# Tilbes, Surtepe and Tilvez Mounds: An Approach about the Early Bronze Ia-Ib phases, north of Birecik-Carchemish subregion (Southeastern Turkey)

Los tells de Tilbes, Surtepe y Tilvez: una aproximación a las fases del Bronce Antiguo la-lb en la subregión del norte de Birecik-Carchemish (Sureste de Turquía)

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## Summary

The Early Bronze (EB) I culture in the Turkish Middle Euphrates is of particular importance to our Tilbes Project. Such an archaeological period was discovered in three of the archaeological sites under our supervision. We have been able to differentiate two different moments in the character of the occupation during this Early Bronze Age I, Phases Ia and Ib. The EB Ia phase is characterized by a large urbanization and extensive settlement of the places of Surtepe Höyük, Tilvez/Meteler Höyük and Tilbes Höyük. However, the EB Ib phase, which seems to have continued in at least two of the places, Surtepe and Tilbes Höyük, does not present large remains of monumental architecture and does show an increase in funerary remains in both places. Tilbes Höyük also had, during EB Ia-b, a building with ritual-religious characteristics, built in the same place that was later occupied by BA II and BA III sanctuaries in sector E4a-E8-E3. This area of Birecik is included in the ceramic province of the Late Reserved Slip Ware and indicates a change of orientation of Tilbes and Surtepe towards the Northern Levant, the region of the future kingdom of Ebla, as opposed to the route of the Euphrates, dominant during the Late Chalcolithic.

Key words: Early Bronze I, First urban centers, Birecik-Carchemish, Tilbes, Surtepe, Turkish Euphrates

## Resumen

La cultura del Bronce Antiguo I en el Éufrates Medio turco reviste una especial importancia para nuestro Proyecto Tilbes. Tal período arqueológico fue descubierto en tres de los lugares arqueológicos que hemos excavado. Hemos podido diferenciar dos momentos diferentes en el carácter de la ocupación durante este Bronce Antiguo I. La fase BA la se caracteriza por la urbanización y poblamiento extenso de los lugares de Surtepe Höyük, Tilvez/ Meteler Höyük y Tilbes Höyük. Sin embargo, la fase BA lb, que parece haber tenido continuidad en al menos dos de los lugares, Surtepe y Tilbes Höyük, no presenta grandes restos de arquitectura monumental y si un incremento de los restos funerarios en ambos lugares. Tilbes Höyük contó además, durante el BA la-b, con un

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edificio, de características rituales-religiosas, construido en el mismo lugar que posteriormente ocuparon santuarios del BA II y BA III en el sector E4a-E8-E3. El área de Birecik se incluye en la provincia cerámica con engobe reservado tardía e indica un cambio de orientación de Tilbes y Surtepe hacia el Levante Septentrional, la región del futuro reino de Ebla, en contraposición a la ruta del Éufrates, dominante durante el Calcolítico Final.

Palabras clave: Bronce Antiguo I, primeros centros urbanos, Birecik-Karkemish, Tilbes, Surtepe, Éufrates turco

### Резюме

Культура ранней бронзы (EB) I в турецком Среднем Евфрате имеет особое значение для нашего проекта Тильбес. Такой археологический период был обнаружен на трех археологических памятниках, находящихся под нашим наблюдением. Нам удалось выделить два разных момента в характере оккупации во время раннего бронзового века I, фазы Iа и Ib. Фаза EB Ia характеризуется большой урбанизацией и обширным заселением мест Суртепе Хёюк, Тилвез/Метелер Хёюк и Тильбес Хёюк. Однако фаза EB Ib, которая, по-видимому, продолжалась по крайней мере в двух местах, Суртепе и Тильбес-Хойюк, не представляет больших остатков монументальной архитектуры и действительно показывает увеличение погребальных останков в обоих местах. Тильбес-Хойюк также имел во время EB Ia-b здание с ритуально-религиозными характеристиками, построенное на том же месте, которое позже было занято святилищами BA II и BA III в секторе Е4аE8E3. Этот район Биреджика входит в керамическую провинцию поздней зарезервированной керамической посуды и указывает на изменение ориентации Тильбеса и Суртепе в сторону Северного Леванта, региона будущего царства Эбла, в отличие от пути Евфрата, господствующего во времена позднего энеолита.

