A History of the House at Late Neolithic Çatalhöyük

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Abstract: The Neolithic house was a focal point for the life of early farmers. It not only provided the basic necessity of shelter but served as a social object for creating and maintaining social bonds and relations. It was then both the production and consumption unit as well as major social entity. The site of Çatalhöyük in central Anatolia is known for its elaborate houses with rich furnishings and distinctive decoration, which are characteristic for its Early Neolithic phase of development. The Late Neolithic house, in contrast, marks a significant departure from the previously dominant form. Yet, these developments have not so far been systematically scrutinized. Here I present a synthetic overview of the major types of Late Neolithic houses at Çatalhöyük, dating to the final four hundred years of the settlement occupation, and revealed in the TP (Team Poznań) and TPC (Team Poznań Connection) Areas. Altogether, four distinct types of Late Neolithic houses at Çatalhöyük are discussed, from the oldest to the youngest: a late classic house; a solidly constructed house without a distinct floor; a light dwelling structure; and a multiroom house.

Keywords: Çatalhöyük, central Anatolia, Late Neolithic, household

The Late Neolithic marks the second major transition in the history of human societies in the Near East. While the Early Neolithic transition involved the emergence of sedentarism, domestication of plants and animals, and the beginnings of distinct art and imagery, as well as major technological advancements, the second transition comprised a *qualitative* transformation of these constituent elements of the Neolithic "Revolution," creating conditions for strengthening and consolidating local groups and providing the prerequisite foundations for their spread across vast areas. The new mode of existence comprised individualized and autonomous social units, an integrated arable-husbandry economy, pastoralism, the occupation of forest and coastal areas, and sacral landscapes, as well as significant changes in material culture, including in the character of the dwellings (see, e.g., Akkermans and Schwartz 2003; Düring 2011; Özdoğan 2011; Marciniak 2016).

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Houses were the core resources for the Neolithic communities. They not only provided the basic necessity of shelter but also served as social spaces that facilitated the creation and maintainance of social bonds and relations. As such, they were the locus of both production and consumption for the social units that lived in them. The relationship between the house and units of kinship, production, and consumption, however, is neither simple nor uniform. Moreover, this relationship may have changed as Neolithic groups grew and developed. Different houses may have been linked to each other by complex social ties and relations, creating residential units. They may have had different forms, from nuclear and extended families through "official" and "practical" kin to neighborhoods, sodalities, and house societies (e.g., Bourdieu 1970; Lévi-Strauss 1982; Joyce and Gillespie 2000; González-Ruibal 2006; Düring and Marciniak 2006; Hodder and Pels 2011; Pilloud and Larsen 2011).

The site of Çatalhöyük in central Anatolia has been widely known for its elaborate house with rich furnishings and distinctive decoration. The classic type of house was built of loam brick and was accessed from the roof by a ladder. Its internal space was carefully defined with domestic activities, as manifested by hearth and oven, taking place in the southern part of the structure, while its northern part, with decorated walls and benches, and platforms with burials beneath, served for ceremonial activities. It was occupied for two or three generations after which it was generally emptied of portable items and then carefully and systematically dismantled. Houses have a great degree of continuity, being rebuilt on the same location for up to five to six levels over several hundreds of years (Mellaart 1967; Cutting 2005; Hodder 2006, 2007).

As the scale of work of the Late Neolithic strata has been limited to date, the house from this period has never been systematically examined and its character is relatively unknown. Here I present an outline of major types of the Late Neolithic house at Çatalhöyük revealed in the TP (Team Poznań) and TPC (Team Poznań Connection) Areas, as an important manifestation of the Late Neolithic transition in central Anatolia. I focus primarily on their physical characteristics. The houses are discussed in the context of stratigraphy of the uppermost strata of the mound and within the newly adopted phasing scheme. The material character of the house will then serve as a means of inferring the nature of social groupings inhabiting the house and ultimately the nature of social changes in the Neolithic within the context of dynamic changes in the region in the second half of the seventh millennium BC. These goals are now more achievable than ever before due to significant methodological advancements at Çatalhöyük (Hodder and Marciniak 2015).

The work of the Late Neolithic levels at Çatalhöyük East in two distinct excavation zones—TP and TPC—has contributed significantly to understanding better this important period in the history of the Near East. It has revealed a

Table 1. Correspondence between levels from three major excavations areas at Çatalhöyük East and their relation to Mellaart's levels

	Levels		
Mellaart	**South/North/TP**		
I	TP-R		
I	TP-Q		
II	TP-P		
II	TP-O		
III	South T	North J	TP-N
III	South S	North J	TP-M
IV	South R	North I	
IV	South Q	North H	
(V)	South P	North H	
VIA	South O	North G	
VIB	South N	North G	
VII	South M	North F	
VIII	South L	North F	
IX	South K		
X	South J		
XI	South I		
XII	South H		
Pre XII	South Gi,G2,G3,G4		

significant departure from the arrangements of the classic period, including the character and form of dwelling architecture. This ca. 400-year-long period was represented in the form of six superimposed levels, labeled from the earliest, TP-M, to the latest, TP-R. They correspond to Mellaart's Levels III-0, South S-T, North J, Summit, KOPAL, and IST (table 1; Hodder 2014: fig. 1). The period witnessed dynamic changes in different domains and can be divided into the early Late Neolithic (ca. 6400–6250 cal BC) and the late Late Neolithic (ca. 6250–5950 cal BC; Marciniak 2015b).

The work in TP and TPC Areas was carried out in the years 2001–2017 (fig. 1). Both excavation areas are located on the top of the southern eminence of the East Mound. The TP Area is placed directly to the east of Mellaart's Area A, which was excavated in the first season of the 1960s campaign (Mellaart 1962). It is 10 × 15 m. The excavations in the Area were conducted in the years 2001–2008 by the team from the Adam Mickiewicz University in Poznań, Poland and the

