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Research Article

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The Architecture and Village-Spatial Organization of the Middle PPNB Period at Boncuklu Tarla: Some Observations on the Domestic and Public Areas

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Abstract Boncuklu Tarla is a settlement located within the borders of the village of Ilısu in the Dargeçit district of Mardin. The settlement provides important information on the architecture of the PPNA and PPNB periods, in particular the architectural traditions of the Middle PPNB, the focus of this article. In addition, these remain to allow the evaluation of village-space organization. The architectural remains found at Boncuklu Tarla also provide the opportunity to compare the Middle PPNB period architecture unearthed at various settlements such as Çayönü, Nevali Çori, Gritille, Tell Halula, Akarçay Tepe, Gre Fılla and Cafer Höyük in a regional context. This study aims to present and discuss new information on how village spatial organization changed within the PPNB period, following on from previous discussions on the PPNA period data. Especially within the Middle PPNB period, it is thought that the village spatial organization model of being centered around public buildings was abandoned at Boncuklu Tarla. It is believed that with this change the public buildings were separated from the dwellings but still influenced their spatial organization.

Keywords Pre-Pottery Neolithic B · Middle PPNB · Architecture · Boncuklu Tarla · Anatolia · Upper Tigris Basin

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Introduction

Among the architectural remains dating to the Early Neolithic Period (10th-8th millennium BC) in South-eastern Anatolia and Northern Mesopotamia, public buildings have a special place in the architecture of this period with their distinctive plans, architectural features and interior arrangements (Figure 1). Although there are many studies on the subject, unfortunately, a common terminology has not yet been established (Schmidt, 2012; Finlayson, 2014; Hodder, 2016; Özdoğan, 2018; Karul, 2022). In this context, it is seen that the buildings in question are categorized under different definitions such as public building, monumental building, temple, collective building, etc., depending on their plans, interior arrangements and the finds found within the buildings (Banning and Byrd, 1987; Özdoğan & Erim-Özdoğan, 1998; Özdoğan, 1999; Aurenche & Kozlowski, 2010; Kuijt, 2000; Kinzel & Clare, 2020; Finlayson, 2014; Stordeur, 2015; Hodder, 2016; Özdoğan, 2018; Hodder & Pels, 2020; Watkins, 2020; Özdoğan & Karul, 2011; Kodaş & Çiftçi, 2021; Karul, 2022; Hodder, 2022). This complexity of definition is undoubtedly related to the interpretation of the buildings in question. However, in all interpretations, public buildings are seen as a completely different area from other buildings that may be dwellings. In other words, the common point in all studies on the subject is that pubic buildings are not a domestic space. However, there are also some views that suggest that public buildings can be residential (Banning, 2011; 2023). As a general definition, the term 'public building' is used to refer to buildings that are considered to be more collective, not used as dwellings, and they exhibit significant differences in terms of their architectural plans and interior arrangements as well as their finds (Özdoğan, 2005; 2018). These differences may be due to regional as well as chronological variations. At this point, it is possible to analyse the public/special building found in Northern Mesopotamia typologically through at least four different regions. For example, the public buildings unearthed in the Şanlıurfa region have some characteristic features specific to the area. At this point, T-shaped pillar, anthropomorphic pillar, or in some cases human or animal statues or reliefs are characteristic of all the private buildings found in settlements such as Göbekli Tepe, Karahan Tepe, Çakmak Tepe and Sayburç (Clair et al., 2019; Özdoğan & Uludağ 2022 ; Karul, 2022; Şahin & Uludağ, 2023).

Such building elements and finds are regional in general appearance. In addition, banquettes, benches, stone windows or niches are also characteristic for these buildings. In many examples, it is observed that the floors were made by chiselling the bedrock. On the other hand, the special buildings known from settlements in the Upper Tigris Valley such as Çayönü, Çemka Höyük, Boncuklu Tarla, Hallan Çemi, Hasankeyf Höyük, Gusir Höyük and Gre Fılla exhibit some regional characteristics as well as some differences among themselves (Erim-Özdoğan, 2011; Kodaş & Çiftçi, 2021; Rosenberg, 2011; Karul, 2011; Ökse, 2021; Ekinbaş-Can 2022). There are no T-shaped or anthropomorphic pillar in this region, but simple stone pillar and buttresses are characteristic. In addition, stone pillars leaning against the wall were found at Çemka Höyük and Gre Fılla (Kodaş et al. 2020; Çiftçi 2022; Ekinbaş-Can 2022). The radial-plan buildings found at Çemka Höyük and Boncuklu Tarla settlements are more similar to contemporary structures found in north Syria (Kodaş et al., 2020). The examples from Nemrik 9 and Qermez Dere in East Jazira, just south of this region, show some differences within themselves, but point to a more localised tradition (Kozlowski & Kempisty, 1990; Watkins, 2020). The structures uncovered in these settlements are fully buried and mostly built of clay materials in architecture. Although stone pillar and buttresses are absent, compressed clay-soil pillar were occasionally used. The structures unearthed at settlements such as Jerf El Ahmar, Mureybet, Tell Abr 3 in the Northern Syria Region are generally represented by radial-plan examples (Cauvin, 1997; Yartah, 2013; Stordeur, 2015). However, some examples unearthed at Jerf el Ahmar and Tell Abr 3 indicate the presence of buildings with beams and wooden posts (Stordeur, 2015; Yartah, 2013). Buildings with simple stone masonry walls were generally built fully buried. The buttressed building unearthed at the settlement of Dja'de exhibits

similarities with the architecture of the Upper Tigris Valley. In general, despite the regional variations, it can be said that public buildings were constructed throughout the region in Northern Mesopotamia. In addition, it is observed that the buildings in question had round plans in the early phase, but in the later phases of the period they experienced a transition towards a rectangular plan. However, in addition to these chronological and regional variations, another point that stands out is that public buildings had an important place in the settlement order and organisation in the Early Neolithic Period. It can be said that public/special buildings were in a position to direct the village-spatial organisation of the Early Neolithic period. At this point, recent archaeological studies conducted in Southeastern Anatolia provide new and more detailed information on the place of public buildings in village-spatial organisation. These new studies provide a different perspective on many issues such as the spatial relationship between public buildings and other buildings and the position/importance of public buildings in village-spatial organisation. This study aims to develop a new perspective on village spatial organisation in the Middle PPNB Period (Figure 1, represented also to a lesser extent by Çayönü, Özdoğan 2005; Özdoğan 2018) through the Boncuklu Tarla data.

Figure 1

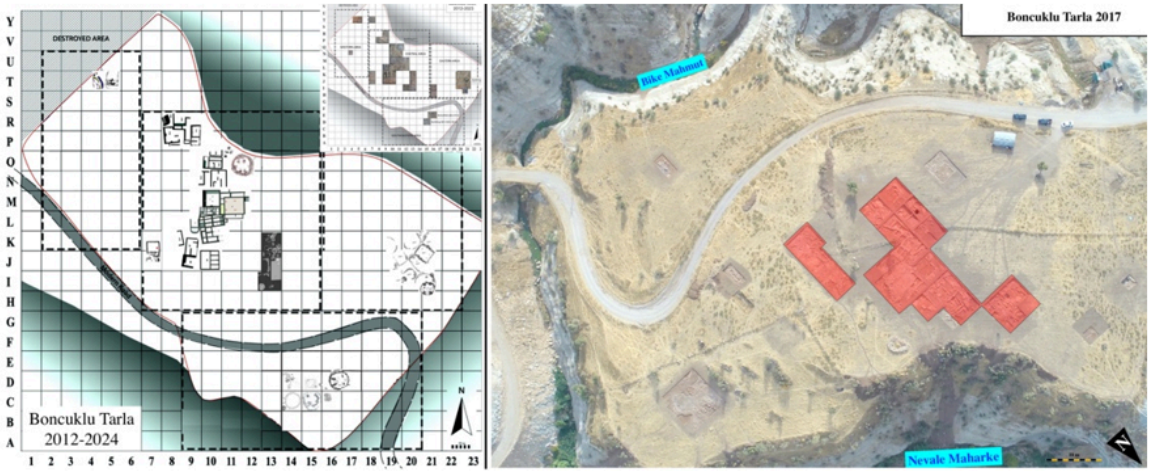
Contemporary settlements in Northern Mesopotamia.