**Ключевые слова:** Ранняя бронза I, Первые городские центры, Биречик-Каркемыш, Тильбес, Сюртепе, Турецкий Евфрат

 Introduction: The dawn of the EBA in the Birecik-Carchemish area (Southeastern Turkey) and the evidence after the Tilbes project

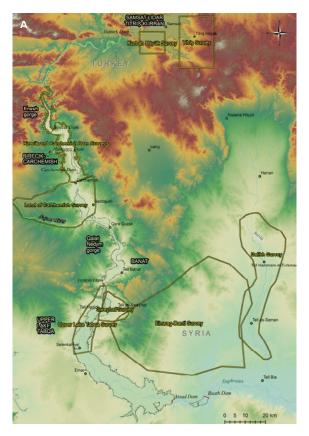
The region of the Turkish Euphrates constitutes one of the main points where the first agrarian communities, cities and states of the Mesopotamian region arose. Here we offer the perspective on the distinctiveness of the birth of the Bronze Age period in a sub-region of northern Mesopotamia, Birecik-Carchemish, located on the Middle Turkish Euphrates, just south of the mountains of the southeast of the country and itself bordering the Syrian Euphrates. In the Birecik area, various archaeological sites have been investigated, which present the immediate phases after the end of the expansion of the Uruk culture, the Early Bronze I (Ökse, 2011: 265 table 11.2). The period following the Uruk Expansion at the end of the 4th millennium BC has traditionally been interpreted as a period of collapse in regions peripheral to the presumed core of southern Mesopotamia.

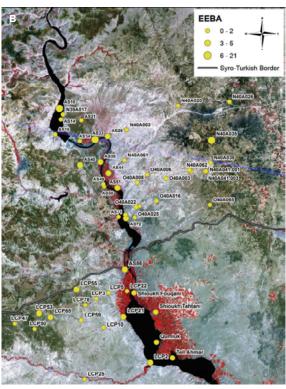
In geographical terms, the Birecik-Carchemish region establishes the proper end of the so-called Mesopotamia, since after Tilbes Höyük, the landscape

ceases to be flat, and it is when the river increases its meanders and gradually the area acquires a smooth mountainous appearance.

This area has a contiguous fluvial area to the north, well known thanks to the excavations started in the Upper Turkish Euphrates, over four decades ago, as a result of the GAP Dam Project (Southeastern Anatolia Project), through which and in a first instance the ancient places of the Karababa/Karakaya Dams (such as Korucutepe, Tepecik and Norshuntepe) were investigated, to do so a little later with those of the Atatürk dam, such as Hassek Höyük (Gerber, 2005), Samsat (Özgüç, 1992) or Kurban Höyük (Algaze, 1990); the first archaeological sites on the Turkish Euphrates located in mountainous areas.

The occupation strategy at the end of the Late Chalcolithic (LC), a local archaeological period in whose middle and final phases the Uruk culture of Northern Mesopotamia is located, as we will see, is revealed to be very similar to the situation in the region of the Atatürk Dam, to the north from the province of Urfa (where Birecik), and bordering the mountainous province of Adiyaman. The places in the area are located either on top of hills, controlling the river, or on low terraces that bordered the river.





Prior to these archaeological excavations in the region, the American team led by G. Algaze revealed a large concentration of materials after

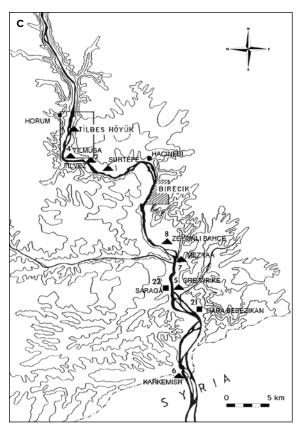


Figure 1. A. Map of the Middle Euphrates with the surveys in the Birecik and Carchemish Dams and major Early Bronze Age sites (Wilkinson et al., 2012: 141 fig. 1). B. Map of the Middle Euphrates with the Birecik-Carchemish Dam surveys and EBA I-III sites (Wilkinson et al., 2012: 162, fig. 1u). C. Map of the Middle Euphrates with Horum, Tilbes, Tilvez, Surtepe, Hacinebi and Zeytinli Bahçe (based on drawing by Ben C. Cookson/MAET)