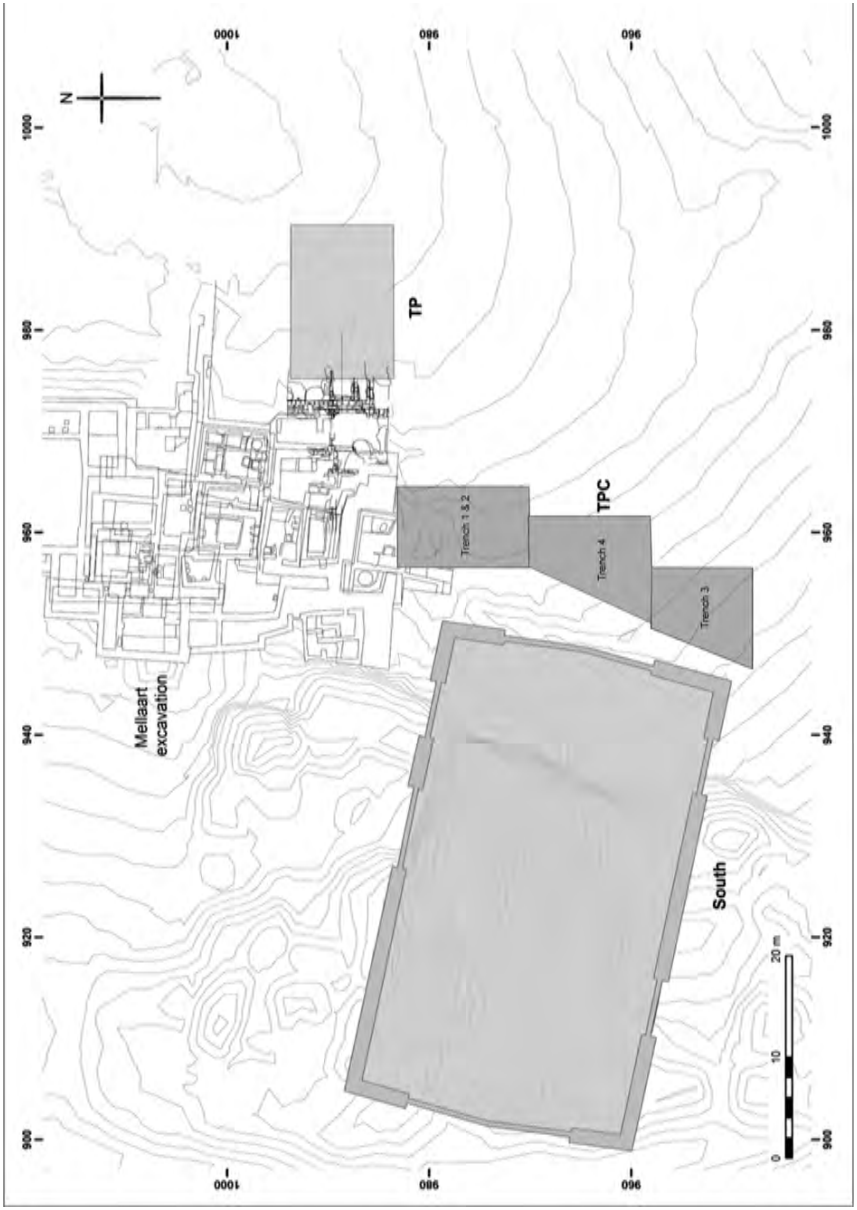

Fig. 1. TP and TPC Areas in relation to Mellaart A/B and South excavation areas

Institute of Archaeology and Ethnology, Polish Academy of Sciences (later University of Gdańsk) and were followed by a three-year study season. The TPC Area is placed between the TP Area and Mellaart's Area A to the north and South Area to the west. The strata recognized in the TPC Area are a direct continuation of

the sequence of levels in the South Area starting from the very bottom of the mound (see Hodder 2014). The Area is made of four interlinked trenches. Trench 1 is 5 × 5 m and is located directly to the south of the Mellaart Area A. Trench 2 is placed directly south of Trench 1 and its overall dimension is 5 × 6 m. Trench 4, measuring ca. 8 × 6 m, is located directly to the South. Trench 3 is located in southernmost part of TPC Area. It is quadrilateral in shape with southern and eastern edges being 10 m long and the northern edge measuring 6 m in length. A total surface of the TPC Area was ca. 150 m^2. The works in TPC Area were carried out in the years 2012–2017 by the team from the Adam Mickiewicz University in Poznań.

Stratigraphy and Phasing at the Late Neolithic Çatalhöyük

Arranging vertical stratigraphic sequences composed of superimposed buildings and their reconstructions, along with their relations to empty spaces, middens and other extramural deposits, is a complicated task at any tell site. It involves grouping recognized structures into levels and phases that are at least partially contemporary with one another. Introducing levels is a clearly interpretative tool and the process is often differently defined within different scholarly traditions and methodological schemata. Accordingly, phasing is certainly a separate action than establishing stratigraphic relationships among excavated structures and deposits, as it reflects a wide range of preferences for grouping the data.

The first phasing system at Çatalhöyük was introduced by James Mellaart in the 1960s (Mellaart 1967). Each superimposed building, its rebuilding, and ultimate closure, was attributed to a site stratification system called a "level." Altogether, Mellaart defined fifteen superimposed building levels numbered from XII at the bottom of the south eminence to 0 at the crest of the East Mound.

The new phasing system at the site was introduced in the 2000s. It is based upon the grouping of roughly contemporary structures and activities into levels. These levels are based on secure stratigraphic relationships. This new sequence is based on a single stack or column of buildings, which has been constructively demonstrated to be sequential in time. Implementing it involved rejecting Mellaart's labeling of levels with roman numerals, which was replaced by area-specific phasing and indicated by an area suffix such as South-T, North-H, TP-N and so on. The levels are labeled from the earliest to the latest, but the middle part of the alphabet has been used to allow for additions at either end (Bayliss, Farid, and Higham 2013).

Following the foundations of this new phasing program, the new TP strand, based upon the stratigraphy of the uppermost levels, was developed in 2010 for the TP Area and later adopted for the TPC Area. The Late Neolithic levels were labeled using letters of the alphabet from TP-M through TP-R. They substituted

Mellaart's levels 0, I, II, and III (1967). Consequently, the TP levels are now used to label all uppermost strata of the main strand of the East mound Catalhöyük, which span the complete Neolithic sequence. They are placed directly above the South Hodder Levels used to delimit the strata from the very bottom of the mound (table 1; see, e.g., Bayliss et al. 2015). The early phase of the Late Neolithic in the TP and TPC Areas overlaps with two uppermost levels in the South sequence (South S-T) (see Regan 2013).