Boncuklu Tarla excavation

Boncuklu Tarla is located approximately 2 km west of the Tigris River, south of the Nevala Maherk stream, and north of the Bike Mahmut stream (Figure 2). The settlement site was first identified and examined in 2008 during surface surveys conducted as part of the documentation and rescue efforts for cultural assets within the interaction area of the Ilısu Dam and HES Project by two different teams. Dr. Tuba Ökse identified Boncuklu Tarla as a settlement representing the Pre-Pottery Neolithic (PPN) Period within the scope of the *Ilısu Dam Construction Area Surface Survey*. Prof. Dr. Harun Taşkıran and Prof. Dr. Metin Kartal collected and evaluated a significant number of obsidian and flint artifacts dating to the PPN during their surface survey conducted as part of the same project (Ökse et al., 2010: 334, 341, Taşkıran & Kartal, 2010: 239–41). Rescue excavations were carried out at Boncuklu Tarla within the scope of the Ilısu Dam and HES Project under the auspices between 2012 (Kodaş, 2018; 2023). Excavation work conducted between 2012 and 2022 took place in 42 separate trenches, covering an area of approximately 4,000 square meters. Layers dating back to the PPNB were identified especially during excavations carried out in 2012, 2017, and 2019–2022 in the central area of the mound and on an approximate area of 2,300 square meters (Figure 2)[1].

Figure 2

Boncuklu Tarla drone photograph and areas where Middle PPNB Period layers were identified.



Middle PPNB Period Architecture: Stratigraphy and Dating

Based on the findings and evidence obtained from intermittent archaeological excavations at the site, it has been determined that the settlement was continuously inhabited from the Late Epipaleolithic to the Late PPNB periods, between 11,000 and 8,000 BC. The identified layers are as follows: Layer 1: Late PPNB; Layer 2: Middle PPNB; Layer 3: Early PPNB; Layer 4a–b: PPNA–PPNB transition; Layers 5a, 5b, and 6a: PPNA; Layers 6b and 7: Late Epipaleolithic/Proto-Neolithic. Additionally, radiocarbon (C14) analyses have provided dates corresponding to this chronological development (8,235 to 7,522 BC, Figure 3, Table 1 - Table 2, Kodaş 2019).

[1]The 2012 rescue excavations were carried out under the scientific supervision of Prof. Dr. Tuba Ökse and Prof. Dr. Harun Taşkıran, while the 2017 excavations were conducted under the scientific supervision of Assoc. Prof. Dr. Ergül Kodaş.

Figure 3
Chronological and typological development of PPN Period architecture at Boncuklu Tarla.

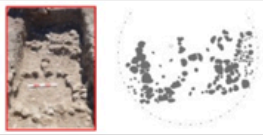
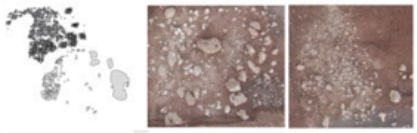
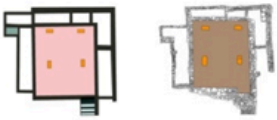
Period	Level	Domestic	Public
	7		?
Late Epipaleolithic	6a	?	
PPNA 1	6b		
PPNA 2	5a 5b		
PPNA-B trans	4a		
Early PPNB	4b		
Early PPNB	3		?
Middle PPNB	2		
Late PPNB	1		

Table 1
Dimensions of Middle PPNB Period dwellings.

Building No	Surface (M²)	Room/Cell number	Surface of the central/principal room (M²)
B 1.1.	195	8	77,90
B 2.1.	64,6	1	*
B 4.1.	90	4	56
B 5.1	80	3	49,60
B 6.1.	29,25	2	*
B 7	61,75	3	*
B 8	39	1	*
B 9	88,35	5	47,5

Table 2
Boncuklu Tarla C14 analysis results and chronological development.

Level	Period	Lab. code	^{14}C age BP ± 1SD	13C (‰) ± 1SD	BC (95.4% confidence)	Context/Level	Material
I	Late PPNB	-	-	-	-	-	-
II	Middle PPNB	Tübitak-0200	8900 ± 27 8508 ± 37	-26.2±0.3 -25.1±0.8	8297-8235 (96.3%) 7592-7522 (95.4%)	Level 2/Middle PPNB	Indeterminate carbon
III	Early PPNB	Tübitak-0199	9207±39	-25.1±0.8	8546-8502 (12.0%) 8496-8302 (83.4%)	Level 3/Early PPNB	Indeterminate carbon
IVa-IVb	PPNA-PPNB Transition	-	-	-	-	-	-
Va-Vb-VIa	PPNA	-	-	-	-	-	-
VIb-VII	Late Epi-Palaeo/Proto Neolithic	Tübitak-0201	10389 ± 41	-26.4±0.6	10471-10109 (95.4%)	Level 6b-7/ late Epipalaeolithic/Proto Neolithic	Indeterminate carbon

From an architectural perspective, it is observed that the majority of the architectural remains uncovered during the investigations at the settlement site belong to the MPPNB period. However, dwellings, storage units, and public buildings dating back to the Proto-Neolithic, PPNA, PPNA–PPNB transition, EPPNB, and LPPNB have also been revealed. Furthermore, it is understood that some structures initially constructed during the MPPNB period continued to be used with certain modifications during the LPPNB period. The architectural remains of the MPPNB period, identified only in the Central Area of the settlement, cover an area of approximately 2,300 square meters. So far, at least 17 structures dating to the MPPNB period have been excavated and can be classified in three distinct architectural types: 1) special/public buildings, 2) domestic/residential buildings, and 3) storage facilities.

Public/Special Building

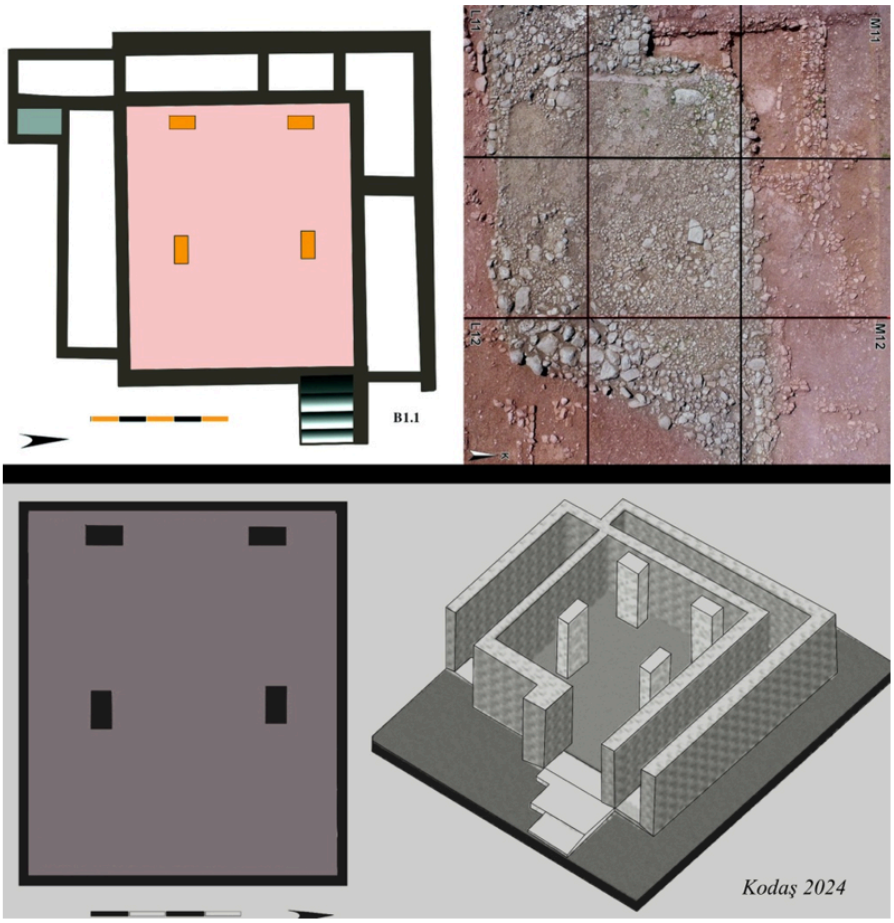
Building 1.1. is the most distinctive community building of the middle MPPNB period, Building 2.1. and Building 8 also have certain features that can be considered non-domestic. Overall, these three buildings are very different from the domestic buildings uncovered on the site.

