 1).

Achaemenid Gordion: an overview

During the Achaemenid Persian period, ca 550–333 BC, Gordion was not a regional or satrapal capital, but it was large and productive, with opportunity to draw on many cultural influences and ideas in the life and behaviours of its inhabitants. It was on a branch of the road network that linked the different areas of the Achaemenid Empire to each other and it participated vigorously in the political economy of the Empire.



Fig. 1. Map of Anatolia showing Phrygia and Gordion (Gordion Archaeological Project; map by Gabriel H. Pizzorno and Gareth Darbyshire).

Because there is minimal textual evidence either at or about Gordion during this period or the following Hellenistic period, we are primarily reliant upon the material record to understand the nature and development of the site and the behaviours and concerns of its inhabitants. The inhabited parts of Gordion in the Achaemenid period included a fortified 'Citadel Mound' as well as two walled residential districts, the 'Lower Town' and 'Outer Town' (fig. 2). The city may have reached its greatest extent during this time, and indeed the three districts together have a combined area of ca 100ha, roughly comparable to contemporary Athens or the regional imperial capital of Sardis in western Anatolia at 120ha each (Rose 2017: 147 for the combined area; for the size during the Achaemenid period, see Voigt, Young 1999). Both the Citadel Mound and Lower Town at Gordion show an increase in domestic architecture during this time. The western part of the Citadel Mound and the Lower Town seem to have been quite densely covered with pit houses during the Achaemenid period; these were generally small structures with cellars often lined with stones (fig. 3; Voigt, Young 1999).

The fortification wall surrounding the Citadel Mound at Gordion during the Achaemenid/Late Phrygian period had been built long before, at the beginning of the Middle Phrygian period. It was part of the major reconstruction



Fig. 2. Plan of Phrygian Gordion (Gordion Archaeological Project; plan by Richard Liebhart and Ben Marsh).

and renovation that happened around 800 BC and continued into the eighth century (fig. 4; for the date, see the contributions in Rose, Darbyshire 2011 and Rose 2012a; for the 'Unfinished Project', see Voigt 2012). The wall seems to have remained standing throughout the era of Achaemenid rule. The enormous gate complex of the Middle Phrygian period was probably still in use when the Spartan king Agesilaos attacked the citadel in 395 BC, as



Fig. 3. Achaemenid-period pit houses at Gordion (Gordion Archaeological Project; plan by Sondra Jarvis).



Fig. 4. Plan of the Gordion Citadel Mound showing the Middle and Early Phrygian periods (Gordion Archaeological Project; from an original plan by Martin Wells).



Fig. 5. Plan of Gordion in the Achaemenid/Late Phrygian period, superimposed on the Middle Phrygian layout (Gordion Archaeological Project; plan by Elspeth Dusinberre).

suggested by the host of arrowheads found by Rodney Young just outside the main citadel gate (Gönen et al. 2018 with references). The gate collapsed at some point later in the fourth century, however, and the collapse of other buildings on the Citadel Mound probably in the early fourth century has led some to suggest an earthquake (deVries 1990: 388–91; Rose in preparation).

The megarons of the Middle Phrygian period on the eastern side of the Citadel Mound at Gordion had apparently housed public and ceremonial functions: Megaron 2, for instance, may possibly have served as a religious or cult centre (Rose in preparation, with references). They were altered in various ways in Achaemenid times, mostly to make them smaller and sometimes to change their orientation (Fields 2011; Rose in preparation). In some places the function of the Middle Phrygian megarons seems to have been adopted by smaller buildings in the Achaemenid period (fig. 5).

The Painted House, constructed ca 500 BC, exemplifies this process (see Rose in preparation, who establishes the date on stratigraphic grounds as well as stylistic; Suzanne Berndt-Ersöz is completing the definitive publication of the Painted House; the folowing description draws on Young 1955; 1956; 1957; Mellink 1980; Fields 2011; Rose, Darbyshire 2016; Rose in preparation; http://sites.museum.upenn.edu/gordion/history/achaemenid -gordion/). The Painted House was highly unusual – it was a very small, partly subterranean building inserted between the back-ends of two pre-existing (Middle Phrygian) megarons, Buildings C and G, both of which fronted onto the Outer Court just within the citadel gate. The entrance of the Painted House was unlike any other on the citadel. Instead of being oriented toward the courtyard, it faced the opposite direction. The main room, measuring 4.5m × 3.75m with a floor ca 1m below ground level, was reached by descending a twisting flight of steps to a vestibule, before turning into the room. The narrow, crooked approach and sunken nature of the room, sandwiched as it was between the megarons, meant that it probably had little or no natural light (figs 5, 6).

The walls of the vestibule were originally decorated with a mosaic of terracotta pegs, nearly 1,000 of which were found on the grey-blue stucco floor. The walls of the main room were covered with painted frescoes that included several figural friezes. The largest of these was about 60cm high and featured a procession of human figures, probably arranged in two groups moving along the walls to the left and right and meeting on the back wall opposite the door. The majority of the figures appear to be women dressed in brightly coloured garments with elaborate jewellery, at least one of whom is holding her hand before her mouth (fig. 7). The building clearly had some specialised function, possibly cultic based on its approach and decorations. Its location, above the Early Phrygian Megaron 2 that may also have had some sort of ritual purpose, might also be telling. The style of its paintings provides a clear visual link to the wall paintings of Achaemenid Lydia (Mellink 1980; for the paintings of Achaemenid Lydia at, for example, Harta, see Özgen, Öztürk 1996: 36-39). The Painted House suggests wideranging contacts and close interaction with western Anatolia. It also demonstrates how much we do not know about life - and cult - at Gordion in the Achaemenid period.

The elaborate Mosaic Building, built over part of the Middle Phrygian Building A atop the fortification wall, also dates to the Achaemenid period and apparently also housed activities previously conducted in a megaron. It probably had some public administrative function (see especially Rose in preparation; and also, for example, Young 1953: 11, 14, fig. 10; Dusinberre 2008; 2013: 60–62, 284; for its date, see Roller 1991: 134 n. 37; Sams 1994: 825; Glendinning 1996: 23–25; for Building A, see Burke 2012 with references). The Mosaic Building had a multi-roomed layout with an axial approach: a paved court of large, worked andesite blocks led to rooms roofed with painted tiles and decorated with colourful pebble mosaics in maeander patterns, first an anteroom and then a possible throne room (fig. 8). One red-painted column base still



Fig. 6. Plan of the Painted House (Gordion Archaeological Project; plan by Gareth Darbyshire and Ardeth Anderson, from an original by Christofis Polycarpou).

stood in its original position when the building was excavated, and there was once probably a matching base on the other side of the entrance. To the rear was another room with a colonnaded entrance fronting onto the Citadel. Brian Rose suggests this rear room with its monumentalised opening onto the Citadel may have been the spot where the Cart that included the Gordian Knot was on display (Rose in preparation).

In a robber's trench running along a wall of the Mosaic Building was found a beautiful agate cylinder seal with imperial Achaemenid iconography and an Aramaic inscription citing someone with a Persian name (fig. 9; Dusinberre 2005: cat. no. 33; 2008; 2018; Gordion fieldbook 30: 133). The elite associations of its material and iconography, combined with its ownership by a personage of Persian name, document the presence here of a distinguished individual with Persianising inclinations and connections (even if not necessarily an ethnic Persian). The retrieval of this artefact from this spot also indicates the whole world of administrative transactions that required ratification by a seal. Thus it is corroborative evidence for some sort of public function for the Mosaic Building, which may have satisfied the administrative needs previously filled by the megarons of the eastern mound. We shall return later to the issue of seals as they indicate shifts between Achaemenid and Hellenistic Gordion.

The Mosaic Building was built next to and on top of part of Building A – and Building A was modified during the Achaemenid period to add columns along its front (Burke 2012; Rose in preparation). What this meant, as Rose has remarked, was that if someone entered through the Gate and turned left along the street toward the south, s/he would



Fig. 7. Fresco details from the Painted House: reconstruction watercolours by Piet de Jong and (bottom right and centre) actual fresco fragments (Gordion Archaeological Project).



