This article aims to understand food habits in Roman-period temples in the Middle East by exploring the nexus of taste, architecture and memory. This article shows that there was a range of flavours and tastes associated with religious behaviour and some that were explicitly not associated with religion. Where the data allow, this article demonstrates that some food practices can survive in cultural memory and be brought back after a seeming break of several hundred years: a glimpse of habits that are hard to break. I argue that we need to look beyond the rooms with benches to the whole temple building to understand the interplay between the foods eaten and the setting in which that happened. One of the strongest habits seems to have been the selective and deliberate incorporation of food memories into the fabric of the buildings. While there are clear similarities in behaviour across a wide tranche of time and space, there are also idiosyncrasies that echo the malleability of memory to reflect long-term habits, but also to be open to new introductions.

Keywords: memory; food; Middle East; religion; taste; architecture

Introduction

The opening Arab proverb suggests that old habits are not easily forgotten. This article aims to understand food habits in Roman-period temples in the Middle East by exploring the nexus of taste, architecture and memory. The emphasis here is on pagan temples, rather than on monotheistic religion. The area considered spans the modern-day region encompassed by south-eastern Turkey, Syria, Lebanon, Israel and the Palestinian Occupied Territories, Jordan and Iraq (Figure 1). The scope is necessarily large because, as shown below, the data that currently exist are patchy. This by no means suggests that all of the practices in this region should be considered homogeneous; on the contrary, I argue for variety. In spite of some of the issues in the dataset, I show that by combining artefacts, food remains and architecture in a sensory- and memory-based study, we can move towards a deeper understanding of food and drink practices in Roman-period temples in the region. I will begin with a brief discussion of previous work on dining and religion in the Roman Middle East, before moving onto a discussion of the links between taste and memory. This will be followed by explorations of the tastes and then spaces associated with dining and religion in the region, before ending with a case study from Khirbet et-Tannur that brings these together in concert.

Previous Scholarship on Dining Practices in the Roman Middle East

Previous scholarship has focussed mostly on architectural and literary/epigraphic evidence. Much discussion of the textual evidence has centred around the marzeah: a pan-Semitic term for a group of people who gathered for a ritual meal or banquet, or for the event itself (Gnoli 2016: 31). The main debates are whether the group functioned in the ritual arena of temples alone or in funerary contexts or both and whether this may have shifted both chronologically and geographically (see: Greenfield 1974; Pope 1979/1980; Tarrier 1995: 169–170; Kaizer 2002: 229–231; Dirven 2005: 71–73; Gnoli 2016). This study will not contribute further to this debate.
Very few previous studies take a holistic approach and try to bring textual, architectural and artefactual evidence together. A particularly visible gap here is in the artefactual evidence, especially animal bones and plant remains, due to a distinct lack of published finds reports from Roman-period temple sites in the region. Doliche (Pöllath and Peters 2011) and Khirbet et-Tannur (McKenzie et al. 2013a; 2013b) are, however, two stand-out exceptions in terms of the quality of their excavation and publishing. This hole in the publication record for animal bone and plant remains is, sadly, reflective of a much larger problem in the archaeological reporting of the Roman Middle East (see Lev-Tov 2003: 425–427 for an overview of the problem; Tengberg 2012: 192 on figs; Kansa 2017 on animal bones). In spite of these problems, Lev-Tov (2003) has done an excellent job with the patchy data for Roman Palestine that we can employ as background, albeit to a limited extent, to the temple data presented here. He demonstrates convincingly that foodways continued largely unchanged under Roman occupation with a general preference for sheep/goat remaining. The main change came from the addition of fish to the mainstream diet, which supplemented the existing cuisine.

**Methodology**

The material presented here is gathered from key sites across the region (Figure 1), which have been excavated at different times and to different standards. I demonstrate that by combining artefactual and ecofactual assemblages with architectural analyses, it is possible to fill in some of the gaps and inconsistencies in our current understanding. The data currently available are patchy, which inevitably limits some of the questions we can ask, but we can still pull together what we have to begin to answer others. I believe we are not yet at a stage where we can draw definitive conclusions concerning, for example, whether urban temples differ from rural or whether daily life tasted the same as religious life, but where the data allow we can comment on such questions for individual sites. I present, therefore, case studies of well-studied sites, such as Doliche and Khirbet et-Tannur, which allow us to drill down into the data to bring out more detailed pictures that demonstrate both the potential for some overarching patterns, but also a large degree of variety. Problems in recording and specific methodological concerns relating to particular sites or datasets are discussed where relevant below.

**Tasting Memories**

The study of the Roman world through the lens of collective memory has developed greatly in recent years (see e.g. Van Dyke and Alcock 2003; Eckardt 2004; Borić 2010; Galinsky 2014; Galinsky and Lapatin 2015). This body of work has demonstrated that memory played a strong role in how past peoples understood their past in relation to their present and that these collective memories of the past could be both embraced and rejected. Crucially, collective memory has been shown not to be monolithic and unchanging, but selective and flexible. Less has been done on this topic in the Roman Middle East than in other areas of the empire, so this study aims to demonstrate what the lens of memory might bring to furthering our understanding of food and religion in this region.