Building 1.1

Among the architectural structures of the MPPNB period the most prominent building, both in terms of construction style and dimensions, as well as its position within the village space organization, is undoubtedly Building 1.1(Figure 4). Although this building was obviously renovated and used still during the LPPNB period, it was initially constructed during the MPPNB period. The building's dimensions are approximately 15 x 13 meters. The main space of the structure is surrounded by five cells of varying sizes to the west and north of the building. To the south is a rectangular space that extends in the east–west direction (1.60 m x 9.50 m = 15.20 m²). The foundations of Building 1.1 were constructed either with three or four rows of small limestone blocks or with two rows of large limestone blocks. The central space of the structure features a terrazzo floor. For this the space was first filled with rubble stones and then leveled with pebble stones to create a smooth surface (Figure 5c). On top of this surface, a terrazzo floor was laid. The central space measures 8.20 meters in north–south direction and 9.50 meters in east–west direction. Covering an area of 77.90 m², in total (Figure 4).

Figure 4

Drawing and photograph of the Terrazzo Building (Building 1.1)



The floor is covered with a red-colored lime plaster (Figure 5a-b). Symmetrically placed pillars were built on pedestals by stacking flat limestone blocks on top of each other. Two courses of these stone slabs have been found *in situ* at the southwestern corner of the building (Figure 6)[2]. It is observed that access to the building is provided by steps located in the northeastern corner of the building. Four separate units have been identified in total. The room cells along the northern and western sides, and the rectangular space to the south, are not accessed from the main space (Cell 7) but by a separate entrance located to the east.

Figure 5

Details of the floor surface in the Terrazzo Building (Building 1.1).

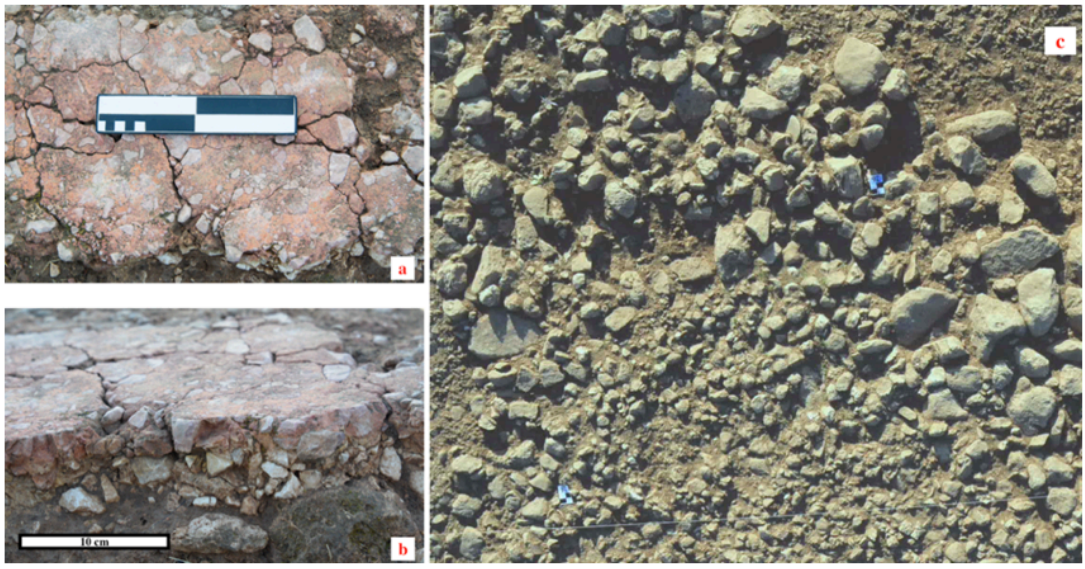
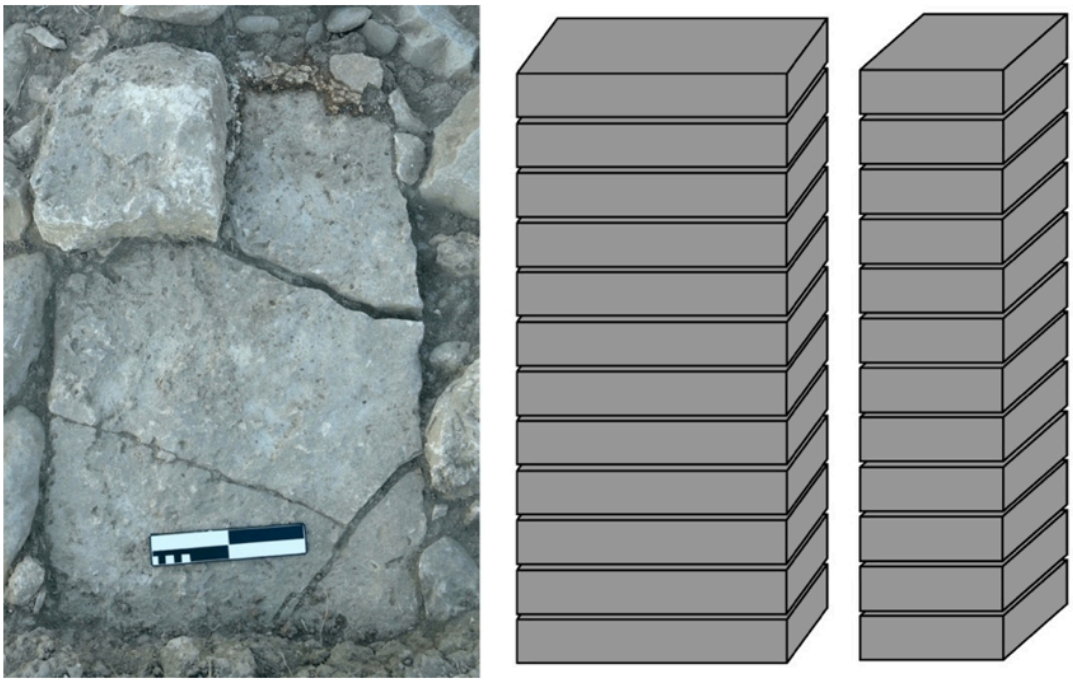


Figure 6

Restitution of the pillars in the Terrazzo Building (Building 1.1).



[2]The others have been damaged owing to agricultural activities. This damage is also evident on the terrazzo floor.