Fig. 8. The Mosaic Building (Gordion Archaeological Project; plan by Dorothy H. Cox).



Fig. 9. Seal no. 100 from Gordion (Gordion Archaeological Project; photo by Hüseyin Şen).

have passed three buildings with columns adorning their fronts: the Gate's South Court, Building A and the Mosaic Building (see fig. 5). The path would thus have resembled, to some extent, a colonnaded street. At least one of the rooms in Building A had also had its vestibule adorned with a pebble mosaic, too; so it seems that the building may have been in the process of being overhauled and made more elaborate altogether. As Rose suggests, perhaps this was all part of a remodeling designed to make the approach to the Mosaic Building monumental and impressive.

A change in movement and use of space on the eastern part of the Citadel Mound is indicated by the construction of the so-called Yellow House, possibly in the fifth century, that was situated directly in front of the pylon that previously led to the Inner Court (fig. 10; Edwards 1959: 266; Fields 2011: 74–75). Only one room of the building has been excavated, but the excavators believe that it originally encompassed several rooms. The Yellow House thus blocked access between what had been the Outer Court to the south and the Inner Court to the north and demonstrates a major shift in direction of movement during the Achaemenid period.

A house with columns was built over what used to be the enclosure wall of the Inner Court, apparently in the fifth century. This single-roomed structure is called 'The Room with Columns', and overlay the enclosure wall of the Inner Court (Rose in preparation). Despite the simplified drawing presented in figure 5, it appears to have been a polygonal building rather than a rectangular one, wrapped around the enclosure wall of the Inner Court and utilising it as part of the new building. It may therefore have had an L-shaped plan. Although the enclosure wall of the Outer Court remained intact, that of the Inner Court, at least in this area, must have been dismantled by this point.

The southeastern corner of the building featured two columns in antis; one Achaemenid-style column base was retrieved and suggests a date probably contemporary with the Mosaic Building in the early fifth century (Rose in preparation). The building had a good plaster floor, and a large number of decorated roof tiles were uncovered in and around the building, of the same type as those used for the Painted House and the Mosaic Building. It was thus a building of some significance, although its actual function is unclear. Rose suggests that the entrance to the building must have been situated at the southwest (Rose in preparation). He points out that it would have been approached along the corridor that was flanked at the west by the back,



Fig. 10. The Yellow House (Gordion Archaeological Project; plan by Joseph S. Last).

or northeastern side, of the Terrace Buildings and at the east by the enclosure wall of the Outer Court. By this point in the early fifth century, as Rose has ascertained, most and perhaps all of the corridors between the Terrace Buildings had been blocked at their northeastern ends, so the western side of this new avenue would have appeared a relatively continuous wall.

Additional evidence has emerged for entirely different activities on Gordion's Citadel in the fourth century. Part of the eastern mound seems to have been converted to industrial activity during the course of the Achaemenid period (Fields 2011: 61). This included metalworking and also a new industrial specialisation - working the lowquality alabaster that was readily available in nearby outcrops (for an ironworking foundry, see Young 1955: 3, 10; Sams, Voigt 1990: 79; Voigt, Young 1999: 220, 224; Fields 2011: 24; for the alabaster, see, for example, Marsh 2005: table 13-1; Marsh, Kealhofer 2014: 690, fig. 1). The public and ceremonial functions served by the great megarons of the Early and Middle Phrygian periods in this area were apparently no longer necessary, or at least no longer situated here, by the fourth century BC. Instead, this once imposing area now served in part as the locus of small-scale industry. This is a major shift in function.

Thus the eastern part of Gordion's Citadel Mound was clearly being used in very different ways by the end of the Achaemenid period than it had been at its start. This did not happen in one fell swoop immediately upon the departure of Cyrus' armies. Instead, we see here a gradual evolution of the physical urban landscape of Gordion over the course of the Achaemenid period. Gordion's Achaemenid ceramic assemblage includes a significant increase in imports over that of earlier periods, as well as a change in locally made pots to incorporate more vessels of distinctly Iranian or Greek shape, finished in ways that increase their resemblance to the foreign wares and decrease their similarity to the vessels of Phrygian tradition (Dusinberre 2013: 124–26 with references). Such changes were most obvious in the vessels used for the serving and consumption of wine. But it is the skyrocketing number of imported vessels associated with drinking that is most notable.

The ceramic vessels used at Gordion during the Achaemenid period demonstrate a real contrast to those used at the politically important site of Sardis in western Anatolia, for, unlike Sardis, at Gordion Attic imports were highly popular during the Achaemenid period (fig. 11). Their numbers dwarf those found at Sardis: the amount of fifth- and fourth-century Attic imported pottery at Gordion is ten times as high as that at Sardis (Kathleen Lynch is studying the Greek imports at Gordion and will shortly publish the definitive volume on them; the following information is drawn from deVries 1980; 1997; Lynch, Matter 2014; Lynch 2016; http://sites.museum.upenn.edu/gordion/history/achaemen id-gordion/; I am extremely grateful to Lynch for sharing ideas and images with me in person and via email on these and related matters in 2014, 2015, 2016 and 2017; for the local wares and their interaction with imports, see, for example, deVries 1977; 1980; 1988; 2000; Sams 1979; 1994; Henrickson 1993; 1994; 2005; Dusinberre 2013: 125-26).



Fig. 11. Comparison of Athenian pottery at Sardis and Gordion (Gordion Archaeological Project; graph by Kathleen Lynch).

Although ceramics were also imported to Gordion from Corinth, Sparta and western Anatolia, pottery from Athens dominates imports - and, indeed, this is the furthest inland that we see significant quantities of imported Attic pottery (Lynch 2016). The inhabitants of Gordion in the Achaemenid period imported very fine-quality red-figured pottery, including a white-ground cup attributed to the Penthesileia Painter (P 475; see deVries 1997: 450, fig. 5). Some of the figural wares feature scenes with eastern barbarians, perhaps in an effort to target an export market (see Lynch 2017; O'Donovan in preparation). Thus a group of Attic rhyta by the Sotades Painter and decorated with Amazons, for instance, apparently combines Athenian notions of how easterners ought to look with how they thought easterners liked to drink (including out of what shapes of cup) (fig. 12). And Athenian black-gloss cups with incised and stamped patterns were also popular by the late fifth century.



Fig. 12. Sotades Painter rhyton (Gordion Archaeological Project; photo by Signe Barfoed).

The imported ceramic forms were primarily for drinking, particularly cup shapes and kraters, but other banqueting vessels such as oinochoai and lekythoi are also to be found. It is unclear whether these Greek shapes were used in the same ways at Gordion as they were in the Greek symposium context. It does not appear that the inhabitants of Gordion imported entire banqueting sets, so it is likely that the imports complemented indigenous drinking and dining practices.

A similar taste for imported vessels related to banqueting may be seen in the spectacular glass finds from Gordion (Janet Duncan Jones is publishing this remarkable corpus; I am grateful to her for sharing her detailed, thoughtful, expert manuscript with me and for discussing its implications; see also von Saldern 1959; Duncan Jones 1995; 2005; 2009). This is a category of artefact that is exceptionally well represented at the site. In the Achaemenid period, the rich sample of glass includes many core-formed glass bottles, imported to Gordion from Rhodes in the fifth century and from Macedonia in the fourth. Gordion's inhabitants were enthusiastic users of perfumed oils and preferred elegant imported Greek containers to hold them - whether glass bottles or ceramic lekythoi. Gordion is the furthest east that the Mediterranean Core-Formed Bottle Groups I and II have been found; the pattern of glass imports thus mirrors that of Attic ceramics.

Religion in Achaemenid Gordion offers another glimpse into the life and concerns of its inhabitants under Persian rule, and the patterns of cultural interaction between Phrygia and Greece attested in the ceramic and glass records are also to be seen in the visual expression of cult (for Greek-Phrygian contacts, see Naumann 1983: 137; Roller 1991: 131, n. 15; 1999: 106; Rein 1996; for cult at Gordion, see Roller 1999: 192). The local goddess Matar, or Kybele, remained popular even as manners of expressing her iconography took on a western Anatolian or eastern Greek appearance beginning already in the later sixth century. In this way Gordion fits well into what we now understand to have been a standard Achaemenid Anatolian pattern of significantly increased cultural sharing and interaction (Dusinberre 2013: 207–44).