In particular, this study will look at the interplay of taste and memory, and so draw also on deepening sensory understandings of the ancient world (see e.g. Day 2013; Hamilakis 2013; Betts 2017; Harvey and Hughes in press 2018). Taste is particularly well-suited to recalling episodic memories that can be
deepened by repetition, such as that found in rituals and religious contexts (on repetition see Sperber 1975: 137). Furthermore, taste is an intersense that needs other senses. In order to taste flavours, ret- ronal olfaction, the sensing of food as it is chewed and swallowed, is needed as well as the taste buds (Bartoshuk and Duffy 2007: 27), so taste is not a single sense, but it can only take place alongside smell and touch. In addition, Spence’s (2017) experiments in ‘gastrophysics’ have shown that our perception and behaviours around food are deeply influenced by the atmosphere in which we eat. Where the data allow in this study, I will bring out the intersensory aspects of taste and architecture and how memory is implicated in this nexus.

Memorable Tastes

In this section I look at the evidence for flavours and taste preferences in religious sites across the Roman Middle East with a focus on grapes versus grain and a case study looking at preferences in meat over time from Doliche, and how this differs from settlement sites in the vicinity. This selection of flavours is not definitive. Indeed, numerous other flavours could be included here, for example salt from the Temple of the Palmyrene Gods, cake and barley from the Temple of the Gaddé and meat, oil, radishes, and sauce from the Mithraeum (all in Dura Europos, see Table s2). Rather this section demonstrates what can be done when the data are available.

Worship at pagan sites is often characterised as involving the consumption of large amounts of wine. This is often backed up by recourse to Strabo’s (Geography 16.4.26) description of the Nabataeans, together with the caveat that this was not universal as demonstrated by the inscription to the Nabataean god Shai’al-Qaum, set up in Palmyra by a Nabataean, that states that god does not drink wine (PAT 0319 (AD132)). Indeed, the epigraphic evidence from Palmyra and Dura Europos does seem to point to wine drinking in temples on these sites. Kaizer (2002: 189) notes that many Palmyrene tesseræ mention the word for wine and that a symposiarch was honoured because ‘he brought matured wine for the priests for a whole year from his house, and the wine [was] brought in skins, there was nothing mixed’ (PAT 2743: AD 243). At the Temple of Adonis in Dura Europos, we know of the dedication of a wine cellar (Dura VII/VIII 1939: 171, no. 875 – AD181/182).

This impression is further compounded by the finds of large stone vessels, initially between 1933–1935 from numerous temple sites in the Palmyrène area, north west of Palmyra (Schlumberger 1951: xi–xii). Schlumberger (1951) described these stone vessels as ‘cratères’, immediately associating them with wine. We now know of 20 such vessels from 10 sites on at least eight temples, with 11 vessels coming from the Sanctuary of Abgal at Khirbet Semrine (Table s1). These vessels all share certain similarities: from the 12 with known dimensions, they vary from c. 0.4 m to 0.59 m in diameter and from 0.44 m to 0.6 m in height (Table s1). Where the context is known, they are found in temples, sometimes in situ in a room with benches, as at the Sanctuary of Abgal and at Khirbet et-Tannur; this was initially used to prove that these rooms were for drinking and dining. The ritual role of the vessels seems confirmed by the dedicatory inscriptions to gods often found on their rims.

The inscriptions also date four of the vessels to AD 29, AD 163, AD 257 and AD 261/262 or AD 266/267 (Table s1). This means that these vessels are being produced for over 200 years, pointing to a high degree of consistency in ritual practice and ritual equipment, and so the high likelihood of these vessels being strong elicitors of memory. In his publication of the Palmyrene stone vessel from a private collection, Chatonnet (1995: 162) notes that the inscription includes a commemorative formula to perpetuate the presence of a person, possibly deceased, in a sanctuary, linking that memory to the rite of the ritual banquet, which suggests that these memories were sometimes made explicit through these vessels.

While I do not deny that it is highly likely that these vessels were containers for liquids, probably wine, there seems to have been too much emphasis placed on these vessels alone with little notice given to other items found alongside. Also noteworthy, therefore, from Schlumberger’s excavations is the number of basalt grain rubbers: six from temple sites (Khirbet Semrine A, El Mkemlé, Ras ech-Chaar A, Hassan Madhour, Khirbet Ouadi Souané A, Khirbet Madaba A) and one from a non-temple site (Marzouga A) (Schlumberger 1951: 113). There are, then, as many temples in this area that have grain rubbers (six) as have stone vessels (five), but these have not received the same attention. With the exception of Madaba A, these grain-rubbing stones come from temple sites that do not have the stone vessels, suggesting there are varied feasting flavaours in the area: with grapes, with grain, with both. In addition, most of the basalt rubbers (five) come from temples without rooms with benches (except Khirbet Semrine A). So, not only were there varied feasting flavours, but also varied spaces in which those flavours were experienced. Further evidence for variety comes from Khirbet Ouadi Souané G, where a small stone basin with pouring spout and three handles (height 0.13
m), a basalt mortar (height 0.43 m; diameter 0.4 m) and a small basalt bowl (diameter 0.17 m) were found (Schlumberger 1951: 74 §25–27).