The work in the TP and TPC Areas revealed a complicated stratigraphy involving a complex history of occupation with numerous reconstructions, rebuildings, and abandonments of houses and their changing relations with open spaces of different character. An implementation of the Late Neolithic phasing development in the TP Area was possible thanks to the recognition of superimposed dwelling structures. Its point of departure was a discovery of six dwelling structures (B. 81, 74, 72, 73, 62, 61). Each of them was defined as representing a separate level. A detailed examination of the TPC stratigraphy revealed its direct correspondence with the stratigraphy and phasing developed for the TP Area. Consequently, the TP strand was adopted for this Area and all nine dwelling structures (B. 121, 122, 150, 166, 110, 152, 109, 115, and 133) unearthed there were ascribed to one of the six Late Neolithic TP levels.

The earliest level in TP and TPC Areas is TP-M. It is represented by five houses. These are solid constructions with distinct floors and numerous in-built structures, such as platforms, hearths, ovens, and bins. They have been used intensively as implied by their numerous reconstructions. The walls in three of them, which have been preserved, were covered by plaster and then painted with a black and white geometric design. Their abandonment was followed by a short period in which the area went out of permanent use, as manifested by layers of midden and infill with indications of use in the form of hearths and activity areas.

The following TP-N is characterized by solid multiroom houses with compound walls but without distinct floors and burials beneath them. They were built either on middens or in fill deposits, which marks a discontinuation in the sequence and layout of buildings. Four houses represent this type.

Level TP-O marks a major discontinuity in the occupational sequence in both Areas. It is manifested in the form of a light dwelling structure recognized in the TP Area. It comprised an open space, probably surrounded by walls, and a hut-type construction, with a light roof. The following Level TP-P is represented by an open space, possibly a courtyard, which has been intensively occupied. However, following the adopted phasing solutions, it has been defined as a building and ascribed a number 73 (Space 432).

Levels TP-Q and TP-R are characterized by distinct multiroom dwelling structures of significant size. They were built directly on top of the midden and

infill layers of the open area from the preceding level. Altogether, five such buildings have been recognized in the TP and TPC Areas.

Form and Character of Late Neolithic Houses

Altogether four distinct types of houses have been distinguished in the Late Neolithic Çatalhöyük. These are: (1) late classic house from TP-M level; (2) solid house without distinct floors from TP-N level; (3) light dwelling structure from TP-O level; and (4) multiroom house from TP-Q and TP-R levels.

Late Classic House

Excavations in the TP and TPC Areas revealed a sequence of the late classic houses characterized by a range of features that make them distinct from the classic form of house at Çatalhöyük. These are located at the very bottom of both Areas and dated to TP-M level. Altogether, five such houses were recognized: B. 81 in the TP Area and B. 121, B. 122, B. 150, and B.166 in the TPC Area.

The late classic house is a relatively large building with a suite of in-built structures and a complex history of occupation involving numerous reconstructions and rebuildings. Similarly as in the classic phase, the northern part of the room was of ceremonial character while the southern part seemed to serve domestic purposes. It usually had distinct and well-maintained floors, subsequently built platforms, benches, and bucrania, as well as ovens and bins. Human burials were placed beneath some of the platforms. An interior of some of them was richly decorated in the form of sophisticated geometric paintings, mostly composed from simple figures like circles, lines, and triangles. The house abandonment was a deliberate and elaborated act. Interestingly, shortly afterwards, its space may have been temporarily used, as indicated by fire spots and activity areas of different form (see Marciniak 2015b).

One of the best recognized houses from this phase is B. 150 in the TPC Area. This is a large building with single walls of yellowish silty clay mud bricks. It covers an area of ca. 50 m^2. All the walls, but a larger part of the southern wall, are within the perimeter of Trench 4. The western, eastern, and northern walls were plastered and most likely painted. The scale of the wall decoration remains unspecified due to their destruction resulting from post-Neolithic activities. The internal layout of the house consists of a series of platforms and benches laid down alongside its eastern and southern walls.

The extent of excavation works in B. 150 made it possible to distinguish four distinct phases of its occupation. The original phase of its use has most likely not been reached. The final phase of the building's use (Space 594) bears all major characteristic features of the late classic house. The floor was made of a sequence of three distinct deposits: each of them had a similar texture and was composed

Fig. 2. Çatalhöyük East. B. 150, Sp. 594, F. 8278. Oven on southern platform. (Photograph by Anna Rybarczyk.)

of number of superimposed striations of gray plaster and very thin layers of make-up, which is indicative of intensive use. A small fire spot was located in the northern part of the house.

Two distinct and carefully designed platforms were built against the southern wall of the house and were physically linked with the central platform. A sequence of superimposed fire installations, one fire spot and three ovens were built on these platforms. The most distinct of them was a large oven F. 8278 (fig. 2). This is a regular, squared structure with a distinct floor and solid superstructure made of walls preserved to the height of 20 cm. These elements comprise the domestic part of the house where a range of daily activities was carried out.

Beneath the central-eastern platform of the house, as many as twenty-two individuals were interred in the form of primary, secondary, and tertiary burials. The most distinct was an adult female who died during the final stages of pregnancy and was buried with the baby in utero. She was accompanied by an adult primary disturbed inhumation. It had of red pigment on the frontal bone in the form of a straight, neat "stroke" of paint and was accompanied by a shell with red pigment and fragments of animal bones apparently associated with the skeleton (fig. 3). The closure of the burials involved the deliberate placement of two elaborate figurines next to the cut and carefully plastered platform surface. One of them represents a completely preserved large standing female figurine. It is made of marble, is ca. 17 cm long, and weighs more than 1 kg (fig. 4). The sec-

Fig. 3. Çatalhöyük East. B. 150, Sp. 594, F. 8759. Male skeleton with "stroke" of paint on the skull. (Photograph by Jason Quinlan.)

ond standing female figurine was carved and incised from pale yellow limestone. It is ca. 7 cm long and weighs around 55 g.

The change in the layout of the house in subsequent phases of its use involved the reconstruction of the platform, replastering of the floors, and the replacement of ovens or hearths. Of particular significance from one of the earliest phases of occupation was a special-purpose room in the southwest corner of the house (F. 8672). It contained numerous objects, mostly worked stones and stone tools including querns, pestles, polishing axes, balls, and a macehead. Two female stone figurines were found on the room's floor. Other elements in the cluster comprised a wooden bowl, a bone spoon (fig. 5), needle, points, an obsidian core, and leaf blades as well as cattle scapulae and mandibles.