The second half of the sixth century saw the introduction of a new figural typology – a series of seated sculptures in terracotta and stone showing the goddess sat on a formal throne (Naumann 1983: 19–20; de la Genière 1985: 704; Roller 1999: 105). This portrayal may have emerged from the renditions of mid-sixth-century Ionia and demonstrates an increase in visual communication during the Achaemenid period in Anatolia. One example from Gordion adopts the Greek pose but retains Phrygian costume, and the goddess continues to hold a traditional Phrygian bird of prey in her arms (Naumann 1983: 118– 22, pl. 14, figs 3, 4; Roller 1991: 121–32, pl. 3b). In addition to ritual practices suggested by these small sculptures, it seems that the great outdoor Phrygian sanctuaries continued in use, including those at nearby Dümrek and at Midas City (Dusinberre 2013: 210–12 with references).

Significant administrative activity is well attested at Gordion during the Achaemenid period. There was an enormous increase in the number of seals at Gordion during this time, particularly of ones that reflect Achaemenid ideas and iconography (Dusinberre 2005; 2008; 2010; 2018). Only three seals have been excavated at Gordion that date to the Early Phrygian period and 14 to the Middle Phrygian (Dusinberre 2005). By contrast, fully 29 Achaemenid-period seals have been excavated at Gordion, more than twice as many as from any other period in the site's history. They strongly suggest an upswing in imperial bureaucratic activity and demonstrate that Gordion's inhabitants participated ideologically as well as practically in the administrative activities of the Empire. In this way, Achaemenid imperial structure bound together Gordion and the other centres of Anatolia in terms of political economy and administrative apparatus, and it interwove them with the far greater expanse of the Empire overall (fig. 13).

Unlike the Early and Middle Phrygian periods, when the few seals found at Gordion were crafted from local materials, during the Achaemenid period the seals were made of a wide variety of materials – including lapis lazuli, faience, meerschaum and glass, as well as agate, alabaster and chalcedony (Dusinberre 2019 with references). Although some were made locally and in a local style, many were imported from the furthest reaches of the Achaemenid Empire as well as from elsewhere within The iconography that decorated Anatolia. the Achaemenid-period seals also saw a great change from before, with distinctive imagery that rendered each seal recognisable and traceable to an individual user (fig. 14). The tremendous increase in the number of seals, the fact that many were imported (perhaps even along with their users) and the recognition that an individual seal could be connected to an individual user demonstrate a significant shift in administrative and bureaucratic practice at Gordion during the Achaemenid period. Personal accountability seems to have mattered in the imperial context and it was shared by a lot of people. This links Gordion to other parts of the Empire, in important ways. The seals show that Gordion was participating in the bureaucratic setup and administrative apparatus of the Empire as a whole.

Environmental analysis shows that the land around Gordion was used with an emphasis on herding rather than farming during the time of the Achaemenid Empire, and with a decrease in the amount of land that was irrigated –



Fig. 13. The Achaemenid Empire (map by Karl Mueller).



Fig. 14. Achaemenid-period seals from Gordion. Top row, left to right: SS150, SS112, SS90, SS187; middle row, left to right: SS44, SS246, SS9, SS73, SS75; bottom row, left to right: SS199, SS56, SS100 (Gordion Archaeological Project).

a real change from pre-Achaemenid Middle Phrygian times (Miller 2010: 51-59, 63-71; see also Miller et al. 2009). Indeed the land seems to have been overgrazed during the Achaemenid period, suggesting large numbers of animals roaming the landscape (fig. 15; Miller 2010: fig. 5.21; Marston 2011: 202; see also Marston 2012: 392). This is particularly interesting in light of the archaeozoological evidence: fully 72% of the major animal bones from this period are ovicaprid and there are more than four and a half times as many ovicaprid bones dating to the Achaemenid period than for any other phase of Gordion's history (Zeder, Arter 1994: tables 3, 4, fig. 3; Marston 2011: fig. 4). The major transition from wheat cultivation to barley during this time may also indicate a concern with foddering animals, since it seems at the Persian capital Persepolis, and in Babylon, barley rather than wheat was fed to animals (Marston 2011: 197; for Persepolis, see Hallock 1969; for Babylon, see van der Spek 2014; Paulus 2016). At the same time, the kinds of wood used for fuel during the Achaemenid period suggest significant anthropogenic pressures on the processes of forest succession, preventing the local forest structure from culminating in such 'climax' species as juniper, oak and pine (Marston 2012: 391).

Taken together, the botanical and zoological evidence suggests large-scale herding of sheep and/or goats, perhaps to produce fibre for textiles and/or for meat. There is no direct evidence for overproduction or for exports afar, but this interpretation is one that explains the evidence discovered at Gordion so far and warrants future research. The suggestion may receive some indirect support from the fact that the Apadana reliefs at Persepolis show Anatolians bringing fleecy rams to the king. Of course, these sculptures are symbolically charged imperial declarations and not to be taken literally, but they do demonstrate that Persians at Persepolis associated Anatolia with ovicaprid husbandry (for the reliefs and their interpretation, see, for example, Root 1979; 2007). This is particularly significant given the great upswing in the numbers of seals during the Achaemenid period and their demonstration of imperially connected and individually responsible administrative activities.

It seems very likely that Gordion in the Achaemenid period served as a locus for large-scale husbandry of sheep and goat flocks within the imperial context – a kind of focus on livestock that is clearly attested elsewhere in the Empire by texts preserved on the tablets of the Persepolis Fortification Archive. This archive, excavated at the

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Phase	Bos	Equid	Caprid	Pig	Deer	Canid	Hare	Rodent	Bird	Reptile	Fish	Total
1-2	88	28	685	99	4	10	5	6	45	6	3	979
3	276	91	2,119	320	20	15	17	44	163	6	44	3,115
4	1,191	256	6,680	1,399	39	37	306	28	522	23	106	10,587
5	390	33	1,261	440	4	9	77	3	30	1	17	2,265
6	248	24	1,103	109	23	21	20	4	42	17	11	1,622
7A	287	35	2,027	116	134	28	17	6	24	49	23	2,746
7B	123	26	1,488	87	22	20	13	16	11	63	25	1,894
8	52	13	531	53	10	8	21	4	10	5	10	717
9	184	25	686	83	5	8	2	1	4	5	7	1,010
10	10	1	40	14	0	2	0	0	1	0	0	68

Distribution of Major Contributors by Phase in Percentages Based on Number of Bones

Phase	Caprid	Bos	Pig	Total Number
1-2	79	10	11	871
3	78	10	12	2,715
4	72	13	15	9,270
5	60	19	21	2,091
6	76	17	7	1,460
7A	83	12	5	2,430
7B	88	7	5	1,698
8	84	8	8	636
9	72	19	9	953
10	62	16	22	64



Fig. 15. Palaeobotanical and palaeozoological montage (Gordion Archaeological Project; after Zeder, Arter 1994; Miller 2010).

Persian capital city of Persepolis, records the dispersal of foodstuffs at and around Persepolis between the years 509 and 493 BC. Thus, for instance, as one example of many instances of animal husbandry documented at Persepolis, ducks were fed, farmed and harvested in enormous numbers. One tablet, PF 2034, documents a staggering 1,333 fowls (of which 62 were ducks) dispensed on behalf of the king for consumption (Hallock 1969; for ducks at Persepolis, see PF 280, 697–98, 1722–33, 1945, 2014, 2034; of course, this does not mean the birds were eaten all at once or by a single individual; for dining in Persia, see, for example, Henkelman 2010 with references; Dusinberre 2013: 114–40).

If indeed Gordion was a centre for sheep and goat husbandry operating within and as part of an imperial system, this explains the city's size, wealth and ability to import the quantities of elegant ceramics, glass and other artefacts attested in the material record of the Achaemenid period. The city would have had to be bound into the complex administrative infrastructure of the Achaemenid Empire in order to move the animals (and/or their products) elsewhere and trade them. Such emphasis upon a single product would explain the cultural interactions demonstrated at Gordion not only with Europe but also with far-flung parts of the Empire, including western Anatolia, Syria, Mesopotamia, Iran, Afghanistan and Egypt.