These finds suggest that we need more caution when making assumptions over flavours associated with temples and of perpetuating early biases. What seems more important here is the communality of these activities—the mixing of wine in large enough vessels to share; the preparation of grain together to share as, maybe, bread or cakes. It is this communality and the repetition of these actions around the flavours of grain and wine that would make them memorable, creating a nexus of flavour, action, architecture, and memory.

We can explore taste preferences for meat at Doliche (Dülük Baba Tepesi) in south-eastern Turkey, where excavations have revealed votive activity spanning the Iron Age (sixth and fifth centuries BC) and Roman periods (late first century to mid-third century AD) (Pöllath and Peters 2011: 48; Blömer 2015a). Overall, 50,000 fragments of animal bone were retrieved with approximately two-thirds dating to the Iron Age and one-third Roman. Using the data provided by Pöllath and Peters (2011), the following discussion will demonstrate that in some eating behaviours memory played a powerful role linking present and past.

The Iron Age assemblage comprised c. 32,000 fragments of animal bone, of which c. 50% was burnt (though it is implied that this high percentage was due to a biased retrieval strategy towards burnt bone). Of this burnt material, 10% was partially burnt, 15% completely burnt and 75% calcined suggesting that it was subject to very high temperatures. Sheep (definitely not goat) made up 97.2% of this burnt assemblage by NISP (Number of Identified Specimens) and 86.3% by weight. The remainder of this burnt assemblage predominantly comprised cattle with only 0.5% being pig and game. There was a similar preference for sheep in the unburnt bone assemblage. In terms of meat yields the bone weights suggest that two-thirds of the meat yield would have been sheep and one-third cattle. These species preferences do not reflect animal assemblages on settlement sites, for example pig and goat were more prevalent at the contemporary settlements at Lidar Höyük (Kussinger 1988) and Sirkeli Höyük (Vogler 1997). The sheep were killed off at a slightly later age than is usually found, with no suckling lamb (younger than three months): 40% were younger than six months and 40% between six and 12 months. The burning on the bones was concentrated on the right-hand side tibia to tarsal joint, i.e. the right hind leg, suggesting this was offered to the god as a burnt offering on the altar. Conversely, the unburnt bone assemblage mostly comprised the right foreleg. The left-hand side did not appear in the unburnt assemblage, so must have been disposed of elsewhere and may not have been eaten at all. In summary, in the Iron Age the god at Doliche consumed the right hind leg, the worshippers the right foreleg, with both preferring sheep and neither consuming the left-hand side.

The Roman period assemblage comprised c. 9,000 fragments. While there were continuities with the Iron Age, there were also significant differences and nuances within the continuities. The species were comparable to the Iron Age assemblage with sheep dominating by count, but with bone weight suggesting that meat yield was shared 50/50 with cattle. The same distaste for pig and game seems to have been in place. The god seems to have kept his clear preference for the right hind leg; this is assumed from an absence of this element in the unburnt material. The worshippers, however, seem now to be consuming both right and left-hand sides of the remaining animal. In terms of differences, this assemblage was predominantly unburnt, which suggests that the burnt offering to the god was deposited in a different location. In addition, younger animals were acceptable with 12% of sheep being one to three months when killed, 33% being three to six months, and 45% six to 12 months.

It seems, then, that while the broad tenor of the likes and dislikes in animal taste remained the same over time at Doliche, there was change over time in terms of age and choice of cut, i.e. that taste at Doliche was not fixed, but able to change within certain parameters. It is the worshippers’ tastes that seem to have been more flexible than those of the god, which seem largely unchanged. Secondly, there is a significant gap of several hundred years in activity. While this might be explained by a shift in location of the cult site, it still suggests that there was a remarkable maintenance of collective memory of how the rituals should be carried out and what tastes were acceptable over a very long period of time. This is not unheard of in this area. Bunnens (2015) and Blömer (2015b) have both studied a similar phenomenon wherein Iron Age iconography seems to reappear in the Roman period after a gap of several hundred years. They suggest that there were surviving pockets of iconography and potentially the rediscovery of old material that promoted a conscious looking back to the earlier period.

**Dining in Space**

The evidence for dining spaces in Roman-period temples is presented in Tables S2 and S3.

There is strong evidence for dining spaces in 27 temples, across five sites/groups (Palmyra, Petra, north of Petra, north west of Palmyra, and Dura Europos); in each case they are identified primarily on
the basis of rooms with benches (Table s2). A further 26 temples, across six sites/groups (Palmyra, north west of Palmyra, Djebel er-Ramm, Sidon, Leja, and Deir el-Qala’a) potentially have evidence for ritual dining and/or a ritual dining space (Table s3). These cases are less clear-cut for numerous reasons (some overlapping):

1. Disagreement over whether the space has benches: Temples of Nabu and Allat, Palmyra; Khirbet es-Sané;
2. Clear dining spaces, but not necessarily in temples: ‘Banquets’ building and room along the Grand Colonnade, Palmyra;
3. Temples with narrow benches: Khirbet Farouâne A, Khirbet Chteib, Khirbet Ouadi Soâné A, Khirbet Madaba A, Khirbet Ramadane A, Khirbet Abou Douhour A, Ouechel;
4. Temples that have basalt rubbing stones or other food-related finds, but no clear dining room: El Mkemlé, Ras ech Chaar A, Khirbet Farouâne B, Hassan Madhour B, Khirbet Ouadi Soâné D, Khirbet Ouadi Soâné G, Khirbet Ouadi Soâné H, Khirbet Abou Duhour E;
5. Temples that have stone vessels, but no clear dining room: Khirbet Madaba A, Sanctuaries at Deir el-Qala’a;
6. Temples that might have rooms for portable dining furniture: Temple de Ramm, Sanctuary of Eshmoun, Sahr.