Figura 1. A. Mapa del Éufrates Medio con las prospecciones en las presas de Birecik y Carchemish y los principales yacimientos de la Edad de Bronce Antiguo (Wilkinson et alii, 2012: 141 fig. 1). B. Mapa del Éufrates medio con las prospecciones de la presa Birecik-Carchemish y yacimientos del Bronce Antiguo I-III (Wilkinson et alii, 2012: 162, fig. 17). C. Mapa del Éufrates medio con Horum, Tilbes, Tilvez, Surtepe, Hacinebi y Zeytinli Bahçe (a partir del dibujo de Ben C. Cookson/MAET)

the end of the Uruk culture between the areas of Carchemish (Turkey) and the Tabqa dam (Syrian Euphrates) (Algaze, Brueninger and Knudstad, 1994; Kepinski, 2007; Marchetti, 2014).

This small region of Birecik-Carchemish, with around 80 km<sup>2</sup>, is identified by archaeological sites, höyük, with very smooth extensions, and which tend to be small (and less than 6 ha) (Wilkinson et al., 2007: 217-218; 2012: 144, table 2), with the exception of Carchemish (42 ha), Tiladir Tepe (12.2 ha) and Surtepe (12 ha), mounds whose dimensions exceed 8 ha (figure 1a-b).

North of Birecik is a valley in V; and Tilbes Höyük is in the middle course. It is also a distended basin, and accumulations of materials are very easy. On the Tilbes Höyük shore there was an accumulation of sediments (here on the left the river is narrower), with an alluvial plain very fertile for agriculture. On the left bank there are apparently no clayey outcrops; it was guessed how the river would cross, and apparently the stream got it from somewhere other than the river (behind Horum Höyük, right bank of the river, just front of Tilbes). Therefore, the ceramic pastes from Horum (Marro, 2007) and Tilbes would seem identical, except for the imports.

The material of the hills is calcareous; which can be seen in the stones of the excavated buildings. In other hills located on the right knoll of the river, marls can be seen. Margo-limestone, but as a less compact material, which would serve as a conglomerate. In the local ceramic pastes you can see sandstone and crushed limestone, especially a lot of granite.

Here we offer a detail of what the Middle Turkish Euphrates meant for a serie of archaeological sites located north of the modern city of Birecik (Urfa province), and where took place the Birecik dam salvage project, Project Tilbes, focused in the 4<sup>th</sup> and 3<sup>rd</sup> millennia BC, the local epoch of the Late Chalcolithic and Early Bronze.

During the late 20<sup>th</sup> century and the first decade of the 21<sup>st</sup> century, our field efforts on the emergence of urbanism and the state focused in part on the Birecik and Carchemish dams, with places like Tilbes Höyük and Surtepe.

Fieldwork yielded EB I levels at three locations in the Birecik dam area: Tilbes Höyük (1996-99), Tilvez/Meteler (1997-99) and Surtepe (2000-09), directed by J. Gil Fuensanta; Tilbes Höyük was flooded by the Birecik reservoir in the middle of the year 2000 (Marchetti et al., 2020: 31, fig. 1, 35, table 2, 36).

Few places have been located in the area and that strictly present external elements of the preceding "Uruk culture"; this is a fact that could be interpreted as the cause of a decrease in the population in the area in the middle of the 4<sup>th</sup> millennium. Sites with Uruk materials seem to cluster always around a

centre, both in the Birecik area and in Carchemish. But nevertheless, at the beginning of the EB I culture there was an expand in the number of places in this sub-region (Gil Fuensanta, 2007), a greater augment than any of the phases of the Late Chalcolithic.