A political economy focused on raising sheep and goats also fits with the sense that Gordion was of second-tier importance during the Achaemenid period, compared to such imperial capitals as Sardis in western Anatolia. But, as we shall see, if this suggestion is true, it was a subsistence strategy that relied upon the Empire for continuance. When the Empire ended, and its imperial infrastructure and political economy collapsed, so too did this way of life. Gordion, which had seen a gradual change even in Achaemenid times, changed dramatically in the Hellenistic period.

Hellenistic Gordion: an overview

When Alexander passed through Gordion in 333 BC he is famously said to have sliced through the Gordian Knot, thus heralding his conquest of Asia by the sword. The legendary destruction of the Knot portended what was to be an actual transformation in life at Gordion, a transformation that is apparent in the archaeological record. The Hellenistic period saw enormous changes even before the arrival of the Celtic Galatians in the 260s, and the rest of this discussion focuses on this early Hellenistic period. The arrival of the Galatians ushered in a further shift in population and lifestyle at Gordion, however, until the site was apparently abandoned after its conquest by Manlius Vulso in 189 BC (for Galatians at Gordion, see, for example, Mitchell 1993; Darbyshire et al. 2000; Dandoy et al. 2002; Voigt 2002; Kealhofer 2005; Selinsky 2005; Marston 2012: 381).

A decline in population and significantly less intensive use of the surrounding landscape mark Hellenistic Gordion (Voigt 2002; Kealhofer 2005; Marston 2012). The monumental buildings of the earlier Citadel now afforded construction materials for very different structures, as the inhabitants took advantage of easily obtainable stone to build new things. As described already, the great gate guarding the entry into the eastern Citadel Mound had probably collapsed even before Alexander arrived. The Lower and Outer Towns were abandoned during the Hellenistic period, while the Lower Town was used as a cemetery (Voigt 2002; the use of the Lower Town as a cemetery may have begun already shortly before Alexander's arrival: Andrea Berlin, personal communication July 2017). It is a very different picture to that presented of the earlier Achaemenid period.

On the Citadel Mound itself, space was organised and used in very different ways even in the early Hellenistic period (fig. 16). All public and/or administrative facilities went out of use, and no replacements were built. Instead, over the entirety of this area and its impressive earlier buildings, the site's remaining residents constructed houses, all reasonably sized and fitted out. These do not follow any particular plan or norm: each of the houses is unique and, although many houses share a certain northwest-southeast orientation, there is nothing like a grid (Wells 2012). Although there is evidence for a few cobbled streets, no evidence suggests they continued far or connected with each other. Martin Wells sums up the architecture of early Hellenistic Gordion succinctly:

From the late fourth century BCE to the third quarter of the third century BCE, Gordion was a village of tight clusters of houses mixed in among scattered, modestsized single household structures. The village does not seem to have been laid out according to a uniform plan. Patterns of stone robbing from the earlier Phrygian buildings suggest that houses were built where access to the materials was the easiest (Wells 2012: 257; see also Stewart 2010: 74 with references; Wells 2012: 257, fig. 146).

Berlin points out, however, that these new houses, modest as they were, were nonetheless a real step up from the pit houses of the preceding generations (personal communication September 2017). They offered more space and light – and by their very positioning, directly above what had been set-aside public space, they bespeak a kind of personal, non-elite autonomy not previously in evidence.

What is particularly intriguing is that a majority of the larger structures on the Citadel Mound share a stone-built corner storage bin, a distinctively Pontic or Black Sea feature (fig. 17; Lawall 2012: 224; Wells 2012: 261). The recognition of a potential connection to Pontic architecture and behaviours at Gordion takes on greater significance when combined with the presence of Pontic amphorae, suggesting north-south trade along the Sangarios river with Pontic areas, if not necessarily the arrival of Pontic peoples at the site. During the early Hellenistic period, the numbers of imported amphorae at Gordion 'were dominated by those from the southeastern Aegean and the Pontic region, with northern Greece represented primarily by stamped amphoras from Thasos' (Lawall 2012: 222) (fig. 18). These Thasian imports, like the Pontic ones, probably arrived at Gordion along the Sangarios; their prevalence at Gordion in the Hellenistic period contrasts strongly with their almost complete contemporary absence from the Aegean (Stewart 2010: 82; see also Lawall 2012: 223).

In addition to the ceramic amphorae, Shannan Stewart has identified a likely Pontic fine ware that is common at Gordion in the early Hellenistic period (personal communication July 2014; see also Stewart 2010: 84-85). Of real interest is that 'considerable quantities of coins and imported pottery' are present at Gordion in the early Hellenistic period – although these are almost completely absent after the arrival of the Galatians - and indeed the percentage of (non-Attic) black-slipped imports increases in the early Hellenistic period (Stewart 2010: 72, 82 n. 335). The type of these imports suggests trade along the route of the Sangarios, rather than along the overland routes that once connected Gordion to the rest of the Achaemenid Empire. The imports to Gordion from Mesopotamia, Iran, Afghanistan or Egypt cease along with the end of the Empire. This is a complete change in terms of both the directions of trade and the types of objects being imported – a perhaps unsurprising result of the collapse of the Achaemenid Royal Road system in this area (Kosmin 2019). And, as it turns out, the developments in local ceramic production, and in the behaviours associated with ceramic vessels, were also very different.

Stewart has demonstrated that within a few decades of the collapse of the Achaemenid Empire, potters at or



Fig. 16. Plan of Gordion in the early Hellenistic period (Gordion Archaeological Project; plan by Martin Wells).



Fig. 17. Corner storage bins in Operation 46 (Gordion Archaeological Project; photo by Brendan Burke).

near Gordion were producing black-slipped wares themselves, imitating the imported Attic wares that had previously infused the Gordion scene, and probably supplanting them overall (Stewart 2010: 83; Andrea Berlin, personal communication February 2017). The most common shapes are fish plates, shallow echinus bowls and everted-rim bowls, of which the latter two shapes mirror traditional Phrygian shapes in form and function (fig. 19; Stewart 2010: 86). Their prevalence suggests not new dining behaviours but rather an ongoing taste for Greek forms, while maintaining traditional dining behaviours that had also survived the cultural shifts of life during the Achaemenid Empire. It is notable that the Greek-style vessels in use were now no longer imported directly from Athens, however, but made locally in imitation of Attic pots. The importance of this observation, and its corollary that older habits remained strong in cookery and at the table, is underscored by the fact that the locally made non-black-slipped vessels remain rooted in Phrygian tradition and make up the majority of ceramics in every phase of the Hellenistic period (Stewart 2010: 86-87 with references).



Fig. 18. Stamped amphora handles. Top: Sinopean amphora stamp of Pasichares and Hekataios (SS225); bottom left: Herakleian amphora stamp with the eponym Kallias (1627); bottom right: Herakleian amphora stamp with the fabricant Archelas and the eponym abbreviation IA (SS110) (Gordion Archaeological Project; photos by Mark Lawall).

It seems that cooking pots were used also as generalutility vessels in the city during this period (fig. 20). Many of the inventoried cooking pots show no evidence of burning but much evidence of use – suggesting they were used to soak and pound barley, fetch and hold water for cooking and cleaning, and various other utilitarian functions (Stewart 2010: 168). Traditional cooking pots were used for food preparation at Gordion throughout the Hellenistic period to the near exclusion of every other type of cooking vessel – casseroles, pans, parchers and braziers. This suggests, as Stewart wryly comments, that the inhabitants of Gordion were not enthusiastic about experimenting with their established Phrygian culinary traditions (Stewart 2010: 169, 200).