Categories 4 and 5 suggest that there may have been alternatives ways of dining or feasting that did not need specific dining spaces and, therefore, that to understand eating and drinking practices in temples, we need to look at the whole space and its finds, not only at the rooms with benches, as has already been suggested by the case of the basalt rubbing stones. One possibility, hard to prove conclusively, is that portable furniture or floor cushions might have been used as in category 6. This possibility is supported by some of the lower benches that are known from Dura Europos (Zeus Theos and Temple of the Gaddé). Benches in the more-confidently identified dining rooms are usually one to two metres wide (see Table s2), hence the doubt expressed over narrow benches (category 3). In the case of the wider benches, these seem to lend themselves to reclining. The narrower benches may have two possible functions that are hard to distinguish: as a bench for sitting upright or as a shelf.

This idea of flexible spaces has some sympathy with Buchmann’s (2016) argument for rooms with benches in temples at Dura Europos having more than one function because of the variability in their design. His position seems to come, though, from an expectation for similarity; it seems far more likely, however, that different groups of people worshipping different gods might all engage in eating and/or drinking, but that the specifics of those engagements might be different (on the variety of religious experience in the region, see: Kaizer 2006; Kaizer 2008; Alpass 2013: 1–9). Furthermore, as categories 4 and 5 suggest, we need to look beyond the rooms with benches to see how eating and drinking were part of a temple and its rituals as a whole. There is not space here to provide a full account of all known eating and drinking practices in temples across the region, so I focus here on those that appear linked with memory at Dura Europos (for additional information, see Tables s2 and s3; also see Kaizer 2002: 168–197, 221–229 on Palmyra).

One prevalent habit at temples of various kinds in Dura Europos seems to be to incorporate food memories into the fabric of the building. In the Temple of Atargatis a storage jar containing bone and ash was found under the floor of the pronaos (Dura III 1932: 9–11, 72–76). Similarly, a large jar was found beneath the flagging of naos C¹ in the Temple of Artemis (Dura VI 1936: 399). The jar itself was filled with smaller jars and bowls that were filled with small animal and bird bones, charcoal, beads and ‘tiny bronze ornaments’. The jar was set into a succession of rammed earth floors and capped by the final paving of large gypsum flags in c. 40–32 BC. It is not clear if the jar had been used throughout the life of the temple while the previous floors were being laid or whether it was a deposit to mark the change from one phase to the next; in either case, its sealing beneath the floor and its Russian doll-esque contents mark it out as a carefully-selected deposit of memory. In the Mithraeum ‘great quantities of small bird, sheep and fish bones’ were found under additions around the altar that were made in AD 210–240 (Dura VII/VIII 1939: 75). Again, this seems like a deposit to mark the transition between phases. Other possible instances of this incorporation of food vessels into the building are found in the Temple of the Gaddé (Dura VII/VIII 1939: 218–283), the Temple of Adonis (Dura VII/VII 1939: 135–175) and the Temple of Zeus Theos (Dura VII/VIII 1939: 180–217). As we will see, this type of memorialising action is also found at Khirbet et-Tannur and seems to be a way of imbuing food memories into the fabric of sanctuaries.
The Nexus of Taste, Architecture and Memory: Khirbet et-Tannur

Khirbet et-Tannur is located at the top of the Jabal et-Tannur in Jordan, 70 km north of Petra. It was originally excavated by Nelson Glueck in 1937, who discussed his initial ideas in various publications (see, for example, Glueck 1966; 1970), but never wrote a final report. The archive was curated in the Harvard University Semitic Museum unpublished until Judith McKenzie and her team compiled a final report (McKenzie et al. 2013a; 2013b). Unlike many excavations in the 1930s, Glueck did pay attention to material beyond architecture and sculpture, collecting pottery (both coarse and fine wares), glass, animal bone and, even, charred plant remains. His collection method, however, is not clear, nor are we sure how much of the original collection is now in the archive. The gap in time between excavation and final publication, and change in personnel, also gave rise to other inevitable issues over interpretation, especially of stratigraphy. McKenzie and her team have done a remarkable job in finding a path through these problems. The main issue came in trying to work out how Glueck’s units related to the physical site as locating these units three-dimensionally was nearly impossible (McKenzie et al. 2013a: 22), so McKenzie allocated locus numbers to groups of unit numbers that were in similar two-dimensional locations. Occasionally, this strategy resulted in too much ‘collapsing’ of units into loci masking potential stratigraphic differences.