Carchemish was undoubtedly a major regional centre for the southern sector of the Birecik-Carchemish sub-region during the post-Late Uruk period (end of 4<sup>th</sup> millennium). Perhaps it formed a dipolis, twin city, next to Tiladir Tepe, which is located just opposite Carchemish, across the shore.

For the other segment of the sub-region, however, we focus on the sector to the north of the modern city of Birecik, in order to delimit a likely Early Bronze centre during the 3<sup>rd</sup> millennium.

In those late 1990s, when salvage archaeological excavations were carried out in the Birecik dam area (Urfa, south-eastern Turkey), huge deposits of all Early Bronze phases (I-IV) were discovered in Tilbes Höyük, on the left bank of the Euphrates River, which we originally assume was a settlement with 3 ha, located on the left bank of the Euphrates River, at an ideal crossing point, due to its orography and narrowness. In addition to being a key point on the passage route, Tilbes would offer other attractions for visitors or merchants during the later Prehistory of the region. Early Bronze (EB) I levels were also discovered simultaneously at Tilvez/Meteler Höyük, 9 kilometres downstream.

Tilbes Höyük was during the first phase of the Tilbes Project, the focal point of this investigation, with which it is intended to recover vestiges in four other adjacent places on the left bank of the Euphrates north of the city of Birecik, which gives Dam name. The other places are, from north to south, Tilmusa/Apamea, Tilöbür, Tilvez and Surtepe, the largest of them all. Three of the sites, including Tilbes and ancient Apamea on the Euphrates, have been left within the area inundated by the lake formed by the Birecik dam.

Surtepe Höyük is situated at the foot of the Euphrates, opposite the rock-cut caves next to Belkis/Seleucia. Surtepe, like Tilbes, was an ideal point to cross the river during the Prehistory of the region. After Carchemish and even the missing Samsat/Samosata, Surtepe is the largest Turkish site





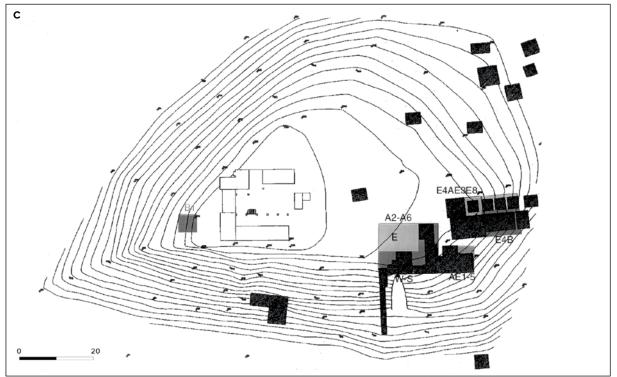


Figure 2. A-B. Panoramic view of Tilbes Höyük and the Euphrates river from Tilbes. C. Tilbes Höyük topographic plan, 1996-1999 campaigns

Figura 2. A-B. Vista panorámica de Tilbes Höyük y el río Éufrates desde Tilbes. C. Plano topográfico de Tilbes Höyük, campañas 1996-1999

in the region on the banks of the Euphrates, and due to its possibilities and stratigraphic depth it is key in our research on the formation of the Early States of the Mesopotamian region.

# 2. The transition LC 5-EB IA at Tilbes Höyük

Tilbes Höyük in pre-classical Antiquity had a much larger extension than it was during the excavations prior to its flooding, as Horum Höyük (Marro, 2007: 384), since the main mound was cut and eroded by the river on its western side. As of the date of the first excavations that we carried out in the second half of the 1990s, the limit of the höyük in the river sector corresponded to sectors that were actually closer to the centre of the place in times prior to the Middle Ages. Perhaps Tilbes Höyük was eroded in connection with the catastrophic flood of Apamea/Zeugma in the mid-4<sup>th</sup> century BC (Gil Fuensanta and Charvat, 2005). It means the probable destruction of its western half, the shore most exposed to the river. What we began to excavate in



Tilbes Höyük in 1996 in the sector of the river was not its original settlement margins, but rather an area more prone to be found in the middle of the original ancient site (figure 2a-c).