Building 2.1

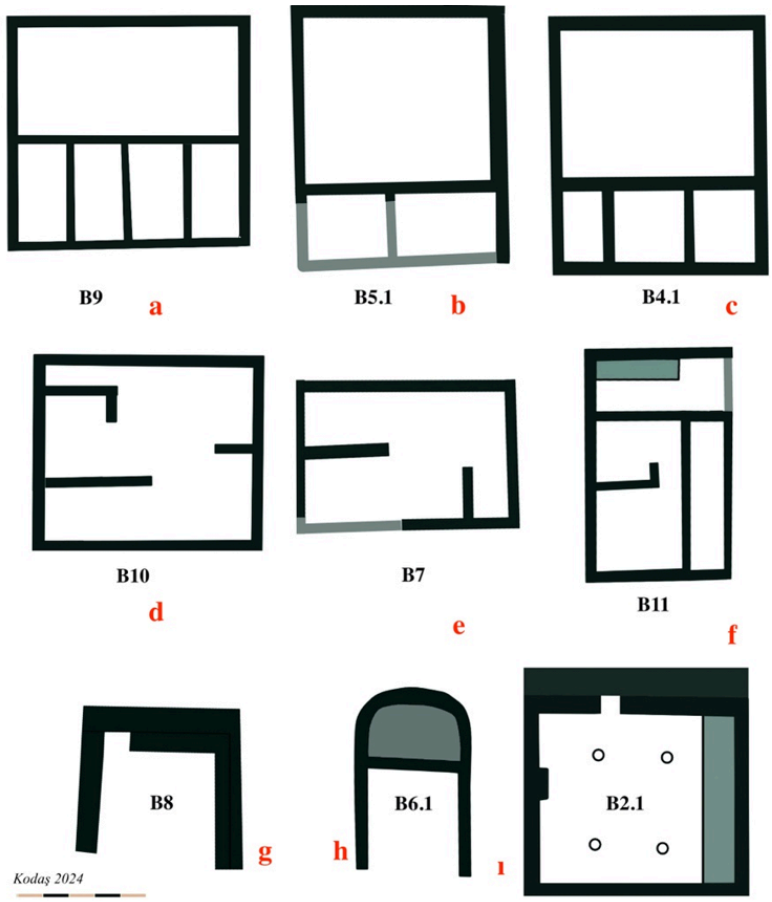
Building 2.1 is constructed adjacent to and immediately northwest of the Building 1.1 (Figure 8ı). Due to its unusual ground plan configuration, we identified this as also a special or public building of the MMPNB settlement. It is a single-room structure measuring 7.60 m in the east–west direction and 8.50 cm in the north–south direction. At the southern wall, a substantial buttress is located. Along the northern wall is a bench, which is approximately 1.40 m wide. The entrance to the building is located on the western side, and there is a stone-paved exterior floor approximately 1.20 m wide in the north–south direction in front of the entrance.

Figure 7
Architecture of the Middle PPNB Period.

Building 8

This building has a distinctive plan among the identified MPPNB period structures in the settlement and can therefore be counted as special/public building. It measures 6.50 meters in the north–south direction and 6 meters in the east–west direction (Figure 8g). The walls are up to one meter thick. It is a single-spaced structure. On the eastern limits no wall was found. It is unclear if the building was lacking an eastern wall originally or if it is just not preserved. Additionally, the western and northern walls show traces of rebuilding on the interior. The northern wall is shared with Building 7.

Figure 8
Residential architectural and public/special buildings of the Middle PPNB Period.



Domestic Structures

So far, we have identified 17 dwellings dating to the MPPNB period. The majority of these dwellings have been fully excavated, and their floor plans have been determined. All of these dwellings were constructed just west of the Terrazzo Building (Figure 7). The dwellings, which vary in size and number of rooms, exhibit significant differences among themselves. All of the dwellings show stone foundations. The stone foundations are preserved in some places with up to two to four courses of stones. The recovered fragments of mudbrick (*kerpiç*) indicate that the walls were made of mudbrick.

2.1. Building 4.1

This building is located immediately southwest of Building 1.1. It is approximately 10 m long and 9 m wide (Figure 8c). The building comprises of four spaces. Space 4.1.1 is 9 x 6 m and dominates the western part of the building. To the east there are smaller rooms with varying widths spanning a length of 4 meters each. The floor surface of the building is made of pebbles, small fragments of marble, and of clay.

2.2. Building 5.1

This structure is located immediately to the south of Building 4.1 and shares a common wall with Building 4.1. It comprises of at least three spaces. The building is not fully excavated due to the presence of an oak tree in the eastern parts of the building. The preserved and exposed parts of this building suggest that

it could have been 8 meters wide and 10 meters long (Figure 8b). Similar to Building 4.1 there is on the western side of the building a space approximately 8 meters in length and 6.20 meters in width along the northwest–southeast axis. In field observations during excavation indicate the presence of at least two small compartments to the east of this building.

2.3. Building 6.1

Building 6.1 is located west of Buildings 4.1 and 5.1. The building extends in the north–south direction and has apse facing south (Figure 8h). The building is 6.5 meters long and 4.5 meters wide, and no wall is preserved on the north side. The space is divided into two separate compartments by an internal partition wall (about 20 cm high) located toward the north, which also forms the northern boundary of the apse. The apsidal section is 3.5 meters deep in north–south direction. The floor of the apse is paved with stone, while the floor of the northern compartment is covered with plaster made of marl and clay.

2.4. Building 7

This building has a rectangular shape and measures 9.50 meters in the north–south direction by 6.50 meters in the east–west direction (Figure 8e). It is located immediately south of Building 6.1. The interior of the building is divided by two internal wall segments, one added perpendicular to the southern wall and the other perpendicular to the eastern wall, creating at least three compartments. The southern part of the eastern wall is poorly preserved.

2.5. Building 9

This structure, located east of Buildings 7 and 8 and south of Building 5.1, has approximate measurements of 9.50 x 9.30 meters (Figure 8a). On the western side of the building there is a space that is measuring 5 x 9.50 meters. On the eastern side there are four small rectangular compartments in a cell-like form, each extending in the east–west direction and measuring 4.20 meters in length. The floor of the building is plastered with hard compacted mud except for the northernmost compartment which is covered with a mix of marl and pebble stones.

2.6. Building 10

Located northwest of building 1.1, this structure has measurements of 7.90 meters in the east–west direction and 9.30 meters in the north–south direction (Figure 8d). It is divided into at least three compartments with independent walls of varying dimensions.

2.7. Building 11

Situated northwest of Building 10, this structure measures 9.50 x 5 meters, extends in the east–west direction and has a rectangular plan. The building consists of at least four spaces and there is a large compartment divided into two sections in the south. On the northern side of the building there is a narrow rectangular compartment measuring c. 7 meters by 1.60 meters. On the western side, there is another compartment measuring 2.50 meters in width and 5 meters in length.

2.8. Building 12

Building 12 is located west of building 10. Only a small portion of it has been uncovered so far. The walls indicate that it is a multi-room building with at least two separate spaces. The excavated area of the building measures around 7 meters in the north–south direction and about 5 meters in the east–west direction.

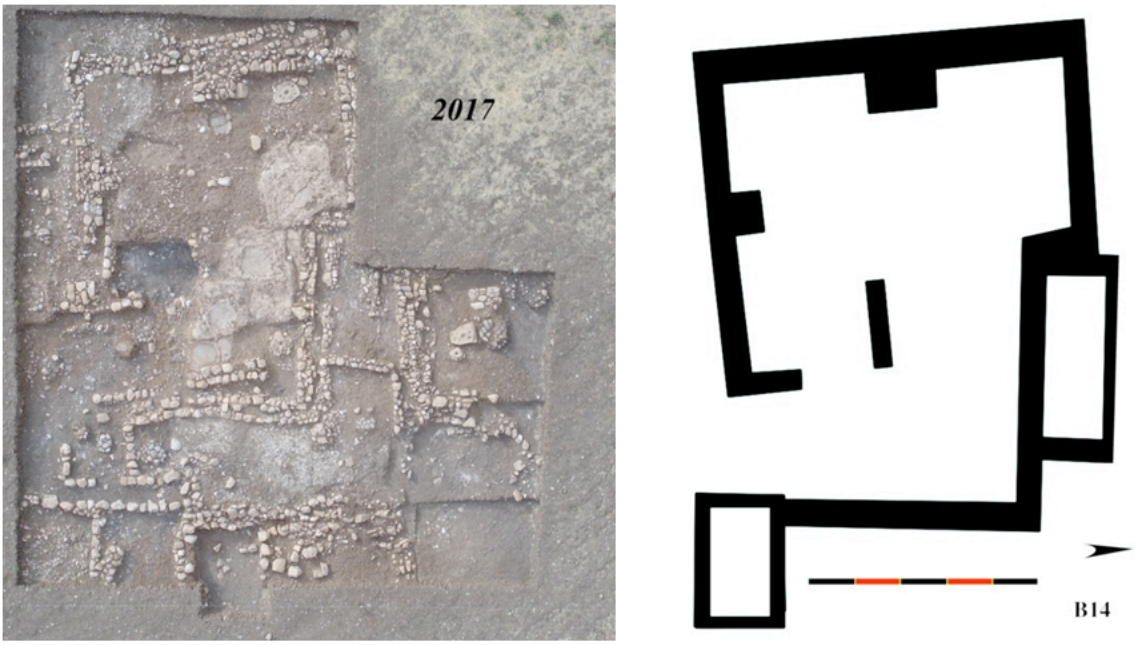
2.9. Building 13

Positioned just north of Building 11, this structure measures 6 meters in the east–west direction. Only a part of it has been excavated until now. The exposed part measures 3 meters in the north–south direction.