The site comprised only a sanctuary; in contrast to its neighbour, Khirbet edh-Dharith, that consisted of a sanctuary and a settlement (Villeneuve and Al-Muheisen 2003; 2008). Activity at Khirbet et-Tannur spans the second century BC to the mid-fourth century AD. The following site description is based on McKenzie et al. (2013a: 39–173). The first phase (second and first centuries BC to first century AD) contains the inner temenos enclosure and the first altar platform. Following a major fire, the sanctuary was largely rebuilt. In phases 2 and 3 (second and third centuries AD respectively), the main floruit of the sanctuary, it took the form that remains today of a forecourt leading to an inner temple enclosure, housing an altar platform (renovated in both phases 2 and 3), and surrounded by a series of rooms of varying sizes (Figure 2). Rooms 8, 9 and 10 seem to be dedicated dining spaces as they were furnished with benches on three sides; a large stone vessel was built into the west bench in room 8. Rooms 11, 12, 13 and 14 have less clear function. In addition, three offertory boxes (c. 0.31 m–0.4 m long × c. 0.22 m–0.3 m wide × c. 0.33 m deep) were cut into the paving inside the inner temenos enclosure, two in front of the altar platform at the north-east and south-east corners and one behind the altar to the west. In Phases 4 and 5 (later third into mid-fourth century AD) the sanctuary had passed its heyday, but continued in amended form with changes to rooms referred to as ‘squatter occupation’. The sanctuary went out of use in the mid-fourth century AD following a major fire. In the analysis that follows I will use the finds in combination with the architecture to draw out a story of long-term food practices and memories at the site.

The distribution of the finds assemblages does not necessarily reflect fully what was found on the site (Figure 2). We know, for example, that Glueck (diary entry on 13th April cited in Wetterstrom 2013: 118) refers to lots of grain in room 14, but no samples were found in the museum assemblage. In spite of this, or indeed because of it, a spatial analysis is necessary to demonstrate some of the limits of the datasets. Pottery finds are well distributed across all areas. Glass also has a good distribution, but is sparser. In contrast, animal bone and charred plant remains only exist from inside the inner temenos enclosure, with some animal bone also from room 14. Only the area inside the inner temenos enclosure has representation from all categories; from there only locus 6 has all four categories. This, however, is where the unit numbers are revealing, as it is unlikely that all four were found in the same context: the animal bone and some charred plant remains were from 4A-01 (in front of the altar platform), the pottery from 4A-25 (also described as in front of the altar platform) and glass and some other charred plant remains from 4A-18 (south-east end of the altar platform, grains of wheat behind the cult statue) (unit descriptions from McKenzie et al. 2013b: Table 6.1.). Not only are these different spatially, but it is highly likely that the units relate to different phases: 4A-01 and 4A-25 seem to be soundings beneath the Phase 2 floor of the inner temenos enclosure exposing material from the later part of Phase 1, whereas 4A-25 must belong to Phase 2 or later. Similarly, in locus 7 we know that there are at least two contexts (4A-20 and 4A-24) from inside the altar platform with 4A-24 being at the bottom of the altar and so was earlier than 4A-20 and, indeed, probably the earliest context on the site. Furthermore, this means that 4A-24 was probably a foundation deposit and so different in nature to 4A-20, which was a chamber inside the altar. While these spatial disparities have an inevitable effect on how holistic any interpretation can be, much can still be gleaned from the site.

The animal bone assemblage comprised 255 fragments, of which 73% were found in unit 4A-24 inside altar platform 1 (Whitcher Kansa 2013: 74). The assemblage was highly fragmented due to a large number of burnt, ashy bones (80% of the assemblage), so only 57 bones were identifiable to species and element (Whitcher Kansa 2013: 73–74). The lack of burning on bones from loci 3, 4, and 6, which includes two of the
offertory boxes, is notable (Whitcher Kansa 2013: 79). The assemblage was dominated by sheep and goat (84.1%) with goats dominating sheep by a ratio of 2:1 (Whitcher Kansa 2013: 74). This is similar to Khirbet edh-Dharih (unpublished report by Lepetz cited in Whitcher Kansa 2013: 74), but the reverse of ez-Zantur, a non-religious space in Petra, where the ratio was 2:1 in favour of sheep (Studer 2007: 254). This again probably reflects that religion did not taste like daily life, as was the case at Doliche and as I have argued elsewhere (Kamash 2018). Furthermore, this slight difference in taste from daily life was probably one mechanism for making eating at this site memorable. Another difference in taste that would have contributed to this memory is the lack of certain tastes, notably fish and pig. Whitcher Kansa (2013: 75) notes that the lack of fish has also been observed at Khirbet edh-Dharih, again in contrast to ez-Zantur.

The final element of this assemblage that sheds light on food and memory at Khirbet et-Tannur is the cattle and large mammal bones, which were found exclusively in locus 7 (4A-20). As Whitcher Kansa (2013: 75) observes this suggests a ‘special role’ for cattle at the site that can also be connected to the cult statue depiction of a young bull beside the god. The difference in phases allows us to push this further in terms of memory practices with the bull in the Phase 2 statue being an echo of the Phase 1 activity. Furthermore, this suggests a possible slight change in the tastes of the god from Phase 1 to Phase 2, when he was no longer given cattle and large mammals to eat.