B. 122 in the southern part of the TPC Area also has a distinctive character. Only the final phases of its use were revealed during the excavations and the larger part of it was located outside the perimeter of the trench. The house was oriented east–west. The section within the trench was ca. 5 m long and 4 m wide. Single walls of yellowish silty clay mud bricks were plastered and painted with a black and white geometric design in the form of vertical and transverse sets of parallel lines. Numerous features were revealed inside the room, including platforms, benches, and bucranium in its northern and eastern part, and ovens and hearths in the south. Of extraordinary character were two small pillars painted over with a geometric design, and placed on the bench, itself located against the

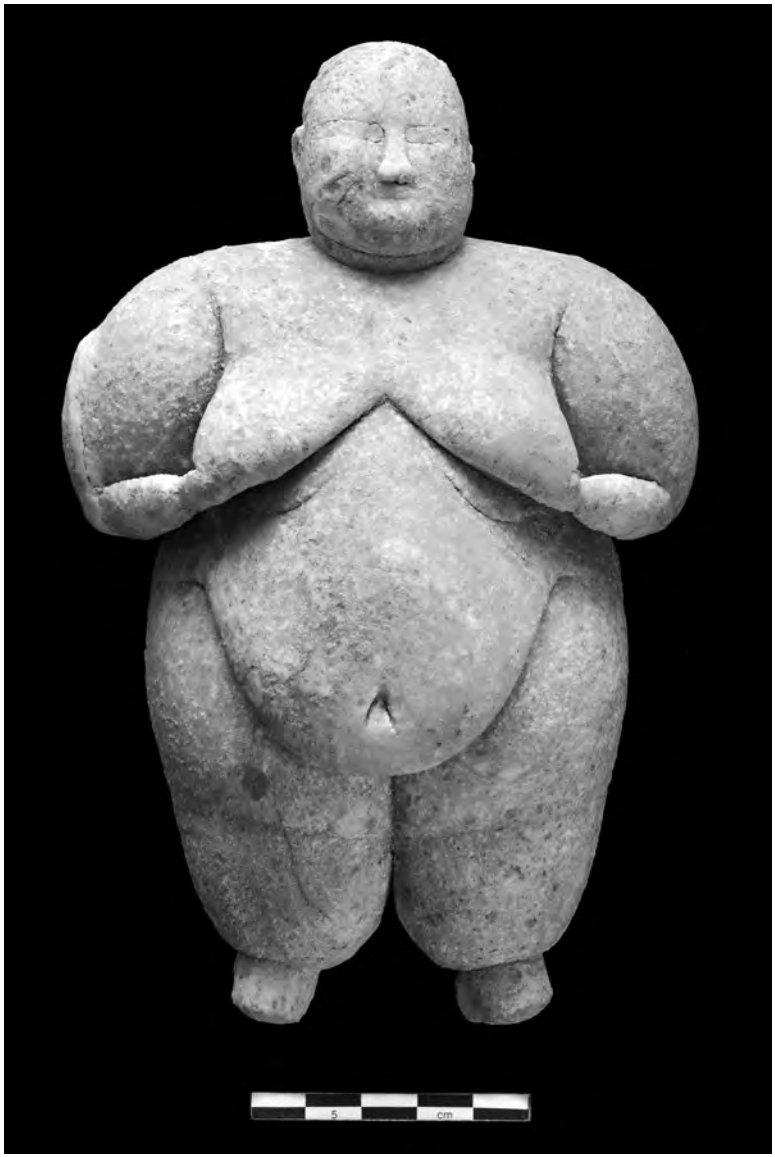

Fig. 4. Çatalhöyük East. B. 150, Sp. 594, F. 3855. Female figurine. (Photograph by Jason Quinlan.)

northern wall of the room. At least two distinct phases of its occupation were distinguished, as indicated by a sequence of superimposed floors (fig. 6).

An earlier phase of B. 122 included the construction of a distinct storage room (Space 493) of 3 m² with five small bins. The room in-fill yielded a large quantity of botanic remains and several ground stones. A pure and large deposit

Fig. 5. Çatalhöyük East. B. 150, Sp. 639, F. 8672. A bone spoon from the southwest room. (Photograph by Jason Quinlan.)

Fig. 6. Çatalhöyük East. B. 122, Sp. 562 and Sp. 493. (Photograph by Jason Quinlan.)

of naked barley was found in bins and a large, charred grain concentration and thick layers of articulated phytoliths represented a deposit of elongated "striate emmeroid" wheat. The bin finds of barley indicate that this was stored as pure grain ready for food preparation, with few inclusions of chaff or weed seeds (fig. 7; Fuller et al. 2014).

Another distinct late classic house, B. 121, was discovered in Trench 2 in the TPC Area (Marciniak et al. 2013). Similar to B. 122, only its final phase of occupation was unearthed and partly excavated. Its eastern and northern single walls were inside the trench while the remaining two were situated beyond its perimeter. They were plastered and painted with a black and white geometric design in the form of vertical and transverse sets of parallel lines, similar to that in B. 122. It was a relatively large house with a suite of in-built structures, including

Fig. 7. Çatalhöyük East. B. 122, Sp. 493. Storage room with bins. (Photograph by Jason Quinlan.)

platforms, hearths, and bins, which followed a division into "clean" and "dirty" segments. A large fire installation was placed in the center of the house. It was rectangular in shape and had thick, raised, plastered walls. Five platforms along the eastern and northern walls of the building were not contemporaneous, which is indicative of the house having subsequent reconstructions. It is very likely that the burials were placed beneath the house's eastern platform.

An exemplary case of the late classic house, B. 81, comes also from the TP Area (fig. 8). As it has only been exposed and recorded but left unexcavated, neither details of its use nor subsequent reconstructions are apparently revealed (Czerniak and Marciniak 2008). The central room was ca. 47 m^2. Recent work carried out east of the TP trench in the Mellaart Area A/B (Mellaart 1962) revealed an arguably western room of B. 81 (space 555) of ca 20 m^2, the floor of which was placed as much as ca. 50 cm below the main room of this house (Barański, Nowak et al. 2015).

The white floor was made of fine striations indicating numerous replasterings. The uppermost floor was made on a 6-cm-thick make-up comprised of small white pebbles mixed with brownish clay. A sequence of platforms was placed alongside the eastern wall of the house, while two superimposed platforms were placed in its southeast corner. Both of them were covered by a solid gypsum layer and constructed upon a thick make-up of white pebbles, similar to the house floor. A large platform ca. 4 m^2 was placed in the central-southern part of B.81. Eastern platforms were truncated by later burial chamber Sp. 327 and we can only speculate that this may have destroyed burials beneath the plaforms (fig. 9).