The Hellenistic meal at Gordion was a relatively simple affair in most households; dining was without international pretension. Gordion's diners did not have individual place settings, and there seem not to have been large serving vessels (Stewart 2010: 199–200, 229). Instead, a meal apparently consisted of many bowls and dishes containing a variety of foods passed around among the diners (fig. 21). One feature of the Hellenistic assemblage at Gordion really distinguishes it from the Achaemenid period and has to do with the types of seasoning used at the table – and this reflects Greek notions of dining behaviours. Stewart explains:

Salters and gutti supplemented the standard tableware in some houses and represent not only new shapes but also new modes of dining. Salters are too small for an individual serving of food but perfect as a container for herbs and spices made from fenugreek and coriander, the two condiments attested in the archaeobotanical remains. Gutti are specifically designed for pouring controlled amounts of liquid with the least amount of dripping and would have accommodated vinegar, oil, or honey. The appearance of gutti and salters at the 'Early Hellenistic' Gordion table indicates that food was seasoned after it was served. Each diner would have had some degree of control over the flavor of his own food (Stewart 2010: 229–30).

Another new aspect was in the manner of drinking. Only a few households owned ceramic cups in the Hellenistic period, mostly imported vessels (Stewart 2010: 232–34). More common, apparently, were stylish imported vessels in a different medium. High-quality elaborate moulded glass vessels show the lasting cultural influence of Achaemenid control in the Hellenistic period, the continuing influence of Achaemenid style and its imperial associations (again I am grateful to Duncan Jones for sharing her work in progress with me; see also von Saldern 1959; Duncan Jones 1995; 2005; 2009). These were primarily wide, shallow phialae and deep calyx cups, both decorated with various Achaemenidising combinations of rays, petals, almonds or grooves. The majority of the



Fig. 19. Early Hellenistic bowls from Gordion: echinus bowl (left) and everted-rim bowl (right) (Gordion Archaeological Project; drawings by Shannan Stewart).



Fig. 20. Hellenistic cooking pots from Gordion (Gordion Archaeological Project; photo by Shannan Stewart).



Fig. 21. Early Hellenistic pottery assemblage from Gordion (Gordion Archaeological Project; photo by Shannan Stewart).

samples found are of extremely high-quality decolourised glass, probably intended to imitate rock crystal. Also found was a spectacular hemispherical bowl in gold sandwich glass technique with a net pattern decoration that can be dated to the late third century (fig. 22). With such options as these available, the dearth of ceramic drinking vessels in the Hellenistic period makes sense.

Religious behaviour at Gordion in the Hellenistic period is, as is so often the case, tricky to trace, but there is currently no evidence for temples, sanctuaries, festivals or priests at the site. There is, though, some evidence for the use of the Greek language and the worship of certain Greek gods early in the Hellenistic period (Roller 1987: 103-09; Wells 2012: 244, 269). The style and iconography of the terracotta figurines of the Hellenistic period show the extent to which Greek notions and practice had altered the traditional Phrygian representations of Kybele (fig. 23; Romano 1995; Gallart Marqués 2019). Four 'terracotta deposits' have been isolated at Gordion that date to the Hellenistic period, all of which include figurines of Kybele as well as other vessels such as bust-flower thymiateria (Romano 1995: 66-70; see also Wells 2012: 245-51). The scores of ceramic dining vessels accompanying two of the figurine deposits suggest that some of Gordion's inhabitants sponsored dining clubs associated with Kybele, a feature also known from the Greek Meter cult. The prevalence of private or household cult at Gordion in the Hellenistic period thus offsets the seeming absence of public worship at the site.



Fig. 22. Hemispherical bowl from Gordion, in sandwich glass technique (Gordion Archaeological Project; watercolour reconstruction by Piet de Jong).

Alabaster continued to be worked at Gordion during this period and was used at least locally in various ways, including for furniture elements and, also, seals. Twelve excavated seals from Gordion of the Hellenistic period are documented, all from domestic or industrial contexts. They show a dramatic shift from the 29 seals of the Achaemenid period and are thus more informative than their paltry number might imply (Dusinberre 2005: 27; 2019). Six of them are of local alabaster. All are carved with simple linear designs and none shows wear or other evidence of much use (fig. 24). Of the remaining seals, one is of basalt with similar nondescript imagery, four are apparently stamps for bread or pots and the last one is an imported



Fig. 23. Terracotta Kybele figurines from Gordion (Gordion Archaeological Project).



Fig. 24. Hellenistic seals from Gordion. Left to right: SS211, SS127, SS279, SS210, SS119, SS74 (Gordion Archaeological Project; photo by Elspeth Dusinberre).

anomaly. Thus only seven Hellenistic seals might have had functional similarity to the seals of the Achaemenid period, and they demonstrate a very different approach to using seals than had pertained earlier.

Overall, the seals suggest that the administrative apparatus of the Achaemenid period had no parallel in the Hellenistic period; the Hellenistic seals are not readily distinguishable as recognisable representers of individuals and were unlikely to have been used as traceable indicators of specific persons. They probably served simply to show that something had been sealed, rather than being intended to link a particular action to a specific individual. And there are very few of them. They demonstrate a tremendous shift in society, administration, political-military significance and bureaucracy during the Hellenistic period.

The landscape around Gordion was less overgrazed in the Hellenistic period than previously, as figure 15 demonstrates, probably reflecting the smaller human population of Gordion at the time as well as a vastly decreased number of sheep and goats roaming the area – perhaps only a third as many as had grazed the landscape in the Achaemenid period. Thus analysis of zooarchaeological specimens in 1994 drew on 37,543 bones for the Achaemenid period and 13,116 for the Hellenistic; of these, 10,587 were identifiable for the Achaemenid period and 3,115 for the Hellenistic (see fig. 15; Zeder, Arter 1994: tables 1, 3; see also Miller 2010: 61, 62, 71). The palaeobotanical evidence suggests that subsistence farming was the norm during the Hellenistic period, and this may also be supported by the larger percentage of cattle bones dating to this time (Miller 2010), as oxen would have been useful to draw ploughs. A turn to subsistence farming may also be indicated by the discovery of small numbers of Hellenistic grinding stones in practically every trench excavated, demonstrating household-level production of grain and flour (Stewart 2010: 75). The

inhabitants of Hellenistic Gordion exploited a wide variety of agropastoral strategies, and seem to have met their dietary needs with a diverse range of foodstuffs processed on a small scale (Marston 2012: 394).

Conclusions

Thus it seems that Gordion telescoped as a site almost as soon as Alexander left and the imperial infrastructure collapsed. Its population plummeted. The administrative structure of the site altered drastically. Major changes in land use were accompanied by major changes in domestic and public architecture. Large-scale public or administrative buildings fell out of use entirely, as did various industrial areas, to be replaced by simple domestic structures with no evidence for larger scale urban planning. People moved up onto the Citadel Mound and traded along the local river rather than traversing the elaborate Achaemenid-era road system. Certain kinds of Greekinfluenced artefacts, imported or created at Gordion on a notable scale, were apparently not used according to Greek behavioural norms. Even before the arrival of the Galatians in the 260s, the inhabitants of Gordion lived differently in the years after Alexander sliced the Knot than they had in the centuries before. At Gordion, the political-military change that was inaugurated by the momentary presence of Alexander and his legendary actions greatly affected the ways in which people lived.

The archaeological record at Gordion combines with other historical and archaeological evidence to demonstrate the local response to the breakdown of infrastructure after the end of the Achaemenid Empire. The imperial collapse had a major impact on people's lives at this site. Gordion had been located on the northern branch of the Achaemenid Royal Road as it crossed Anatolia (Young 1963; Dusinberre 2013: 47-49 with references); this road went out of use in the Hellenistic period (Kosmin 2019). Although certain Achaemenid political and imperial structures remained in place or formed the basis for Hellenistic practices in various regions of the former Empire, some of them did not (Achaemenid continuities in the Hellenistic period are far too many and complex to enumerate here; see, for example, Briant 1973; 1982; 1985; 1990; 1994a; 1994b; 1996; 2002; 2010; Sherwin-White, Kuhrt 1993; Kosmin 2013; 2014 – all with extensive references). Thus the road and trade networks that had bound together the Achaemenid Empire and formed an essential part of its workings did not all survive the ravages of war and the constantly shifting political landscape that followed Alexander's conquest. With the collapse of the Empire, the administrative apparatus represented by Gordion's Achaemenid-period seals fell apart.