Six samples of plant remains were taken in 1937 (Wetterstrom 2013: 117), though it seems there was plenty more on site. As well as the grain from room 14 noted above, Glueck’s diary (8th March) notes that the north-east offertory box was full of grain, but only two grains are in the current collection (Wetterstrom 2013: 118). Three types of cereal were present: barley and two wheats (emmer wheat (Triticum dicoccum Schübl) and free-threshing wheat (Triticum (probably) durum)), though the barley may have been intrusive (Wetterstrom 2013: 118, 121). Their condition suggests they were burnt in open flames on the altar (Wetterstrom 2013: 121). In addition, the samples were very clean with no field weeds, rachis segments, glumes and glume bases (Wetterstrom 2013: 122). Wetterstrom (2013: 123) argues convincingly that this points to thorough cleaning in antiquity to make ‘a food fit for the gods’. In light of this, it is a real shame that none of the plant remains was available from room 14 to see if there were differences for gods and humans. The assemblage did, however, contain some small amorphous chunks of charred vesicular material, possibly from offering cakes or bread made with emmer wheat, which would have produced a dense bread (Wetterstrom 2013: 125). This material all came from the offertory boxes or under the inner temenos floor.

Figure 2: Site plan of Khirbet et-Tannur showing the distributions of pottery, animal bone, glass and plant remains across the site (modified from McKenzie et al. 2013b: Figure. 6.2).7
It seems that, as at the sites in the Palmyrène discussed above, grain-based foods were also a key element of the religious diet at Khirbet et-Tannur. The glassware assemblage comprised 50 glass fragments from 29 vessels, predominantly beakers/beaker-like jars, small bowls and flasks (O’Hea 2013: 145). All the glassware dates to the third century AD with some stretching into the mid-fourth century AD (O’Hea 2013: 145). O’Hea (2013: 147, 152) suggests that the glassware was probably for dining, even though lacking in plates, jugs, and flagons, and that some of the beaker forms may have been for food, rather than drink. The introduction of glassware at the site in Phase 3, which reflects wider trends in glasware use across the region, suggests that in certain circumstances flexibility was possible in food rites, but that there were limits: in this case changing what you ate from was more acceptable than changing what you ate.

The pottery assemblage comprised c. 5600 sherds (Schmid et al. 2013: 207). The composition of the assemblage (coarse wares, as well as fine wares; fragments, including non-diagnostic sherds, as well as complete vessels) indicates probable 100% retrieval (Schmid et al. 2013: 207). Schmid et al. (2013: 212) note that the variety of types at the site was much narrower than at Khirbet edh-Dharir reflecting the single, religious function of Khirbet et-Tannur. They (2013: 211) argue that the painted (fine ware) bowls point to drinking at the site with fewer than might be expected examples of plain ware forms for eating, such as bowls and plates. The presence of cooking pots, jugs and flasks does, however, suggest that drinking was not the only activity (Schmid et al. 2013: 211). These are not, however, quantified in the report.

In order to quantify the different types and forms of pottery and explore any potential spatial patterning, the catalogue provided by Schmid et al. (2013: 215–233) was entered into an Excel spreadsheet. Details of form were not consistently given in the catalogue, so the categories and terminology used in the spreadsheet reflect those that can be extracted from the catalogue: coarse wares—cooking pots, closed form, open form, storage vessels; fine wares—open form; closed form; amphorae; green wares—closed form; semi-fine wares—open form; closed form; red wares—open form. This means that some useful detail may be hidden in larger categories; for example, it is not possible to quantify how many of the fine ware open forms were plates and which were bowls.

A total number of 5,552 sherds/joining sherds from the same unit were entered into the spreadsheet. The total number from identifiable units is 998 (18%). The remaining 4,554 (82%) come from units grouped by Schmid et al. (2013: 224, 228, 229) as ‘debris’ (labelled as such on bags: 2,582 sherds), ‘provenience unclear’ (bags with incomplete labels: 190 sherds) and ‘provenience unknown’ (unit location cannot be identified: 1,782 sherds). These are referred to in what follows as ‘unstratified’. This is less than ideal, of course, but is a useful background against which to set the stratified material.

The typological analysis shows a strong preponderance towards coarse wares inside the inner temenos enclosure (74%: 72 sherds) and forecourt (83%: 311 sherds), though this is less strong in locus 12 (outside room 9: coarse wares 68%: 61 sherds; fine wares 31%: 28 sherds) (Figure 3). The only context where we see a different, reversed pattern in the forecourt area is in the so-called ‘ditch’: 63% fine wares (93 sherds) to 36% coarse wares (52 sherds). This is similar to loci 18 and 19, outside room 10: 65% fine wares (13 sherds) to 25% coarse wares (five sherds). The rooms surrounding the sanctuary space, including room 10, show a very similar pattern to the forecourt and inner temenos enclosure with a large majority of coarse wares (71%: 254 sherds) (Figure 4). Of these rooms, room 14 has the most variety of types with representation across all types, except red wares; indeed, this is the most mixed assemblage of any space within the sanctuary and is discussed further below. It would have been interesting to know if there were significant differences in pottery assemblages between rooms with benches and rooms without, but room 13 is the only room without benches that also has pottery and the assemblage is too small to make any firm conclusions: 13 sherds, of which 10 were coarse and three fine. One of the most striking elements is the extremely low number of amphorae, just ten sherds across the whole site. This suggests that either wine was not being drunk here (which would run counter to most discussions of Nabataean religion, as discussed above), or that it was not being transported in amphorae, possibly coming in skins as known from Palmyra (PAT 190).