2.10. Building 14

This building has a main space measuring approximately 7.25 meters in the north–south direction, 6.50 meters on the eastern side and 8 meters on the western side, and 10 meters in the east–west direction (Figure 9). In the southeastern corner of the main space there is a rectangular room measuring 2-3 meters. To the northeast of the main space, between Building 14 and Building 15, there is another room measuring approximately 1.50 x 4 meters. Additional walls found to the south of the main space suggest the presence of other small rooms. The building is constructed on stone foundations, and its floor is covered with reddish clay soil and small pebbles. There are three supporting buttresses of varying sizes in front of the northern, southern, and western walls of the central space. They are most probably late addition, which have nothing to do with the original function or use of B14. The standout feature of this building is its plan, which consists of a central large space surrounded by scattered, small rooms, in contrast to the more symmetrical form seen in the other structures.

Figure 9
Kitchen building dated to the Middle PPNB Period.



2.11. Building 15

Located northeast of Building 14, it is only partially exposed, with a total of 6 meters in the east–west direction and 5 meters in the north–south direction. Along the southern wall there is a stone-paved bench 6 meters long and approximately 80 cm wide.

2.12. Building 16

Located northwest of Building 14 and west of Building 15, only a small portion of this structure has been uncovered (measuring 4.50 m x 3.50 m). It is represented by parts of a wall and some plaster floor fragments, including a slightly elliptical curving wall in the northeastern direction and three parallel walls, partially,

stretching in the northwest–southeast direction. Currently, it is impossible to provide full information about the size and plan of this building. Its slightly elliptical plan, points towards similarities with Building 6.1. However, the overall arrangement seems to be different. This additional oval area indicates that this building may also have an apsidal plan. Further investigations would be needed to provide additional information.

2.13. Building 17

This building is located west of Buildings 7 and 6.1. Only the eastern part of the building has been excavated. It has a length of 7.30 m. No further information is available at this point.

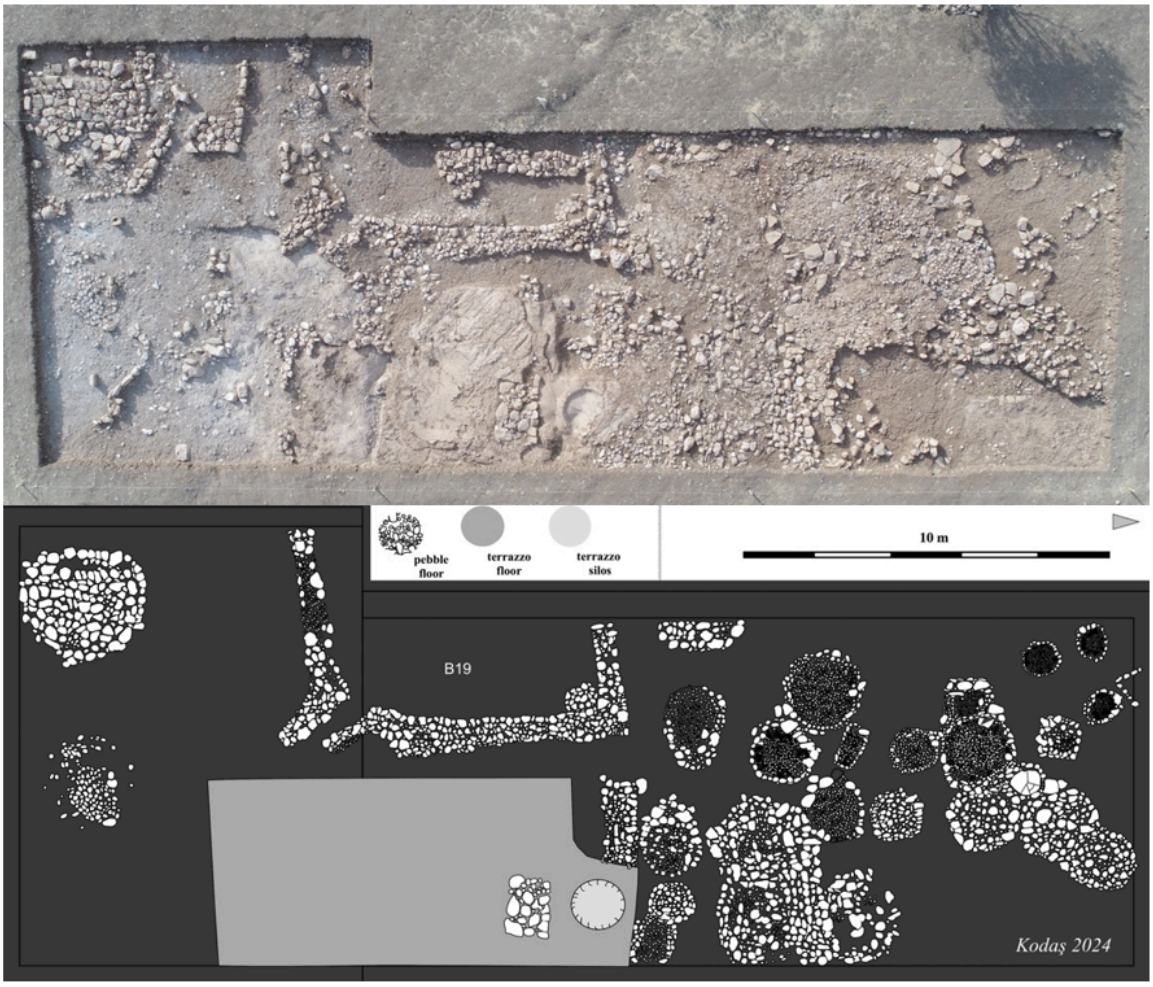
2.14. Building 18

This building is located to the east of Building 14 and there is no common wall between the two buildings. This building measures approximately 11 meters in the north-south direction by x 5.5 meters in the east-west direction. The space to the north is approximately 6.40 meters long and 5.5 meters wide. The structure to the south is 5.10 meters wide and 5.5 meters long. This space is divided into two by a short wall.

Storage area

We identified an area of about 350 m² in the central area of archaeological site of Boncuklu Tarla, showing the remains of 29 circular silo bases, possiblement contemporary with the MPPNB architecture (Figure 10). The radii of these silo bases range from 0.50 to 2.20 m. The outer walls of these silos are constructed with a single row of small-sized pebbles since these are not linear; the floors of the silos are covered with compacted clay plaster, small limestone rocks, or pebbles. Within this part of the site, some areas have terrazzo floors and angular plans but we have not uncovered any associated walls. Here, the excavations also exposed a circular silo base with a terrazzo floor. While we have found remains of grain inside these storage units, the numerous animal bones and fish vertebrae that occur in the area suggest that they were used to store a variety of products, including both plant and animal ones. Additionally, a significant portion of a building (B19) approximately 8.40 m wide, has been excavated in the southwest of this excavation area. The building is constructed on a stone foundation. Access to it is provided via a long porch located in the south-eastern corner. This building is probably an animal pen or a place to process cereals. However, the analyses planned to be carried out in the following years will provide clearer information about the function of the structure.

Figure 10
Storage units of the Middle PPNB Period.