If it is true, as suggested here, that Gordion in the Achaemenid period served as a centre for sheep and goat husbandry, this was apparently possible because of the road and transportation networks, the established political economy of the Achaemenid Empire and its administrative bureaucracy. When these imperial features collapsed, so too did the political economy of Gordion. The end of empire brought about the end of a way of life at Gordion; there was reformation at a significantly reduced size, with trade now moving along the Sangarios river rather than through the Royal Road network, and thus the life people could live at Gordion was transformed.

Acknowledgements

This article is an expanded version of one included in the conference proceedings stemming from a symposium at Harvard University in February 2017 on Sardis in the Hellenistic period (Berlin, Kosmin 2019). I am grateful to Andrea Berlin (Boston University) and Paul Kosmin (Harvard University) for having invited me to participate in that symposium. I wish to thank Gordion Project Director C. Brian Rose (James B. Pritchard Professor of Archaeology at the University of Pennsylvania and Peter C. Ferry Curator-in-Charge of the Mediterranean Section at the Penn Museum of Archaeology and Anthropology) for permission to present this material from Gordion. Thanks go also to Martin Wells and Shannan Stewart for permission to draw on and reproduce images from their excellent PhD dissertations on Hellenistic Gordion. Deep thanks are offered to Rose and to Margaret Cool Root of the University of Michigan for providing comments on a draft of this contribution, and to Berlin for her comments on the version included as part of the conference proceedings. I am grateful to Semih Gönen (Boğaziçi University) for translating the abstract into Turkish. Profound gratitude goes also and particularly to the Turkish Ministry of Culture and Tourism for making work at Gordion possible and for its ongoing support of the project.

Although it is unusual in an 'acknowledgements' section to cite published sources, the very recent nature of many essential publications on Gordion makes it seem appropriate to mention at least a few of them here. For Middle Phrygian Gordion (ca 800-550 BC), see, for example, Anderson 1980; 2012; Voigt, Young 1999; Voigt 2002; 2005; 2007; Burke 2012; Rose 2012b; 2017 - all with extensive bibliography. For the fortifications, see most recently Gönen et al. 2018. For the tumuli, see, for example, Young 1981; Kohler 1995; Simpson 2010; 2012; Liebhart 2012; Liebhart, Stephens 2016; Kohler, Dusinberre forthcoming. For Midas, see, for example, Sams 1995; Sams, Voigt 2011; Ballard 2012; Amrhein et al. 2016. For the local wares of the Middle Phrygian period, see, for example, Henrickson 1994; 2005. Before his death in 2018, G. Kenneth Sams prepared a forthcoming article on the ceramics and culture of the Middle Phrygian deposits

excavated by Rodney Young, while Kim Codella and Mary Voigt are preparing the publication of the Middle Phrygian architecture excavated by Voigt's team; these publications will significantly enhance our understanding of Gordion.

There are many challenges to analysis of Gordion in Achaemenid/Late Phrygian/YHSS 4 (ca 550-330 BC) and Hellenistic/YHSS 3 (ca 330-189 BC) times. The stratigraphic problems are ferocious and complex, the problems posed by archaeological record-keeping in the early years of the site's investigation scarcely less so. We can now finally begin to say something about what Gordion was like during the centuries under Persian rule thanks to the excavations and publications of Voigt and her team, and the sleuthing of Rose, who is pulling together the Middle and Late Phrygian material excavated on the Citadel Mound under Rodney Young, as well as the work conducted on specific media by Gareth Darbyshire, Gül Gürtekin-Demir, Robert Henrickson, Janet Duncan Jones, Kathleen Lynch, Irene Romano and Phoebe Sheftel, and the investigations into the ancient environment undertaken by Ben Marsh, Mindy Zeder, Jerry Dandoy, Canan Çakırlar, Janine van Noorden, Naomi Miller and John Marston. An MA thesis written by Cincinnati graduate student Alison Fields in 2011 on the Late Phrygian material of the eastern Citadel Mound is notable for delving into often difficult excavators' fieldbooks as well as published material.

Thanks now to the work of Shannan Stewart (PhD Cincinnati 2010) and Martin Wells (PhD Minnesota 2012), the Hellenistic houses and ceramic sequence excavated during the Young era have recently been closely investigated and can be discussed in context. I am grateful to Stewart and Wells for permission to use their splendid PhD dissertations. Wells' publication of his work, and a synthetic study of Hellenistic Gordion that is currently underway at the hands of Rose and Berlin, will be essential additions to our understanding not only of Gordion but of central Anatolia in the Hellenistic period, and I am grateful to Rose and Berlin for sharing with me their work in progress. This overview remains deliberately general and summarising in order not to scoop these forthcoming publications.

This article could not have been attempted even a few years earlier; although it is by no means comprehensive, I hope it may offer a spur for ongoing discussion.

Bibliography

- Amrhein, A., Kim, P., Stephens, L. 2016: 'The myth of Midas' golden touch' in C.B. Rose, G. Darbyshire (eds), *The Golden Age of King Midas: Exhibition Catalogue*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 56–59. https://doi.org/10.9783/9780924171840-010
- Anderson, G.E. 1980: The Common Cemetery at Gordion. PhD thesis, Bryn Mawr College
- 2012: 'In the shadow of Tumulus MM: the Common Cemetery and Middle Phrygian houses at Gordion' in C.B.
 Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 171–88
- Ballard, M.W. 2012: 'King Midas' textiles and his golden touch' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 165–70
- Berlin, A., Kosmin, P. (eds) 2019: Spear-Won Land: Sardis from the King's Peace to the Peace of Apamea. Madison, University of Wisconsin Press
- Briant, P. 1973: 'Remarques sur "laoi" et esclaves en Asie Mineure hellénistique' *Actes du Colloque 1971 sur l'esclavage*. Paris, Les Belles Lettres: 93–133
- 1982: Rois, tributs et paysans. Paris, Les Belles Lettres
- 1985: 'Dons de terres et de villes: l'Asie Mineure dans le contexte achéménide' *Revue des Études Anciennes* 87: 53–72. https://doi.org/10.3406/rea.1985.4194
- 1990: 'The Seleucid Kingdom, the Achaemenid Empire and the history of the Near East in the first millennium BC' in P. Bilde, T. Engberg-Pedersen, L. Hannestad, J. Zahle (eds), *Religion and Religious Practice in the Seleucid Kingdom*. Aarhus, Aarhus University Press: 40–65
- 1994a: 'L'histoire achéménide: sources, methodes, raisonnements et modeles' *Topoi* 4: 109–30. https://doi.org/10.3406/topoi.1994.1495
- 1994b: 'Sources gréco-hellenistiques, institutions perses et institutions macédoniens: continuités, changements et bricolages' in H. Sancisi-Weerdenburg, A. Kuhrt, M.C. Root (eds), *Achaemenid History* 8: *Continuity and Change*. Leiden, Nederlands Instituut voor het Nabije Oosten: 283–310
- 1996: Achaemenid History 10: histoire de l'empire perse de Cyrus à Alexandre. Leiden, Nederlands Instituut voor het Nabije Oosten
- 2002: From Cyrus to Alexander: A History of the Persian Empire. Winona Lake, Eisenbrauns
- (tr. A. Kuhrt) 2010: Alexander the Great and His Empire. Princeton, Princeton University Press

Burke, B. 2012: 'The rebuilt citadel at Gordion: Building A and the Mosaic Building Complex' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 202–18

Dandoy, J.R., Selinsky, P., Voigt, M.M. 2002: 'Celtic sacrifice' Archaeology 55.1: 44-49