Analysis by form allows us to explore some of these patterns in more detail, focussing on the coarse wares and fine wares (Figure 5). Inside the inner temenos enclosure cooking pots dominate the assemblage (52%: 49 sherds), followed by approximately equal numbers of coarse ware closed forms (21%: 20 sherds) and fine ware open forms (20%: 19 sherds). Interestingly, no cooking pots were deposited inside the altar or in the offertory boxes, suggesting that these were not deemed appropriate offerings to the gods (and that the gods were not interested in food preparation!). This pattern is even stronger in the forecourt where cooking pots make up 78% (285 sherds) of the assemblage against 13% (47 sherds) of fine ware open forms with coarse ware closed forms (5%: 17 sherds) dropping even further. This suggests that more cooking was practised.
in the forecourt than in the inner temenos enclosure, but that some cooking either took place in the inner temenos enclosure or that pottery was being moved around the site. The possibility of cooking in the forecourt, and even in the inner temenos enclosure, supports the earlier argument that we need to look at these spaces as a whole.

In the surrounding rooms, cooking pots are three times more prevalent than fine ware open forms (42%; 143 sherds and 14%; 47 sherds), suggesting a mix of food preparation and eating, or the movement, and subsequent deposition, of food preparation vessels into the eating spaces (Figure 6). When room 14 is looked at in isolation, this bias towards cooking pots rises to 52% (78 sherds), with fine ware open forms dropping to 7% (10 sherds), and brings out a slight difference with rooms 8, 9, and 10 (cooking pots: 33%, 58 sherds versus fine ware open forms: 21%, 37 sherds). This may point to rooms 8, 9 and 10 being more concerned with food and drink consumption, than with room 14. This, together with the broad typological range, reflects Glueck’s suspicion that this room was for storage (McKenzie et al. 2013a: 137), and so either the bench was not a bench, or the function of the room changed over time.

The only stratified contexts where fine ware open forms dominate is again the ‘ditch’ (fine ware open forms: 57%, 83 sherds versus cooking pots: 27%, 39 sherds) and outside room 10 (fine ware open forms: 50%, nine sherds versus cooking pots: 11%, two near complete vessels), though the latter may be skewed by the count method as the cooking pots are both near complete. Sadly, little is known about either of these contexts. This propensity towards cooking pots is somewhat tempered by looking at the unstratified background where fine ware open forms (49%, 2,181 sherds) slightly dominate cooking pots (40%, 1,748 sherds) (Figure 7). This suggests that there were some other contexts, whose location is now unknown, that were like the ‘ditch’. Indeed, A13 (‘provenience unknown’) accounts for 535 of the fine ware open forms (and 340 of the cooking pots), A18 (also ‘provenience unknown’) for 114 of the fine ware open forms (and zero cooking pots) and 4A-26 (‘provenience unclear’: said to be from ‘room 6’) for 71 of the fine ware open forms (and zero cooking pots). The latter is particularly intriguing as it suggests that one of the rooms might have bucked the usual trends for those spaces, but ‘room 6’ has not been located. Although this unstratified material means that we cannot dismiss drinking as a significant activity at the site, it suggests strongly that eating was just as important, and possibly more important, if one considers that a fine ware open form would serve one person and a cooking pot more than more person (contra McKenzie et al. 2013a: 242 where drinking is highlighted as the main activity), and that food was served and eaten from containers and plates of perishable materials. This also adds more weight to the general point made earlier about needing to look beyond wine and drinking to understand these practices in the region.

![Figure 3: Proportions of pottery by type at Khirbet et-Tannur (modified from McKenzie et al. 2013b: Figure. 6.2).](image)
We can also tease out stories about memory from the pottery assemblage, in some instances in combination with the other finds assemblages. In so doing, we find numerous examples of taste memories being incorporated into the fabric of the sanctuary, as was seen at Dura Europos. The significance of retaining material is exposed by the soundings under the floor in the inner temenos enclosure, which demonstrated that the floor was lain over a 4 cm thick deposit that was heavily burnt and rich in pottery, animal bone, and charred plant remains (Table 4). To incorporate this material into the fabric and foundations of the later building, rather than clearing it away, seems like a deliberate choice, similar to building the altar platforms successively around each other in Phases 1 to 3. The memories preserved here are of preparing food (the cooking pots) and of burning it for the gods on the altar (the burnt animal bone, the charred plant remains, including the bread-like vesicular material); even if the worshippers did not taste this food themselves, the smells of this cooking and this burning on the altar would have been intersensorially memorable.

In Phases 2 and 3 the offertory boxes seem to function as similar repositories for the curation of drinking and dining material (Table 5). The insertion of these boxes into the floor where the burnt memories of the sanctuary’s early life lay, may have been a conscious act to bring past and present together. This sense is deepened by the date range of pottery from the north-east offertory box that contained material spanning at least 300 years. This points to retention of material on the site and to the careful choice of material to deposit in the offertory box. The three sherds of a single jug or bottle in the west offertory box also suggest that elements of a (?)deliberately) broken vessel were selected for deposition. In the case of the offertory boxes, there might also have been a slight change from the earlier practices. The charred plant remains suggest that some material is still being chosen from the altar, but the unburnt bone raises the tantalising possibility that the foods and tastes of the worshippers were now being included in the memories.