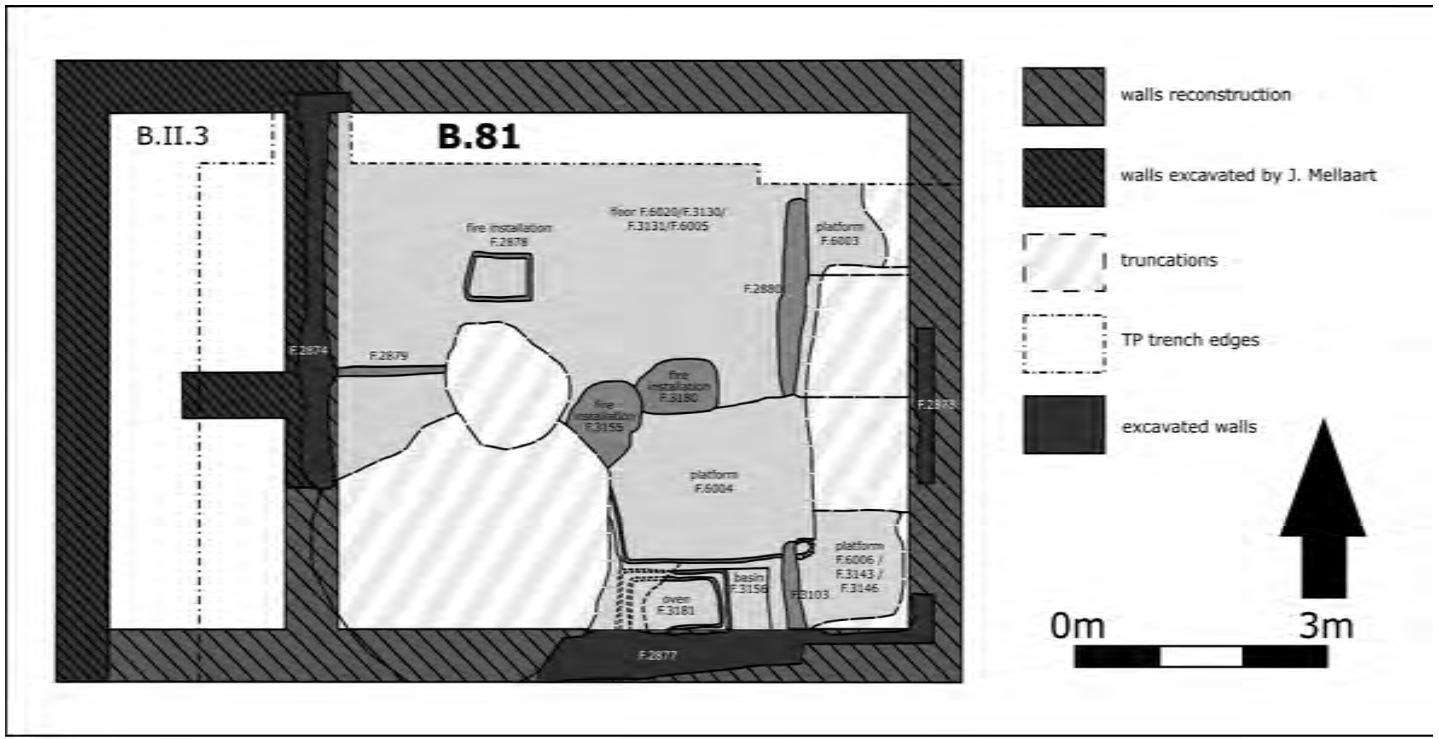

Fig. 8. Çatalhöyük East. B. 81. Building layout. (Drawning by Jędrzej Hordecki.)

Fig. 9. Çatalhöyük East. B. 81, Sp. 440. Central–north part of the building with eastern platforms destroyed by later burial chamber Sp. 327. (Photograph by Andrzej Leszczewicz.)

An elaborate oven with a solid superstructure was built against the southern wall. It was rectangular in shape and was made of two parallel walls, each ca. 7 cm thick. The base was solidly built and had a smooth outer surface ca. 1 cm thick. Next to the oven base, a special deposit in the form of pit with a vessel was placed, in addition to the base of a ladder. A solid, oval fire installation was also built against the centrally placed platform. Two partition walls were set to distinguish a small basin sitting against the southern wall of the house with an elaborate southern oven. It was certainly constructed after both the partition walls and the basin had been constructed. A short north–south partition wall (the preserved length = 2.46 m) was placed on the building floor against its northern wall and close to northeast of the wall.

Solid House without Distinct Floors

The abandonment of the late classic building was followed by the construction of solid multiroom houses with no distinct floors and without burials beneath the platforms and floors. This type of structure appears in TP-N level and is represented by B. 74 in the TP Area and by B. 110, B. 152, and and Sp. 520 in the TPC Area.

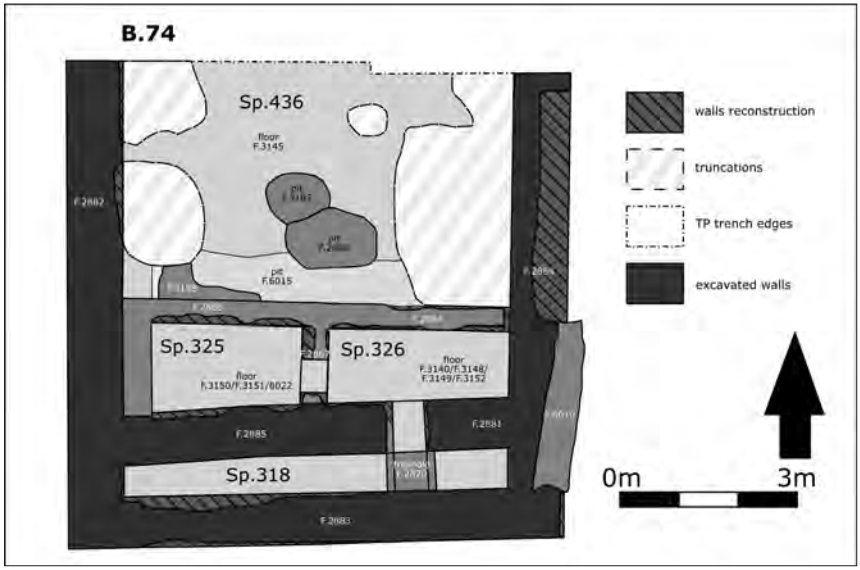

Fig. 10. Çatalhöyük East. B. 74. Building layout. (Drawing by Jędrzej Hordecki.)