- Darbyshire, G., Mitchell, S., Vardar, L. 2000: 'The Galatian settlement in Asia Minor' *Anatolian Studies* 50: 75–97. https://doi.org/10.2307/3643015
- de la Genière, J. 1985: 'De la Phrygie à Locres épizéphyrienne: le chemins de Cybèle' Mélanges de l'École française de Rome: Antiquité 97: 693–717
- deVries, K. 1977: 'Attic pottery in the Achaemenid Empire' American Journal of Archaeology 81: 544–48. https://doi.org/10.2307/503284
- 1980: 'Greeks and Phrygians in the Early Iron Age' in K. deVries (ed.), From Athens to Gordion: The Papers of a Memorial Symposium for Rodney S. Young. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 33–49
- 1988: 'Gordion and Phrygia in the sixth century BC' Source: Notes in the History of Art 7.3-4: 51-59
- 1990: 'The Gordion excavation seasons of 1969–1973 and subsequent research' *American Journal of Archaeology* 94: 371–406. https://doi.org/10.2307/505793
- 1997: 'The Attic pottery from Gordion' in J.H. Oakley, W.D. Coulson, O. Palagia (eds), *Athenian Potters and Painters* 1. Oxford, Oxbow Books: 447–55
- 2000: 'The nearly other: the Attic vision of Phrygians and Lydians' in B. Cohen (ed.), Not the Classical Ideal: Athens and the Construction of the Other in Greek Art. Leiden, Brill: 338–63

Duncan Jones, J. 1995: 'Classical and Hellenistic core-formed vessels from Gordion' Journal of Glass Studies 37: 21-33

- 2005: 'Glass vessels from Gordion: trade and influence along the Royal Road' in L. Kealhofer (ed.), *The Archaeology of King Midas and the Phrygians: Recent Work at Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 101–23. https://doi.org/10.9783/9781934536247
- 2009: 'Did the Phrygians make glass? Sources of moulded glass at Iron Age and Hellenistic Gordion' in K. Janssens, P. Degryse, P. Cosyns, J. Caen, L. Van't dack (eds), *Annales of the 17th Congress of the International Association for the History of Glass, 2006, Antwerp.* Antwerp, University of Antwerp Press: 21–26
- Dusinberre, E.R.M. 2005: *Gordion Seals and Sealings: Individuals and Society*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- 2008: 'Circles of light and Achaemenid hegemonic style in Gordion's Seal 100' in N.D. Cahill (ed.), *Love for Lydia:* A Sardis Anniversary Volume Presented to Crawford H. Greenewalt, Jr. Cambridge MA, Harvard University Press: 87–98
- 2010: 'Anatolian crossroads: Achaemenid seals from Sardis and Gordion' in J.E. Curtis, St J. Simpson (eds), *The World of Achaemenid Persia: History, Art and Society in Iran and the Ancient Near East.* London, British Museum Press: 323–36
- 2013: Empire, Authority, and Autonomy in Achaemenid Anatolia. New York/Cambridge, Cambridge University Press. https://doi.org/10.1017/CBO9781139087551
- 2019: 'Administration at Sardis, Gordion, and Daskyleion during the Achaemenid Persian period' in A. Berlin,
 P. Kosmin (eds), *Spear-Won Land: Sardis from the King's Peace to the Peace of Apamea*. Madison, University of Wisconsin Press: 220–32
- Edwards, G.R. 1959: 'Gordion campaign of 1958: preliminary report' *American Journal of Archaeology* 63: 263–68. https://doi.org/10.2307/501847
- Fields, A.L. 2011: The Late Phrygian Citadel of Gordion, Turkey: A Preliminary Study. MA thesis, University of Cincinnati
- Gallart Marqués, F. 2019: 'A clay Cybele in the city centre' in A. Berlin, P. Kosmin (eds), *Spear-Won Land: Sardis from the King's Peace to the Peace of Apamea.* Madison, University of Wisconsin Press: 120–31
- Glendinning, M.R. 1996: 'A mid-sixth century roof tile system at Gordion' *Hesperia* 65.1: 99–119. https://doi.org/10.2307/148462
- Gönen, S., Liebhart, R.F., Miller, N.F., Dusinberre, E.R.M. 2018: 'Archaeology and conservation of the Middle Phrygian gate complex at Gordion, Turkey' *Bulletin of the American Schools of Oriental Research* 379: 55–85. https://doi.org/10.5615/bullamerschoorie.379.0055
- Gordion fieldbook: The excavation fieldbooks are housed in the Gordion Archive at the University of Pennsylvania Museum of Archaeology and Anthropology

Hallock, R.T. 1969: The Persepolis Fortification Tablets. Chicago, Oriental Institute Press

- Henkelman, W.F.M. 2010: "Consumed before the king": the table of Darius, that of Irdabama and Irtaštuna, and that of his satrap, Karkiš' in B. Jacobs, R. Rollinger (eds), *Der Achämenidenhof/The Achaemenid Court*. Wiesbaden, Harrassowitz: 667–775
- Henrickson, R.C. 1993: 'Politics, economics, and ceramic continuity at Gordion in the late second and first millennium BC' in W.D. Kingery (ed.), Social and Cultural Contexts of New Ceramic Technologies. Westerville, American Ceramic Society: 89–176
- 1994: 'Continuity and discontinuity in the ceramic tradition of Gordion during the Iron Age' in A. Çilingiroğlu, D.H. French (eds), *Anatolian Iron Ages* 3: *The Proceedings of the Third Anatolian Iron Ages Colloquium held at Van, 6–12 August 1990*. Ankara, British Institute of Archaeology at Ankara: 95–129
- 2005: 'The local potter's craft at Phrygian Gordion' in L. Kealhofer (ed.), *The Archaeology of Midas and the Phrygians: Recent Work at Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 124–36. https://doi.org/10.9783/9781934536247.124
- Kealhofer, L. 2005: 'Settlement and land use: the Gordion Regional Survey' in L. Kealhofer (ed.), *The Archaeology of Midas and the Phrygians: Recent Work at Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 137–48. https://doi.org/10.9783/9781934536247
- Kohler, E.L. 1995: *The Gordion Excavations, 1950–1973: Final Reports* 2.1. *The Lesser Phrygian Tumuli: The Inhumations.* Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- Kohler, E.L., Dusinberre, E.R.M. forthcoming: *The Gordion Excavations, 1950–1973: Final Reports 2.2. The Lesser Phrygian Tumuli: The Cremations.* Philadelphia, Pennsylvania Museum of Archaeology and Anthropology Press
- Kosmin, P.J. 2013: 'Seleucid ethnography and indigenous kingship: the Babylonian education of Antiochus I' in J. Haubold, G. Lanfranchi, R. Rollinger, J. Steele (eds), *The World of Berossos*. Wiesbaden, Harrassowitz: 193–206
- 2014: *The Land of the Elephant Kings: Space, Territory, and Ideology in the Seleucid Empire.* Cambridge MA, Harvard University Press. https://doi.org/10.4159/harvard.9780674416161
- 2019: 'Remaking a city: Sardis in the long third century' in A. Berlin, P. Kosmin (eds), Spear-Won Land: Sardis from the King's Peace to the Peace of Apamea. Madison, University of Wisconsin Press: 75–90
- Lawall, M.L. 2012: 'Pontic inhabitants at Gordion? Pots, people, and plans of houses at Middle Phrygian through early Hellenistic Gordion' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 219–24
- Liebhart, R.F. 2012: 'Phrygian tomb architecture: some observations on the 50th anniversary of the excavations of Tumulus MM' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 128–48
- Liebhart, R.F., Stephens, L. 2016: 'Tumulus MM: fit for a king' in C.B. Rose, G. Darbyshire (eds), *The Golden Age of King Midas: Exhibition Catalogue*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 28–39. https://doi.org/10.9783/9780924171840-007
- Lynch, K.M. 2016: 'Gordion cups and other Attic black-figure cups at Gordion in Phrygia' in T.H. Carpenter,
 E. Langridge-Noti, M.D. Stansbury-O'Donnell (eds), *The Consumers' Choice: Uses of Greek Figure-Decorated Pottery*. Boston, Archaeological Institute of America: 41–63
- 2017: 'Hellenisme: why Greek myths appealed to the Etruscans'. Paper presented in Vienna
- Lynch, K.M., Matter, S. 2014: 'Trade of Athenian figured pottery and the effects of connectivity' in J.H. Oakley (ed.), *Athenian Potters and Painters* 3. Oxford, Oxbow Books: 107–15
- Marsh, B. 2005: 'Physical geography, land use, and human impact at Gordion' in L. Kealhofer (ed.), *The Archaeology* of *Midas and the Phrygians*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 161–71. https://doi.org/10.9783/9781934536247.161
- Marsh, B., Kealhofer, L. 2014: 'Scales of impact: settlement history and landscape change in the Gordion region, central Anatolia' *The Holocene* 24.6: 689–701. https://doi.org/10.1177/0959683614526937
- Marston, J.M. 2011: 'Archaeological markers of agricultural risk management' *Journal of Anthropological Archaeology* 30: 190–205. https://doi.org/10.1016/j.jaa.2011.01.002
- 2012: 'Agricultural strategies and political economy in ancient Anatolia' *American Journal of Archaeology* 116: 377–403. https://doi.org/10.3764/aja.116.3.0377
- Mellink, M.J. 1980: 'Archaic wall paintings from Gordion' in K. deVries (ed.), *From Athens to Gordion: The Papers of a Memorial Symposium for Rodney S. Young*. Philadephia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 91–98