In July 1999, we continued to excavate below the already deep levels of EB I discovered in the AE1-5 survey, and found a level of Cyclopean stones that was uplifted sometime very early in EB I, in its first phase, immediate post-Uruk IV as the one discovered in the Surtepe Burnt Building of LC5 date.

The earliest phase of EB I in AEI-5 consists of Cyclopean stones that would create some sort of external wall of a building. Below lays the terminal phase of LC 5, as well identified in Surtepe. All the material found during this 1.5 m of post-LC 5 occupancy is different from the typical EB I found above, with presence of bevelled rim bowls and smaller spouted-jar lugs. The study of the ceramics suggests Uruk-Late Chalcolithic passage (as the most recent level it could be a transition to EB I); the chipped stones material — which appears in great quantity — also shows this technological transition (figure 3a-b).



Figure 3. A-B. Tilbes Höyük 1999, stratigraphy and deep sounding at AE1-5, earliest phase EBA I levels

Figura 3. A-B. Tilbes Höyük 1999, estratigrafía y sondeos profundos en AE1-5, niveles iniciales del Bronce Antiguo I.





Figure 4. A-B. Tilbes Höyük 1999, walls at E4B, earliest phase EBA I levels

Figura 4. A-B. Tilbes Höyük 1999, muros en E4B, niveles iniciales del Bronce Antiguo I

Another sector that provided great results to prove the move from the end of LC to EB I in Tilbes was the E4b-E2-E7-E10-EF1 Square which consists of some long and well-defined mudbrick walls. There we managed to reach the virgin levels of the höyuk, on which a post-Ubaid occupation (Gil Fuensanta, Mederos and Muminov, 2020) of the initial LC1/2 type settled. After a long hiatus of occupation that evidenced a riverine flood of silt close to two meters of stratigraphic depth, we were able to see a terminal phase of LC5 that connected, in a solution of continuity, with the first moments of the EB I phase, that was revealed very extensive on the höyük (Gil Fuensanta, 2007: 145) (figure 4a-b).

## 3. The EBA la-lb sanctuary at Tilbes Höyük

Between the years 1998-1999, the remains of a burnt religious building from Early Bronze III and the parts of other sanctuaries from previous phases (EB I and II) were documented at Tilbes Höyük. The original sanctuary, dated to Early Bronze I, according to analogous <sup>14</sup>C dates from University of Arizona Radiocarbon Laboratory (Gil Fuensanta et al., 2002: 135; Gil Fuensanta, 2007: 146, table 9.4), begins from the floor of the building, locus 1119, square E4b-E2-E7, AA 35.826, 4540±50 BP 3488 (3345) 3036 BC; mudbrick area, locus 5027, square E4b-E2-E7, AA 35.824, 4320±50 BP 3092 (2911)

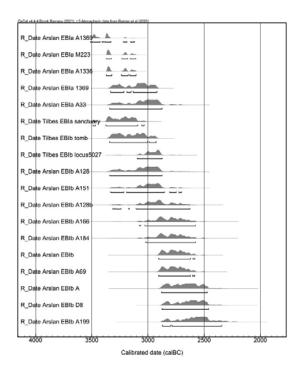


Figure 5. Early Bronze Age la-lb chronology in the Middle-Upper Euphrates. Arslantepe and Tilbes Höyük. OxCal 4.4

**Figura 5.** Cronología del Bronce Antiguo la-lb en el valle medio-alto del Éufrates. Arslantepe and Tilbes Höyük. OxCal 4.4

2876 BC and one EB I burial, locus 5023, square E4b-E2-E7, AA 35.827, 4450±50 BP 3340 (3096) 2929 BC, circa 3350-2900 BC. The sanctuary would be located in the centre of the höyük, and was erected on a mudbrick platform, presenting a possible access from the East, point of sunrise. It was only a portion of a much larger building, and with a precise orientation in the W-E axis. We have only excavated its east-ernmost portion, and it could have a bipartite internal division (table 1 and figure 5).