The houses of this type were built either on a midden or on in-fill deposits following a partial destruction of the preceding structures. They had solid, well-preserved walls that were bonded with one other, indicating the contemporaneity of the construction of their constituent parts. The house was ca. 50–70 m^2 in size and was composed of two to four distinct rooms. In most cases, floors were difficult to detect, which means that they either did not exist or were completely destroyed.

B. 74 is an exemplary case of this type of dwelling structure (fig. 10). It had compound walls of ca. 0.9 m in width with alternating courses of stretchers and headers. It was made of brown, yellowish mud bricks with standardized dimensions. Its area inside the trench was ca. 47 m^2 (Barański, Garcia-Suarez et al. 2015). It had two distinct rooms at the beginning of its use. Its main northern part was originally set to be one elongated space with a doorway at the floor level leading from a small room of ca. 4 m^2 in the southern part of the building. It was devoid of any features except for a narrow eastern platform. No floor was distinguished in either of the rooms.

Two additional rooms (Space 325 and 326) were added during later reconstruction of the house by inserting them into its south-central part, directly north of the elongated southern room. They had a regular rectangular shape measuring ca. 2.5 m east–west and 1.50 m north–south. Their floors were of solid, fine construction with abundant plastering on a sequence of make-up layers. Neither platforms, benches, fire installations, nor bins have been constructed. An interesting construction feature is the small buttresses that were placed against their

Fig. 11. Çatalhöyük East. B. 74, Sp. 315. Abandonment deposit. (Photograph by Jason Quinlan.)

longer walls. They were made of mud bricks and arguably were associated with the roofing of both spaces. They might have been set up to hold beams placed against both walls, which themselves were set up to hold transverse beams holding the roof not only of both added rooms but of the entire building (Barański 2009: 89). During this phase of the house's use, the surface of the major room (Space 436) went out of use: it was truncated and later backfilled with a midden-like layer mixed with construction debris. The final phase of the house's use comprised a partition wall between Spaces 325 and 326 (F. 2887) with a crawl hole connecting them: this was later intentionally blocked off. The abandonment of the building involved a deliberate placement of cattle bones, including scapulae and rib in addition to a cluster of small stones (fig. 11). Following the abandonment, the interior of both rooms was deliberately backfilled with heterogeneous deposits containing a large number of small human bones and fragments of white pebble floor.

B. 110 from the TPC Area is another example of this type of dwelling structure (fig. 12). It has preserved dimensions ca. 8 × 6 m. The walls were made of solid yellow/sand-colored bricks. The eastern wall was constructed is the previously prepared foundation cut, a practice recognized also in the TP Area. The house was divided into two rooms by the east–west partition wall (Space 485 and 486; Marciniak, Filipowicz, and Mickel 2012; Marciniak et al. 2013). The floor has not

been reached, which may indicate that it either did not exist or was completely destroyed. Both rooms were filled in with a fairly homogenous sequence of ca. 1.30 m deep and composed of small striations indicating its long and continuous accumulation. Following the abandonment of Building 110, the area went out of use for some time. It was later reoccupied in the form of some kind of open space, as identified by a solid bricky layer with fragments of a tramped floor. Sometime later, the area went out of use and was transformed into a midden.

Light Dwelling Structure

The light dwelling structure is only represented by one structure, B. 72, from the TP Area, and is dated to TP-O level. The house was built within the interior of abandoned B. 74, respecting its external and internal walls. It appears to be composed of an open, unroofed space, possibly a courtyard, in its northern part and a hut-type construction with two rooms, with a light roof in its southern part. The courtyard was 22–25 m^2 large in different phases of its use. The open space was intensively used, as indicated by numerous hearths. The roof was supported by a number of posts in the perimeter. The size of the house within the trench was 47 m^2, however it's size might have differed in different phases of its occupation.

The house underwent three major reconstructions. In the first phase, it was mainly associated with the use of a large, open space in the north-central part of the building (Space 435), as manifested by numerous solid fire installations with well-preserved superstructures, including an oven. They were placed on a heterogeneous midden mixed with construction material. In the following phase, the intense use of the northern part, marked by new fire installations, continued, but the southern part underwent a major reconstruction. It involved the reuse of two rooms from the previous B. 74 in its central-southern part (Space 323 and 324) of total surface area of ca. 9.4 m^2. Their internal layout was very simple with no platforms, benches, bins, or other kinds of in-built features. The poorly preserved floors were made of a thin grayish plaster. Three deep postholes were placed against the southern wall of both rooms, which may have been used to support some kind of a light roof over this part of the building (fig. 13). An elongated room (Space 428) was in use along the southern wall of B72, directly south of Spaces 323 and 324. It was constructed directly above Space 318 from B74. These two rooms were connected by a wide doorway in a double partition wall. This southernmost room had a solid tramped surface/floor. It was clearly discontinuous as not all deposits were preserved. Three deep postholes were placed against the southern and northern walls of Space 428. These were identical to postholes from two adjacent rooms directly to the north and may also have been used to support a light roofing. Transversely placed bricks, making some sort of a partition wall, were aimed at dividing the room into two parts. This development clearly marks a later reconstruction of the room, associated with the final phase

Fig. 12. Çatalhöyük East. B. 110, Sp. 486. House fragment. (Photograph by Jason Quinlan.)

of its use. The abandonment practice did not involve a deliberate backfilling of the house interior space.

Multiroom House

The latest type of the Late Neolithic dwelling structure at Çatalhöyük comprises a large and multiroom house. It is represented by five buildings: B. 61 and B. 62 in the TP Area and B. 109, 115, and 133 in the TPC Area. They come from the two final Late Neolithic TP-Q and TP-R levels. They were built directly on top of the midden and infill layers from the preceding period. These houses were composed of a large main room with central hearth and were usually surrounded by multiple smaller rooms and annexes. They have street-level exterior entrances, which, in tandem with the emergence of streets and passageways, made the houses more easily accessible than in the classic period.