Village-Space Organization (Spatial Organization)

Boncuklu Tarla residential architecture can generally be classified into three types of spaces, exhibiting variations in size, floor plans, and spatial organization: single-spaced structures, multi-room structures, and apsidal plan structures. This indicates that there may be less complex special/public buildings that may have less sophisticated plans or alterations (similar to domestic buildings). Consequently, it can be said that there is no monotype in terms of plan or size. Furthermore, significant differences can be observed among the multi-room units themselves. Some buildings (B14, B15, and B18) are characterized by a larger central space surrounded by smaller units. On the other hand, the interior spaces of buildings B7, B10, and B11 have been constructed in a more complex and different way. Buildings B4.1, B5.1, and B9 are observed to have compartments in the eastern direction. Structures B6.1, and probably B16, feature apsidal plans. The single-room structure B8 is poorly preserved. Structure B2.1, however, is more of a special rather than a residential structure, given its relationship with Building 1.1 and its interior arrangement. The village spatial organization underwent significant changes during the PPN in the Near East and can be followed at Boncuklu Tarla (Figure 11).

Figure 11
Village-space organization of the Middle PPNB Period.

Upon close examination of the spatial organization in the MPPNB layers at Boncuklu Tarla, it can be observed that buildings identified as "residential" or domestic are located west of Building 1.1. But "storage area," or "storage facilities" which could be understood as special/public (collective/communal), are situated east of Building 1.1. This observation is significant as it supports the notion that Building 1.1 is at the center of the settlement arrangement. Furthermore, the storage area east of Building 1.1 indicates that all these features were constructed independently from the dwellings and have a special/public (collective/communal) rather than individual nature. In this context, the spaces surrounding the main area on the west and north of Building 1.1 can be considered as collectively constructed storage units. It is unclear if they were already built together with the central space or added later. The fact that these cells have dimensions of 1 meter in width and 2–3 meters in length and contain four pestles stored together within them also indicates communal storage of shared tools. Noteworthy is the absence of graves in Building 1.1 and in the area to its east with the communal storage storage facilities.

Most of the MPPNB period structures contain burials. Consequently, it can be assumed that during the MPPNB period at Boncuklu Tarla, individuals were generally buried within residential units, and not in areas

considered as special/public (collective/communal). Another piece of important information regarding the MPPNB layers at Boncuklu Tarla stems from Building 14: here numerous hearths, grinding stones, and silo bases were uncovered. This building, belonging to a different neighborhood from Building 1.1, is distinct from the other dwellings of this period both in terms of its plan layout and internal organization: on the floor 14 hearths and five grinding stones, as well as several pestles and 5 silos with plaster floors, mostly concentrated around the hearths, were found. Furthermore, two stone containers dating as well to the MPPNB period were found within this building.

The residential units are found on the (flat) top of the plateau of Boncuklu Tarla. At the moment it is hard to say how far the MPPNB occupation stretched. Building 1.1. is located on the fringes of the residential quarters – outside the living quarters. East of the special/public building – downhill – an activity zone is attested, as well the community's storage area. The residential units form clusters which could be understood as neighborhoods or quarters.

Discussion

Numerous architectural remains from the Middle PPNB period have been uncovered in various settlements in Northern Mesopotamia, such as Çayönü (Erim-Özdoğan & Özdoğan, 1989; Erim-Özdoğan, 2011), Cafer Höyük (Cauvin et al., 2011), Gre Fılla (Ökse, 2021), Nevali Çori (Hauptmann, 2012), Göbekli Tepe (Schmidt, 2012; Kinzel, 2019; Kinzel & Clare, 2020), Sefer Tepe (Güldoğan & Uludağ, 2022), Akarçay Tepe (Özbaşaran & Molist, 2007; Özbaşaran & Duru, 2011), Tell Halula (Molist, 2007; 2015), and Tell Abu Hureyra (Moore et al., 2000; Aurenche, 1981; Banning, 2000, Figure 1). For example, Çayönü in the Upper Tigris Valley is represented by stone-paved or channeled structures in the MPPNB period. The architectural features at Çayönü differ significantly from those at Boncuklu Tarla during the MPPNB period. But at both sites comparable special/public buildings are present during the MPPNB period. At Cayönü the so-called terrazzo building dates to the LPPNB period or the so-called cell-plan building phase (Erim-Özdoğan, 2011). At Boncuklu Tarla Building 1.1 was already constructed during the MPPNB period and stayed in use as well in the LPPNB period. At both sites the special/public buildings were built separated from the domestic structures, just outside the living quarters. A similar approach is also known from Nevali Çori (Hauptmann, 2011). At Boncuklu Tarla cell-plan structures were built west of Building1.1, which stayed in use during the LPPNB period, and demonstrates some similarities with LPPNB period architecture known from Çayönü (Schirmer, 1998), Nevali Çori (Hauptmann, 2011) and Gre Fılla (Ökse, 2021). In particular, some of the rectangular, multi-roomed structures at Gre Fılla feature larger main spaces surrounded by smaller interconnected rooms (Ökse, 2021). These resemble features known from e.g. Building 4.1, Building 5.1, and Building 9 at Boncuklu Tarla. Additionally, both sites feature numerous buildings with small-scale buttresses. However, at Gre Fılla, for special/public buildings circular ground plans are continued to be used during the MPPNB period onwards. (Ökse, 2021). The three special/public buildings at Gre Fılla are located at the northern edge of the site, but partially with domestic structures built in between them. In this context, the village-space organizations at Gre Fılla and Boncuklu Tarla show some individuality in the settlement organization.

In the Upper Euphrates Basin, at the settlement of Nevali Çori, the MPPNB period architecture (Layers 4–5) is represented by rectangular structures (Hauptmann, 2012). The architecture of Layer 4 at the site shows similarities to cell-plan buildings at Çayönü. However, Building 1, uncovered in Layer 5, is divided into rooms by short internal walls, with a larger space to the southeast (Hauptmann, 2012). This building, therefore, exhibits some architectural similarities to Building 7, Building 10, and Building 11 uncovered at Boncuklu Tarla. An activity area, similar to the one exposed at Boncuklu Tarla was as well found at Nevali Çori along the creek in front of the residential buildings. Multi-roomed structures have also been revealed in Akarçay Tepe (Layers 11–9), located further south in the banks of river Euphrates (Özbaşaran & Molist, 2007; Özbaşaran &

Duru, 2011). The single-spaced structures at Akarçay Tepe exhibit some similarities with dwellings identified at Gre Fılla (Ökse, 2021) and Gürcütepe (Beile-Bohn et al., 1998), rather than Boncuklu Tarla. Cafer Höyük, located farther north, reveals domestic MPPNB period (Layers 8–5) structures that, despite having a rectangular plan, can be described as other types due to the internal partition walls (Cauvin et al., 2011).

This points to a more local architectural tradition that is specific at Boncuklu Tarla. In the Şanlıurfa region, Göbekli Tepe (Schmidt, 2012; Kinzel & Clare, 2020), Harbetsuvan Tepesi (Çelik, 2019), Sayburç (Özdoğan & Uludağ, 2022), and Sefer Tepe (Güldoğan & Uludağ, 2022) have their own distinctive architecture. The buildings, constructed adjacent to each other, display diversity in terms of size and layout. Additionally, a significant portion of the outer walls of the buildings are shared, and there are T-shaped pillars (Kurapkat, 2015; Kinzel, 2019; Kinzel & Clare, 2020; Çelik, 2019; Özdoğan & Uludağ, 2022). In northern Syria, at Tell Halula, rectangular-planned dwellings are found that feature larger sections that could serve as main spaces with smaller rooms attached (Molist, 2007; 2015). In this regard, MPPNB period architecture at Tell Halula shares some similarities with Boncuklu Tarla's Building 4.1, Building 5.1, and Building 9. It is important to note, however, that structures in Tell Halula were built with pisé (rammed earth) (Molist, 2015), whereas at Boncuklu Tarla they were constructed with mud-brick walls on stone foundations. The MPPNB period architecture uncovered at Tell Abu Hureyra III exhibits similar characteristics to Tell Halula (Moore et al., 2000). However, in this case the buildings have mud-brick walls (Moore et al., 2000).