The sanctuary seems to have two different construction moments during EB I, which roughly correspond to the local EB Ia and EB Ib occupation phases. In the oldest phase, stone was mainly used for the walls. It was filled, in appearance with a ritual, late in EB I, with remains of ceramics and flint, as well with fragments of clay horns. There were no burned remains on the walls. As in later sanctuaries on the same place, there is a sort of bipartite division inside it, although this and its location have varied throughout history. There is even greater use of mudbricks in one room than in another. This sanctuary was a larger building that continued in the eastern

sector of the höyük, and the entire construction presumably stood on a solid mudbrick platform, which dominated the EB I buildings discovered along the excavations years in E4b-E2-E7-E10-EF1 Square of the mound. The stone walls were preserved with an average height of 1.20 m. The walls were made with consistent limestone of medium size. Outside, to the north and south, two pits were set up with later burials, of the EB Ib; the pits of the area during the period were not carved for waste, but entombments, and these never altered the walls or eroded them. The exposed area of the building was close to 65 square meters (figures 6a-b and 7).

The building had stone walls and a mudbrick altar with clay horns during Early Bronze I; near this building appeared unicorns or fragmented horns made in clay. It is striking that the sanctuary of Tilbes EB I hardly had any complete vessels inside, but fragmented, perhaps due to the nature of the ritual sealing with ceramic fragments, stone tools and rubble (figure 8a-b).

The wall building belongs to the beginning of the EB Ia phase, which is a direct transitional period from the Late Chalcolithic. The average dimensions of the large and rectangular bricks are standard, 40 × 28 cm. The rest of the bricks on the wall were smaller and seem to be pieces of other bricks made and accidentally broken before they were placed. This practice of reusing broken bricks before their assignment in the building was observed in the vernacular architecture of the region during the time of its excavation, at the end of the 20<sup>th</sup> century.

In the area adjacent to E4b-E2-E7-E10-EF1 square of Tilbes Höyük there are remains of at least two buildings, or large adjoining rooms, a cremation pit for possible metal processing, judging by the slag found, pits with figurine debris, and two mudbrick platforms of unknown use.

Another sanctuary, in a worse state of preservation (due to the materials used and a post-quem burning), was also documented on the same place, during Early Bronze II (Gil Fuensanta, Mederos and Muminov, 2019: 58, fig. 5a-b).

The "burnt building" from EB III and the remains of other buildings in the same place, from earlier (EB I and II) and later (EB IV) phases,





Figure 6. A-B. Tilbes Höyük 1999, EB la sanctuary, squares E4A-E3-E8

Figura 6. A-B. Tilbes Höyük 1999, santuario del Bronce Antiguo Ia, cortes E4A-E3-E8

with associated mortuary evidence, show a kind of "fertility" cult. The forensic analyses carried out by LaFUAM provided clues and alternative hypotheses about the burials of human infants, perhaps related to solid religious practices with a fertility cult (Gil Fuensanta, Mederos and Muminov, 2019: 59-61, fig. 9).

The ritual of burial of neonates, between 7 and 9 months old, deposited in pits outside the sanctuary area, perhaps linked to a cult of rebirth and fertility, is a practice that was maintained in the area of the

successive sanctuaries in the seven centuries following, until its abandonment during Middle Bronze II. These infant burials do not enclose grave goods in any of the excavated cases, and are placed usually outer and close up to the walls of the sanctuary.

We do not find any imports outside of the regional Middle Euphrates cultural koine in these finds from the late EBI. Only one ointment cup with decoration that refers to Ninivite V decoration motifs with reliefs, typical of the Khabur river area, was found in the vicinity of one of these burials.