- Miller, N.F. 2010: *Botanical Aspects of Environment and Economy at Gordion, Turkey*. Philadephia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- Miller, N.F., Zeder, M.A., Arter, S.R. 2009: 'From food and fuel to farms and flocks: the integration of plant and animal remains in the study of the agropastoral economy at Gordion, Turkey' *Current Anthropology* 50: 915–24. https://doi.org/10.1086/606035
- Mitchell, S. 1993: Anatolia: Land, Men, and Gods in Asia Minor 1: The Celts in Anatolia and the Impact of Roman Rule. Oxford, Clarendon Press
- Naumann, F. 1983: Die Ikonographie der Kybele in der phrygischen und der griechischen Kunst. Tübingen, Wasmuth
- O'Donovan, S. in preparation: 'Theseus in Etruria: data mining, archaeological context, and the iconography of Athenian vases'
- Özgen, İ., Öztürk, J. 1996: Heritage Recovered: The Lydian Treasure. Istanbul, Uğur Okman for the Republic of Turkey
- Paulus, S. 2016: 'Stories of barley and gold: overcoming the limits of Babylonian archives'. Paper presented in Toronto to the Canadian Society for Mesopotamian Studies
- Rein, M.J. 1996: 'Phrygian *Matar*: emergence of an iconographic type' in E.N. Lane (ed.), *Cybele, Attis and Related Cults*. Leiden, Brill: 223–37
- Roller, L.E. 1987: 'Hellenistic epigraphic texts from Gordion' *Anatolian Studies* 37: 103–33. https://doi.org/10.2307/3642892
- 1991: 'The Great Mother at Gordion: the Hellenization of an Anatolian cult' *Journal of Hellenic Studies* 111: 128–43. https://doi.org/10.2307/631891
- 1999: In Search of God the Mother: The Cult of Anatolian Cybele. Berkeley, University of California Press
- Romano, I.B. 1995: Gordion Special Studies 2: The Terracotta Figurines and Related Vessels. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- Root, M.C. 1979: *The King and Kingship in Achaemenid Art: Essays on the Creation of an Iconography of Empire.* Leiden, Brill
- 2007: 'Reading Persepolis in Greek: gifts of the Yauna' in C. Tuplin (ed.), *Persian Responses: Political and Cultural Interaction with(in) the Achaemenid Empire*. Swansea, Classical Press of Wales: 177–225. https://doi.org/10.2307/j.ctvvnb3j.14
- Rose, C.B. 2012a: *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- 2012b: 'Introduction: the archaeology of Phrygian Gordion' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 1–20. https://doi.org/10.9783/9781934536599.1
- 2017: 'Fieldwork at Phrygian Gordion, 2013–2015' American Journal of Archaeology 121.1: 135–78. https://doi.org/10.3764/aja.121.1.0135
- in preparation: 'Middle and Late Phrygian Gordion'
- Rose, C.B., Darbyshire, G. (eds) 2011: *The New Chronology of Iron Age Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press. https://doi.org/10.9783/9781934536551
- — 2016: The Golden Age of King Midas: Exhibition Catalogue. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press. https://doi.org/10.9783/9780924171840
- Sams, G.K. 1979: 'Imports at Gordion: Lydian and Persian periods' Expedition 21.4: 6–17
- 1994: The Gordion Excavations, 1950–1973: Final Reports 4. The Early Phrygian Pottery. Philadelphia, University
 of Pennsylvania Museum of Archaeology and Anthropology Press
- 1995: 'Midas of Gordion and the Anatolian Kingdom of Phrygia' in J.M. Sasson (ed.), *Civilizations of the Ancient* Near East 2. New York, Hendrickson: 1147–59
- Sams, G.K., Voigt, M.M. 1990: 'Work at Gordion in 1988' Kazı Sonuçları Toplantısı 11.2: 77-105
- 2011: 'In conclusion' in C.B. Rose, G. Darbyshire (eds), *The New Chronology of Iron Age Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 155–68
- Selinsky, P. 2005: 'A preliminary report on the human skeletal material from Gordion's Lower Town area' in L. Kealhofer (ed.), *The Archaeology of Midas and the Phrygians: Recent Work at Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 117–23. https://doi.org/10.9783/9781934536247.117
- Sherwin-White, S., Kuhrt, A. 1993: From Samarkhand to Sardis: A New Approach to the Seleucid Empire. Berkeley, University of California Press
- Simpson, E. 2010: The Gordion Wooden Objects 1: The Furniture from Tumulus MM. Leiden, Brill

- 2012: 'Royal Phrygian furniture and fine wooden artefacts from Gordion' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 149–64
- Stewart, S.M. 2010: Gordion After the Knot: Hellenistic Pottery and Culture. PhD thesis, University of Cincinnati
- van der Spek, R.J. 2014: 'The volatility of prices of barley and dates in Babylon in the third and second centuries BC' in H.D. Baker, M. Jursa (eds), *Documentary Sources in Ancient Near Eastern and Greco-Roman Economic History*. Oxford, Oxbow Books: 234–59
- Voigt, M.M. 2002: 'Gordion: the rise and fall of an Iron Age capital' in D.C. Hopkins (ed.), *Across the Anatolian Plateau*. Boston, American Schools of Oriental Research: 187–96
- 2005: 'Old problems and new solutions: recent excavations at Gordion' in L. Kealhofer (ed.), *The Archaeology of Midas and the Phrygians: Recent Work at Gordion*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 22–35. https://doi.org/10.9783/9781934536247.22
- 2007: 'The Middle Phrygian occupation at Gordion' in A. Çilingiroğlu, A. Sagona (eds), Anatolian Iron Ages 6: The Proceedings of the Sixth Anatolian Iron Ages Colloquium Held at Eskişehir, 16–20 August 2004. Leuven, Peeters: 311–34
- 2012: 'The Unfinished Project of the Gordion Early Phrygian destruction level' in C.B. Rose (ed.), *The Archaeology of Phrygian Gordion, Royal City of Midas*. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press: 67–100
- Voigt, M.M., Young Jr, T.C. 1999: 'From Phrygian capital to Achaemenid entrepôt: Middle and Late Phrygian Gordion' Iranica Antiqua 34: 191–242. https://doi.org/10.2143/IA.34.0.519112
- von Saldern, A. 1959: 'Glass finds at Gordion' Journal of Glass Studies 1: 23-51

Wells, M.G. 2012: A Cosmopolitan Village: The Hellenistic Settlement at Gordion. PhD thesis, University of Minnesota Young, R.S. 1953: 'Progress at Gordion, 1951–1952' University Museum Bulletin 17.4: 3–40

- 1955: 'Gordion: preliminary report, 1953' American Journal of Archaeology 59: 1-18. https://doi.org/10.2307/500929
- 1956: 'The campaign of 1955 at Gordion' American Journal of Archaeology 60: 249–66. https://doi.org/10.2307/500152
- 1957: 'Gordion 1956: preliminary report' American Journal of Archaeology 61: 319-31. https://doi.org/10.2307/500600
- 1963: 'Gordion on the Royal Road' Proceedings of the American Philosophical Society 107: 348-64
- 1981: Three Great Early Tumuli. Philadelphia, University of Pennsylvania Museum of Archaeology and Anthropology Press
- Zeder, M.A., Arter, S.R. 1994: 'Changing patterns of animal utilization at ancient Gordion' *Paléorient* 20.2: 105–18. https://doi.org/10.3406/paleo.1994.963