Although there are some similarities between Southeast Anatolia and Northern Syria, there are many differences between construction methods and village space organizations. Overall, significant differences and similarities are displayed in the architectural remains uncovered at Boncuklu Tarla and other settlements. However, Boncuklu Tarla's MPPNB period “public/special” architecture and village-space organization exhibit closer resemblances to the so-called Terrazzo Building and cell-plan structures of Çayönü’s LPPNB period (Schirmer, 1990; Erim-Özdoğan & Özdoğan, 1998; Erim-Özdoğan, 2011). Additionally, it must be remembered that Building 1.1 in Boncuklu Tarla continued to be used during the LPPNB period, while the residential buildings underwent a transition towards cell-plan structures during this phase (Kodaş, 2019). Thus, all considered, it can be said that the Upper Tigris Valley exhibits significant internal variation but also possesses certain regional traditions both in chronology and regional contexts. Moreover, it is possible to state that the settlement features at least three neighborhood spatial organizations, two of which surround Building 1.1 and one which is located to the northwest of this building around Building 14. At this point, the building can be considered together in the north-south direction B2.1, B4.1, B5.1, B9, B10, B11, B12 and B13. B6.1, B7, B8 and B17, southwest of them, constitute a different area. Finally, B14, B15, B16 and B18 can be interpreted as the last area in the northeast. However, the excavations in this area should continue and the areas in question should be further strengthened and examined.

Conclusion

The Middle PPNB period architecture at Boncuklu Tarla can be defined through four distinct architectural elements: special/public buildings, residential buildings, public open areas, and communal storage areas. The central feature of the village-space organization, the neighborhoods of domestic structures, the (special/public) Building 1.1, and the exterior activity zones exhibits striking similarities to the settlement patterns at Çayönü and Nevali Çori (Özdoğan, 1999; Erim-Özdoğan, 2011; Hauptman, 2021). The main space of building 1.1 resembles —in terms of size, plan, and construction style elements of the Terrazzo Building at Çayönü. However, the spaces surrounding the main room of Building 1.1 at Boncuklu Tarla show a more complex concept. This complex architectural organization could be compared to the T- and HV- complexes at Aşıklı Höyük (Özbaşaran, 2012). The dwellings dating to the MPPNB period can be classified into two distinct groups based on their floor plans: single-spaced and multi-roomed structures. However, both the single-

spaced and multi-roomed structures exhibit significant variations within their respective groups in terms of their floor plans: 1) apsidal-planned buildings, 2) multi-roomed structures, 3) cell-plan structures with a main space, and 4) simple single-spaced structures.

In conclusion, during the MPPNB period, Boncuklu Tarla exhibits a diverse range of architectural concepts with different plans and functions, and the village-space organization indicates a systematic organization around Building 1.1. The houses (B4.1, B5.1, and to a lesser extent B9 and B11) directly adjacent to Building 1.1 are larger and possess a different architectural style compared to other houses. These features suggest, as put forward in Çayönü, that these structures may have had a distinct role compared to others, potentially reflecting the architectural manifestation of social hierarchy. According to Özdoğan, a similar situation is known at Çayönü during the LPPNB Period, where the presence of cell-planned structures and the Terrazzo Building indicates a comparable pattern (Özdoğan 2018). As a result, it is seen that the village space organization at Boncuklu Tarla during the MPPNB period has a clear organization and there is a connection between the use of the areas between houses and public/special building. This shows that a different village space organization during the Middle PPNB period that has been separated from the houses (especially unlike the public/special building in the central position of PPNA period), has emerged for a new organisation.

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References

Aurenche, O. (1981). *La Maison orientale: l'architecture du Proche Orient ancien des origines au milieu du quatriéme millénaire.* Paris, Paul Geuthner presse.

Aurenche, O. & Kozlowski, S.K. (2010). *Territories, Boundaries and Cultures in The Neolithic Near East,* Bar International Series 1362. Oxford: Archaeopress.

Banning E.B. (2000). Housing first farmers: The development and evolution of built environments in the Neolithic of the Taurus-Zagros Arc. In *ICAANE 2 - International Congress on the Archaeology of the Ancient Near East*, Carsten-Niebuhr Institute, University of Copenhagen, 22-27 May.

Banning, E. B. (2011). So fair a house: Göbekli Tepe and the identification of temples in the Pre-Pottery Neolithic of the Near East. *Current anthropology*, *52*(5), 619-660.

Banning, E. B. (2023). Paradise found or common sense lost? Göbekli Tepe's last decade as a prefarming cult centre. *Open Archaeology*, *9*(1), 20220317.

Banning E.B. & Byrd B.F. (1987), Houses and the Changing Residential Unit. Domestic Architecture at PPNB 'Ain Ghazal, Jordan, *ProcPrehistSoc* 53/1, 309–325

Cauvin, J., (1997). *Naissance des divinités. Naissance de l'agriculture*. Paris: CNRS Éditions,

Cauvin, J., Aurenche, O., Cauvin, M.C.L., & Balkan-Atlı, N., (2011). The pre-pottery Site of Cafer Höyük. In: Özdogan M., Basgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey, Volume 1,* Archaeology & Art Publications, Istanbul, pp. 1-19.

Clare L. - Ditrich O. & Gresky-Show J. (2019) Ritual Practices and Conflict Mitigation at Early Neolithic Körtik Tepe and Göbekli Tepe, Upper Mesopotamia. *Violence and the Sacred in the Ancient Near East*, 96-128.

Çelik, B., (2019). Neolithic Period Cult Center: Harbetsuvan Tepesi. *Karadeniz Uluslararası Bilimsel Dergisi,* Volume 43, 24-38.

Çiftçi Y. (2022). Çemka Höyük, Late Epipaleolithic and PPNA Phase Housing Architecture: Chronological and Typological Change. *Near Eastern Archeaology* 85/1, 12-23.

Ekinbaş Can Ö. (2022). Preliminary Report on the 2018-2019 Excavations at Gre Fılla, Ambar Valley in the Upper Tigris Basin, Southeastern Turkey. *Anatolica* 48, 75-100.

Erim-Özdoğan, A., (2011). Çayönü. In: Özdogan M., Basgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey, Volume 1,* Archaeology & Art Publications, Istanbul, pp. 185- 269.

Finlayson B. (2014) Houses of the Holy: The evolution of ritual buildings. İn: Bill Finlayson and Cheryl Makarewicz (ed.) *Settlement, Survey, and Stone. Essays on near eastern prehistory in Honour of Gary Rollefson*. 133-143 Ex Oriente, Berlin.

Güldoğan, E., & Uludağ, C., (2022). Sefertepe, the Eastern Border Settlement of the "Stone Hills" Project: First Results. *Arkeoloji ve Sanat Dergisi*, 177, 13-26

Hauptmann, H., (2012). The Urfa Region. In: Özdogan M., Basgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey, Volume 2,* Archaeology & Art Publications, Istanbul, pp. 85-138.

Hodder, I. (2016) More on History Houses at Çatalhöyük. *JASc* 67, 1–6.

Hodder, I. (2022) Staying Egalitarian and the Origins of Agriculture in the Middle East. *Cambridge Archaeological Journal* 32/4, 1-24.

Hodder I. & Pels P. (2020) History Houses. A New Interpretation of Architectural Elaboration at Çatalhöyük, in: I. Hodder (ed.), *Religion in the Emergence of Civilization. Çatalhöyük as a Case Study* (Cambridge 2010), 163-183.

Kinzel, M., & Clare, L., (2020). Monumental - compared to what? A perspective from Göbekli Tepe. In: Gebauer A., Sorensen L., Teather A., and De Valera A. (eds) *Monumentalising Life in the Neolithic: Narratives of Change and Continuity,* London, Oxbow Books, pp. 31-50.