Site	Municipality, Province, Region	B.P.	±	b.C.	max. cal. (2 δ)	median	min. cal. (2 δ)	Lab. nº & Sample
Arslantepe, EBIa, level VI B1, A1369	Orduzu, Malatya, Türkiye	4600	33	2650	3512 3499	3363	3122 3141	Circe-Naples- DSH-7047/wild fruit <i>Sorbus sp</i> .
Arslantepe, EBIa, level VI B1, M223	Orduzu, Malatya, Türkiye	4559	21	2609	3370 3365	3351	3108 3122	Circe-Naples- DSH-7017/C <i>Quercus</i>
Arslantepe, EBIa, level VI B1, A1336	Orduzu, Malatya, Türkiye	4552	21	2602	3368 3363	3349	3106 3105	Circe-Naples- DSH-7017/C <i>Quercus</i>
Arslantepe, EBIa, level VI B1, A1369	Orduzu, Malatya, Türkiye	4428	45	2478	3332 3335	3083 3065 3032	2919 2916	Cedad-Salento LTL-16295A/wild fruit <i>Sorbus sp</i> .
Arslantepe, EBIa, level VI B1, C8 (11-15) A33	Orduzu, Malatya, Türkiye	4360	50	2410	3310 3255	2921	2886 2884	Roma-1009/C
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A128	Orduzu, Malatya, Türkiye	4360	80	2410	3339 3335	2921	2787 2876	Roma-1482α
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A151	Orduzu, Malatya, Türkiye	4330	80	2380	3334 3311	2916	2698 2704	Roma-1491
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A128	Orduzu, Malatya, Türkiye	4290	80	2340	3316 3096	2898	2626 2641	Roma-1482
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A166	Orduzu, Malatya, Türkiye	4240	80	2290	3073 3075	2882	2578 2582	Roma-1494
Arslantepe, EBIb, level VI B2, SW Area Building V A184	Orduzu, Malatya, Türkiye	4230	80	2280	3017 3018	2880	2577 2580	Roma-1489
Arslantepe, EBIb, level VI B2,	Orduzu, Malatya, Türkiye	4195	60	2245	2906 2910	2875 2796 2792	2583 2581	Roma-750
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A69	Orduzu, Malatya, Türkiye	4190	60	2240	2903 2907	2873 2800 2784	2582 2580	Roma-1454
Arslantepe, EBIb, level VI B2	Orduzu, Malatya, Türkiye	4090	80	2140	2877 2883	2620 2609 2599 2586 2585	2471 2461	Roma-1493
Arslantepe, EBIb, level VI B2, D8 (1) pit	Orduzu, Malatya, Türkiye	4060	70	2110	2874 2876	2615 2578	2462 2459	Roma-163/W/M
Arslantepe, EBIb, level VI B2, A69-A73 Building VI-IX A199	Orduzu, Malatya, Türkiye	4030	80	2080	2872 2874	2568 2518 2499	2343 2311	Roma-1493α
Hassek Höyük, EBI,	Çaylarbaş, Türkiye	4470	70	2520	3359 3366	3259 3243 3099	2928 2915	KI-2961/C
Hassek Höyük, EBI, cellar	Çaylarbaş, Türkiye	4450	110	2500	3495 3499	3096	2884 2880	KI-2959/C
Hassek Höyük, EBI, pit	Çaylarbaş, Türkiye	4440	100	2490	3368 3491	3090 3057 3044	2893 2881	KI-2352/C
Hassek Höyük, EBI, pit	Çaylarbaş, Türkiye	4390	80	2440	3337 3349	3017 2977 2971 2947 2940	2891 2880	KI-2960/C
Titriş Höyük, EBla	Bahçeli, Türkiye	4560	70	2610	3515 3515	3352	3027 3028	TH-96.206

Site	Municipality, Province, Region	B.P.	±	b.C.	max. cal. (2 δ)	median	min. cal. (2 δ)	Lab. nº & Sample
Titriş Höyük, EBI	Bahçeli, Türkiye	4420	90	2470	3350 3364	3081 3068 3029	2902 2881	TH-96.076
Titriş Höyük, EBI	Bahçeli, Türkiye	4300	100	2350	3332 3328	2902	2624 2602	TH-96.098
Tilbes Höyük, EB la, square E4b-E2-E7, locus 1119, sanctuary, floor	Subaşi, Türkiye	4540	50	2590	3488 3491	3345	3036 3039	AA-35.826
Tilbes Höyük, EB lb, square E4b-E2-E7, locus 5023, tomb	Subaşi, Türkiye	4450	50	2500	3340 3349	3096	2929 2919	AA-35.827
Tilbes Höyük, EB lb late, square E4b- E2-E7, locus 5027, mudbrick area	Subaşi, Türkiye	4320	50	2370	3092 3082	2911	2876 2878	AA-35.824
Birecik, KA4, EB I, garbage pit	Birecik, Türkiye	4380	80	2430	3337 3346	3012 2983 2956 2954 2925	2885 2878	Beta-129.189/C
Birecik, KA4, EB I, garbage pit	Birecik, Türkiye	4310	70	2360	3319 3096	2906	2674 2704	Beta-129.190/C
Nevali Çori, EB lb, tomb 44	Kolik, Türkiye	4290	40	2340	3020 3008	2898	2779 2877	OxA-8233