The best preserved examples of this type of house are B. 61 and B. 62 from the TP Area. They were distinguished as two separate buildings but considering the significant similarities between them, may in fact have been two major reconstructions of one dwelling structure. B. 62 was built on top of midden and rubble layers from the preceding level and has an overall surface of ca. 70 m^2 (fig. 14). A solid platform was placed against its eastern wall as well as a few built-in structures. It lacked intramural burials. The central placed hearth and oven were constructed directly above fire installations from the preceding open space area (B.73), indicating a continuous use of the space and its spatial division. The build-

Fig. 13. Çatalhöyük East. B. 72, Sp. 428. Side room with postholes. (Photograph by Jason Quinlan.)

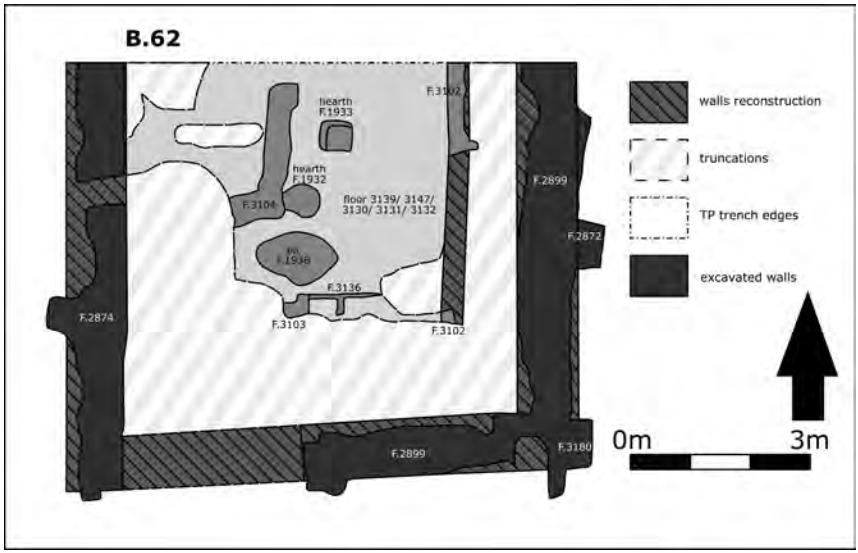

Fig. 14. Çatalhöyük East. B. 62, Building layout. (Drawing by Jędrzej Hordecki.)

Fig. 15. Çatalhöyük East. B. 61, Sp. 438, Main room. (Photograph by Jason Quinlan.)

ing underwent numerous reconstructions, as indicated by a complex sequence of floors and partition walls.

The following B. 61 largely resembled its predecessor (fig. 15). It had only a few built-in structures. A solid square oven was placed in its central part and was built directly above the oven from the older house B.62. It was also intensively used and modified a number of times, as indicated by a complex sequence of floors and partition walls, which were particularly evident in its western room (Space 438). The latest floor had a very distinct character: it was built on a basal layer made of destroyed construction debris followed by a layer of pebbles enclosed by a calcareous mass. In this occupational phase, the internal space of the house was divided into smaller rooms by partition walls.

The exact function of the eastern room of the house (Space 434) is debatable. It was a rectangular construction with the dimension within the trench of 3.60 m × 1.60 m. Fragments of the compact gray silty floor have been identified in the room's central part. No in-built features were present on the room's floor.

B. 133 from TPC Area is also a representative example of this type of construction. It was composed of three rooms, most likely surrounding some kind of a large room. It had few in-built structures. Details of its construction are difficult to reconstruct due to considerable destruction by the post-Neolithic occupation.

Two other houses of this type from the TPC Area were equally destroyed. B. 115 was only preserved in the form of a small fragment of unspecified platform.

It was placed directly on the midden and the following make-up layer was made of small pebbles. The outer surface was a whitish plaster. This construction is almost identical to the latest floor of B. 61. It had two distinct superimposed floors. A fragment of a short east–west-oriented partition wall was discovered east of the "platform." The latest dwelling structure in the Area was B. 109. It probably respected both the size and layout of B.110 from TP-N level. The walls were made of poor-quality grayish/beige bricks of a standardized length of 80–82 cm.

Chronology and Duration of Occupation

As of today, seventy-nine radiocarbon measurements are available from the Late Neolithic deposits, including fifty-six from the TP Area and twenty-three from the TPC Area. Radiocarbon dates available to date from the TP Area are very homogenous and date the Late Neolithic sequence in area between ca. 6300 and 5950 cal BC. The currently available dates from the TPC Area are very similar and are in the range of ca. 6400 to 6100 cal BC. As the TPC Area is situated on a slope, the absence of the latest levels is most likely caused by erosion and natural processes in addition to considerable destruction resulting from post-Neolithic activities rather than by the earlier abandonment of this area compared with the TP Area. There is certainly an overlap between the uppermost levels in the south sequence and the lowest levels in the TPC Area with TP-M corresponding with South S and TP-N with South T levels (see, e.g., Regan 2013).

The radiocarbon dating for Çatalhöyük East is conceived within a Bayesian statistical framework (see Bayliss, Farid, and Higham 2013). This allows its chronology to be estimated, using an explicit statistical methodology, from both the radiocarbon dates and the sequence revealed by archaeological excavation. The Bayesian chronological model for the TP Area has already been completed (Marciniak, Barański et al. 2015) while the corresponding model for the TPC Area is in preparation. Hence, a systematic comparison of the chronology of subsequent levels in both areas, along with corresponding architecture, cannot be carried out reliably at the moment. However, a range of dates from each of the house types in the TPC Area makes it possible to draw some parallels with the TP Area sequence recognized within the Bayesian chronological model.

Results of Bayesian modelling of TP sequence indicate that B. 81 was abandoned and became a midden area in 6375–6255 cal BC (95% probability). Because of incomplete excavation, neither building construction nor its earliest phase of occupation was recognized. The range of dates from late classic buildings from the TPC Area are between 6450 and 6250 cal B. (95.4%).

The corresponding results for the second type of house show that B. 74 occupation be dated to the end of the sixty-fourth and beginning of the sixty-third centuries BC and was used for only one to thirty years (use B.74; 95% prob-

ability), which is a very short time for such a solid construction. Existing dates for similar structures in the TPC Area seem to confirm the TP dates as they are within the range of 6350–6250 cal BC.

The light dwelling structure is only represented by B. 72 from the TP Area. It had been in use for 30–155 years (95% probability) and was abandoned in 6230–6160 cal BC (95% probability). No corresponding structures were recognized in the TPC Area. Following abandonment of the light dwelling structure in the TP Area, the area was devoid of any houses, it was turned into the midden area, which was continuously used for a period of 5–65 years (95% probability). A similar discontinuity in permanent occupation was also recognized in the TPC Area.