Overall, at Khirbet et-Tannur we have a vibrant picture of eating and drinking practices across c. 500 years. In spite of the vagaries of the various finds assemblages, it is possible to tease out hints of how the gods and their human worshippers ate and drank and how these actions and their material memories were selected, curated and incorporated into the site. Most striking is the number of echoes of different types and intensities across the five centuries. Some echoes ripple through unchanged, such as not eating fish. Others undergo some transformations: burnt cattle for the gods in Phase 1, disappearing from their menu, but remembered through the cult statue; introducing the tastes of the worshippers into the memories in the offertory boxes in Phases 2 and 3, alongside a continuation of burnt offerings. Together with these echoes and sense of the past, there was also an openness, in certain circumstances, to new habits, for example the introduction of new ways to eat and drink with glass in Phase 3. The continual process of selection of material to retain and to use in the creation of memories seems to mirror the action of memory itself: actively remembering certain things, editing others, forgetting some.
Conclusions

In this article, I have explored the nexus of food, architecture and memory in Roman-period temples in the Middle East. I have demonstrated that there was a range of flavours and tastes associated with religious behaviour. Some were in more evenly-balanced relationships than is usually credited, with wine and grain-based foods both featuring highly. There are, no doubt, many more religious flavours that could be explored, but in order to do this, we need to excavate and publish animal bone assemblages and plant remains more rigorously and more regularly. Where this has been done, such as at Doliche, we are able to produce deeper understandings of the significance of food practices, for both gods and their human worshippers, such that these can survive in cultural memory and be brought back after a seeming break of several hundred years: a glimpse of habits that are hard to break. With taste as an intersense, it is not just the foods themselves that are important, but also the environment in which they are eaten. I have argued here that we need to look beyond the rooms with benches to the whole temple building to understand the interplay between the foods eaten and the setting in which that happened. One of the strongest habits seems to have been the selective and deliberate incorporation of food memories into the fabric of the buildings. The two are intimately related and should not be looked at in isolation as shown here in the temples of Dura Europos and at Khirbet et-Tannur. While there are clear similarities in behaviour across a wide tranche of time and space, there are also idiosyncrasies: spaces that do not always look the same on the same site; some temples focussing on grain, others focussing on wine; slight changes over time, like the introduction of glass vessels or a widening of animal parts that worshippers will eat. This is not only to be expected given the rich variety of religious beliefs and practices across the Roman Middle East, but also echoes the malleability of memory, so that the taste/architecture/memory nexus can be both reflective of long-term habits, expressed as continuity, but also flexible and shifting, leading to new introductions and experimentation.

Figure 5: Proportions of pottery by form at Khirbet et-Tannur. CW = coarse ware; FW = fine ware.

Figure 6: Proportions of pottery by form from all rooms (8, 9, 10, 13, and 14) at Khirbet et-Tannur. CW = coarse ware; FW = fine ware.
The additional files for this article can be found as follows:

- **Table S1.** Known stone vessels (‘craters’) from across the Roman Middle East. DOI: https://doi.org/10.16995/traj.146.s1
- **Table S2.** Temples in the Roman Middle East with definite spaces for dining. DOI: https://doi.org/10.16995/traj.146.s2
- **Table S3.** Temples in the Roman Middle East with possible spaces for dining. DOI: https://doi.org/10.16995/traj.146.s3
- **Table 4:** All finds from underneath the Phase 2 floor of the inner temenos enclosure at Khirbet et-Tannur (data from Schmid et al. 2013; Wetterstrom 2013; Whitcher Kansa 2013). DOI: https://doi.org/10.16995/traj.146.s4
- **Table 5:** All finds from the north-east and west offertory boxes at Khirbet et-Tannur (data from Schmid et al. 2013; Wetterstrom 2013; Whitcher Kansa 2013; no finds recorded from the third offertory box). DOI: https://doi.org/10.16995/traj.146.s5

**Notes**

1. The publication of the Petra Great Temple excavations includes an excellent animal bone report (Kansa 2017), which has not been included here due to the lack of certainty over the function of this complex, despite its name.
2. Strabo comments that the Nabataeans had drinking bouts in which they drank ‘no more than eleven cupfuls’ of wine from gold cups (*Geography* 16.4.26).
3. Five stone drinking vessels very similar to these are also found at Hatra in Iraq: Dirven 2005: 68, fn. 36.
4. Schlumberger (1951: 112, fn. 3) includes another vessel from Qalaat Fakra in his list of comparanda, but this vessel seems to be 1.5 m–2 m in diameter suggesting that it is not part of the same group (Krencker and Zschietzschmann 1938: 41, 45, Figure. 61g).
5. Line 3 of the inscription on the rim reads: DYKR HRMS TLY’, translated by Chatonnet (1995: 155) as ‘que soit commémoré Hermès le Jeune’.
6. Dining spaces that seem to be clearly linked with funerary monuments have not been included in either table.
7. Copyright for the base plan of Khirbet et-Tannur rests with Judith S. Mackenzie and is used here in Figures 2, 3 and 4 in accordance with permissions given in McKenzie et al. 2013a, 319.

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**Competing Interests**

The author has no competing interests to declare.
Abbreviations

PAT  Palmyrene Aramaic Texts – Hillers, D.R. and Cussini, E. 1996. Palmyrene Aramaic Texts. Baltimore and London: The Johns Hopkins University Press.

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