Kodaş, E., (2018). A New Pre-Pottery Neolithic Settlement in the Upper Tigris: Boncuklu Tarla Excavations and First Observations. *Arkeoloji ve Sanat Dergisi* 157, 7-20.

Kodaş, E., (2019). Un nouveau site du Néolithique précéramique dans la vallée du Haut Tigre: Résultats préliminaires de Boncuklu Tarla. *Neo-Lithics* 19, 3-15.

Kodaş, E., (2020). Some observations on residental living and storage units in Pre-Pottery Neolithic period in the Near East: samples of Boncuklu Tarla." *Anadolu/Anatolia* 46:123–46.

Kodaş, E., (2023). The younger Dryas layer at Boncuklu Tarla and the beginning of village life in the upper Tigris Basin. *Archeological Research in Asia* 35, 30-44.

Kodaş E. & Çiftçi Y. (2021) Public Buildings and Spatial Organization during the Pre-Pottery Neolithic A Period: the Case of Boncuklu Tarla / SE Turkey: First Report. *Istanbuler Mitteilungen* 71, 43–65.

Karul, N. (2011) Gusir Höyük. In Özdoğan, M., Başgelen, N. & Kuniholm, P. (eds) *The Neolithic in Turkey: New Excavations and New Research: The Tigris Basin*, Arkeoloji ve Sanat Yayinlari, Istanbul, 1–17.

Karul N. (2022). "Karahantepe Çalışmalarına Genel Bir Bakış". *Arkeoloji ve Sanat Dergisi* 169, 1- 8.

Kozlowski, S.K. & Kempisty, A. (1990). Architecture of the Pre-Pottery Neolithic settlement in Nemrik, Iraq. *World Archaeology* 21/3,348-362.

Kuijt, I. (2000). People and Space in Early Agricultural Villages. Exploring Daily Lives, Community Size, and Architecture in the Late Pre-Pottery Neolithic, *Journal of Anthropological Archaeology* 19, 75-102.

Molist, M., (2001). Halula, Village Néolithique en Syrie du Nord. In : Guilaine J. (ed.), *Communautés villegoises du Proche Orient à l'Atlantique (8000–2000 avant notre ère)*, Paris, Editions Errance, pp. 35-52.

Molist, M., (2015) Le processus de consolidation de la Néolithisation au Proche-Orient: apports de l'étude du site de Tell Halula (Vallée de l'Euphrate, Syrie). In : Manen C., Perrin T. & Guilaine J. (eds), *La transition néolithique en Méditerranée* (Actes du colloque Transitions en Méditerranée, ou comment des chasseurs devinrent agriculteurs, Muséum de Toulouse, 14-15 avril 2011). Arles, Archives d'écologie préhistorique, éditions Errance-Actes Sud, pp. 109-121.

Moore, A., Hillman, G., & Legge, A. (2000). *Village on the Euphrates. From foraging to farming at Abu Hureyra*, Oxford-New York, Oxford University Press.

Ökse, A.T., Taşkiran, H., Kartal, M., Atay, E., Görmüş, A., & Erdoğan, N. (2014). Ilısu Dam Construction Site Excavations in 2012. *Kazı Sonuçları Toplantısı 35/1*, 102-112.

Ökse, A.T., (2021). Ambar Dam Salvage Excavations 2018-2020: Ambar Höyük, Gre Filla, and Kendale Hecale. Steadman, S.R. & Gregory, M. (eds). *The Archaeology of Anatolia*, Volum IV, London, pp. 4-20.

Özbaşaran, M. (2012). Aşıklı Höyük." In: Özdogan M., Basgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey, Volume 3*, Archaeology & Art Publications, Istanbul, pp. 135-158.

Özbaşaran, M., & Duru, G. (2011) Akarçay Tepe, A PPNB and Settlement in Middle Euphrates Urfa. In: Özdogan M., Basgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey, Volume 1,* Archaeology & Art Publications, Istanbul, pp. 165-202.

Özbaşaran, M., & Molist, M., (2007). Akarçay Tepe, a New Settlement from the Neolithic Period in the Middle Euphrates, (Akarçay Tepe, Orta Fırat'ta Neolitik Döneme Ait Yeni Bir Yerleşme). In: Özdogan M., & Basgelen N., (Eds.), *Türkiye'de Neolitik Dönem, Yeni Kazılar, Yeni Bulgular.* Archaeology & Art Publications, Istanbul, pp.179-187.

Özdoğan E. & Karul N. (2020). Neolitik Teriminin Kavramsal Değişimi ve Güneydoğu Anadolu'da Neolitik Araştırmalarının Dünü-Bugünü. *Arkeoloji ve Sanat Dergisi* 163, 1–28.

Özdoğan, E. & Uludağ, C. (2022). Sayburç. Şanlıurfa'da Yeni Bir Çanak-Çömleksiz Neolitik Dönem Yerleşimi. *Arkeoloji ve Sanat Dergisi* 169, 9-24.

Özdoğan, M., (1999). The Transition from Sedentary Hunter-Gatherers to Agricultural Villages in Anatolia- Some Considerations." In : Dinçol A. (ed.). *Çağlar Boyunca Anadolu'da Yerleşim ve Konut Uluslararası Sempozyumu (Bildiriler).* Archaeology & Art Publications. İstanbul, pp. 311-319.

Özdoğan M. (2005) Yeni Veriler Işığında Anadolu Mimarisinin Dünya Mimarisine Katkıları, In: Fehiman Yurttaş (Ed.) *Geçmişten Geleceğe Anadolu'da Malzeme ve Mimarlık Sempozyum / UIA 2005 XXII. Dünya Mimarlık Kongresi*, TMMOB Mimarlar Odası İstanbul Büyükkent Şubesi Yayınları, İTÜ Taşkışla İstanbul, 145–162.

Özdoğan, M., (2018). Humanization of buildings. The Neolithic ritual of burying the sacred. *Origini* XLI, 7-24.

Özdoğan, M., & Erim-Özdoğan, A., (1998). Buildings of Cult and the Cult of Buildings. In: Arsebük, G., Mellink, G., & Schirmer, W. (eds). *Light on top of the Black Hill. Studies Presented to Halet Çambel*. Ege Yayınları, İstanbul, pp. 581-593.

Rosenberg, M. (2011). Hallan Çemi, In Özdoğan, M., Başgelen, N. & Kuniholm, P. (eds), *Neolithic in Turkey, The Tigris Basin*, Archaeology and Art Publications, Istanbul, 61–78.

Schmidt, K. (2012). *Göbekli Tepe a Stone Age sanctuary in South-Eastern Anatolia*. Berlin, ArchaeNova; First Edition edition.

Stordeur D. (2000). Jerf el Ahmar et l'émergence du Néolithique au Proche Orient. In : Guilaine J. (ed.) *Premiers paysans du Monde,* Errance. Paris, pp. 31-46.

Stordeur, D. (2015) *Le village de Jerf el Ahmar (Syrie, 9500–8700 av. J.-C.): L'architecture, miroir d'une société néolithique complexe.* Paris, CNRS Éditions.

Şahin F. & Uludağ C. (2023). Çakmak Tepe 2021 Excavation. *Excavation Results Meeting* (Çakmak Tepe 2021 Yılı Kazı Çalışmaları. *Kazı Sonuçları Toplantısı*) 43/1: 453–470.

Voigt, M., (1988). Excavations at Neolithic Gritille. *Anatolica XV,* 215-232.

Watkins T. (2020). Monumentality in Neolithic of southwest Asia: making memory in time and Space. In : Gebauer A., Sorensen L., Teather A. & De Valera A. (eds), *Monumentalising Life in the Neolithic: Narratives of Change and Continuity*. Oxbow Books, 19-27.

Yartah, T. (2013). *Vie quotidienne, vie communautaire et symbolique a Tell Abr 3 – Syrie du Nord. Données et Nouvelles reflétions sur l'horizon PPNA au Nord du Levant 10 000-9 000 BP*. Lyon, Université de Lyon 2. Thèse de Doctorat, non publiée (Lyon 2013).