Multiroom houses from TP-Q and TP-R levels comprised the final type of the Late Neolithic house at Çatalhöyük. B. 62 was constructed in 6170–6100 cal BC (95% probability) and was in use for a period of only one to thirty years (95% probability). The succeeding B.61 was constructed in 6155–6090 cal BC (95% probability) and was abandoned in 6095–6020 cal BC (95% probability). The existing dates from multiroom houses from the TPC Area place them in a similar period between 6220 and 6070 cal BC (95.4%; Marciniak, Barański et al. 2015).

Changes to the Late Neolithic House in Broader Perspective: Final Remarks

The ongoing work on the Late Neolithic strata at Çatalhöyük reveal a gradual reduction of the house to its living functions and the marked removal of burials and elaborate symbolism out of its realm. Despite many changes in the organization of space and character of the Late Neolithic houses, they have also some striking similarities. This is manifested in their sheer size, inserting smaller rooms into existing larger structures as well as a lack of intramural burials and monumental installations. Many of them had floors built on a clay-silt make-up with numerous small pebbles. The walls in houses from levels TP-O to TP-R were not preserved, implying a lack of the deliberate in-filling customary throughout most of the Çatalhöyük sequence. These types of houses, except for late classic buildings, had a very few in-built structures, most often different fire installations. They were no longer accessed through the roofs but via door openings and they were surrounded by different kinds of passageways and courtyards.

The availability of dozens of radiocarbon dates from both areas as well as the application of the Bayesian statistical framework make it possible to provide a precise calendrical chronology for the Late Neolithic deposits in the TP Area of Çatalhöyük East. The reported dynamic changes in the site architecture and space organization began somewhere in the sixty-fourth century BC and continued over a period of more than three hundred years. They are recognizable

in both the TP and TPC Areas. A number of contemporary houses are located at subsequently lower levels moving southwards along the slope, which may be indicative of some kind of terracing respecting the shape of the mound. This pattern is particularly distinguishable in TP-M level from the TPC Area with subsequent contemporary houses B. 121, B. 150, B. 122, and B. 166 being built on the slope. The TPC Area appears to be abandoned ca. 100 years earlier than the corresponding TP Area but this well may be due to a slope erosion.

It has long been argued that changes around ca. 6500–6400 cal BC signal the beginning of a new social, economic, and religious organization of the local community (e.g., Mellaart 1967; Hodder 2006, 2014). The developments in subsequent centuries, as recognized in both TP and TPC Areas, can be seen as a continuation of these processes. These involved changes in major constituent phenomena of the Neolithic Revolution, manifested in the emergence of individualized and autonomous social units and an integrated arable-husbandry economy. These created conditions for strengthening and consolidating local groups and provided prerequisite foundations for their spread across vast areas (Marciniak 2015a, 2015b).

Paradoxically, these transformative processes led ultimately to the demise of the settlement at Çatalhöyük. Its inhabitants became deeply immersed in the bygone world of their Early Neolithic ancestors and, occupying a surface of the increasingly amorphous mound, soon found themselves lagging behind the dynamically developing region. The way of life remained rather conservative, maintaining the traditional forms of living and not adopting a suite of rapidly emerging developments, such as stone architecture technologies and stylistics of pottery production, including S-profiled vessels and vessel painting, as well as continuous exploitation of wild cattle in nondomestic settings (Özdöl Kutlu et. al. 2015). With the abandonment of the final type of house at the beginning of the sixth millennium cal BC, the settlement on the East mound at Çatalhöyük came to an end.

These processes led the local community to shrink and slowly abandon different parts of the previously large settlement. The northern part of the mound went out of use around 6400–6300 cal. BC decreasing the size of the settlement by ca. 30 per cent. The period around 6250/6200 cal BC brought about further abandonment of subsequent parts of the settlement, which may have been caused by migration of a large portion of its inhabitants starting around the middle of the seventh millennium cal BC. The number of inhabitants may have become even smaller after 6100 cal BC when B. 62 was constructed and all parts of the settlement except for the uppermost sections of the southern eminence of the East mound were abandoned.

This brief overview of major changes in architecture and inhabited space in the Late Neolithic at Çatalhöyük presented in this chapter gives some insight into

the rapid changes in the second half of the seventh millennium BC. They may have been linked with the process leading to the emergence of individual farmsteads controlling storage and production. As proven by the analysis of a range of bioarchaeological data, they appeared to become self-sufficient, shorter term, and more focused on consumption and the control of production (Souvatzi 2008) and increasingly more efficient in managing their own resources and interrelations. Inhabitants of the emerging households had to accommodate the higher level of managerial and organizational skills in arable and husbandry-related activities. This increased autonomy of the household, along with the dominance of a domestic mode of production and consumption, contributed to a durable and successful economy in which crop and livestock husbandry were closely integrated and intensively managed.

The increasingly more pronounced household ownership and autonomy may itself be linked to more intensive use of animals and plants. The ultimate outcome of these processes, as revealed by anthracological studies, were riparian woodlands around the settlement being converted into completely managed and distinctly anthropogenic habitats. Late Neolithic farmers at Çatalhöyük started to exploit diverse resources of poorer quality closer to the settlement instead of the exploitation of high-quality resources from selected parts of landscape in the preceding period. It involved a shift to summer herding in areas adjacent to settlement at the expense of longer-distance herding and emerging of the practice of keeping animals in the house compound during winter facilitated by easier access to fodder. The wood procurement strategy changed completely towards the end of the Çatalhöyük occupation. The significance of oak and juniper declined radically and they were replaced by the narrow range of riparian taxa including elm, ash, hackberry, and *Salicaceae*. This may represent the switch of wood-gathering activities from the surrounding uplands to the locally available riparian vegetation. Long-distance trips aimed at procuring these resources were abandoned (e.g., Henton 2012; Marciniak 2015a; Marciniak, Asouti et al. 2015).

The discussed changes in the Late Neolithic changes may have been triggered by the abrupt climatic event that occurred at approximately 6200 years cal BC. The local farmers may have experienced difficulties in herding domesticates and they had to demonstrate resilience and adaptability to new ecosystems. The local climate proxy obtained through the δ2H analyses of fatty acids from animal fats preserved in pottery vessels from the Neolithic site of Çatalhöyük tends to indicate a change in climate coincident with the 8.2 kyr BP abrupt event (Roffet-Salque et al. 2018).

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