Table 1. Early Bronze Age Ia-lb Chronology in the Middle Euphrates. Sources: Arslantepe: Alessio et al. (1976: 337-338), Alessio et al. (1983: 578-579), Calderoni et al. (1994: 147), Di Nocera (2000: 82), Palumbi et al. (2017: 118, table 4), Vignola et al. (2017: 168, table 1); Birecik: Deckers et al. (2015: 408, table 1); Hassek: Willkomm (1992: 136-137); Nevali: Becker (2007: 114). Tilbes: Gil Fuensanta et al. (2002: 135). Tilbeşar: Kepinski-Lecomte and Ergeç (1999: 246). Titriş: Algaze et al. (2001: 76). Intcal20 calibration curve according to Reimer et al. (2020), Bronk Ramsey OxCal 4.4 (2023), compared to the Intcal98 calibration curve, Calib v. 4.2 according to Stuiver et a. (1998)

Tabla 1. Cronología del Bronce Antiguo la-lb en el Éufrates Medio. Fuentes: Arslantepe: Alessio et alii (1976: 337-338), Alessio et alii (1983: 578-579), Calderoni et alii (1994: 147), Di Nocera (2000: 82), Palumbi et alii (2017: 118, table 4), Vignola et alii (2017: 168, tabla 1); Birecik: Deckers et alii (2015: 408, tabla 1); Hassek: Willkomm (1992: 136-137); Nevali: Becker (2007: 114). Tilbes: Gil Fuensanta et alii (2002: 135). Tilbeşar: Kepinski-Lecomte y Ergeç (1999: 246). Titriş: Algaze et alii (2001: 76). Curva de calibración Intcal2o según Reimer et alii (2020), Bronk Ramsey OxCal 4.4 (2023), comparada con la curva de calibración Intcal98, Calib v. 4.2 según Stuiver et alii (1998)



Figure 7. Tilbes Höyük 1999, EB lb sanctuary, squares E4A-E3-E8

Figura 7. Tilbes Höyük 1999, santuario del Bronce Antiguo Ia, cortes E4A-E3-E8





Figure 8. A-B. Tilbes Höyük 1998-1999, fragmented clay horns or unicorns from the EB I and III sanctuary

**Figura 8.** A-B. Tilbes Höyük 1998-1999, cuernos de arcilla fragmentados o unicornios, santuario del Bronce Antiguo I y III

Those discoveries of the early 3<sup>rd</sup> millennium sanctuaries of Tilbes do not seem to be restricted to a local phenomenon of the time in southeastern Turkey, but are present in other regions with a similar date. The best parallels are Arslantepe VIB temple B, 3000-2800 BC, construction that was part of a larger complex, Building IV (Frangipane, 1997: 53, 54-55, fig. 5a-b, 58, fig. 7) and Beycesultan level XIV sanctuary (Lloyd and Mellaart, 1958: 101, 106, pl. 20a; 1962: 49-52, fig. 17-20), EB IIb from Western Anatolia, 2500-2400 BC.

## 4. The EBA I tombs of Tilbes Höyük

AEI-5 Square provided a single cist burial, locus 2II9, but with poor contents. Another tomb in square E4a-E3-E8 was deposited in a large pit and contained three bronze needles, necklace beads, and 33 ceramic vessels from the period (Gil Fuensanta et al., 2002: 135, 140, fig. 6).

In E4b-E2-E7-E10-EF1 Squares, a tomb from the EB Ib phase, locus 10031, was covered with a large limestone weighing half a ton, which kept it sealed. Once excavated, we figured out that the tomb was covered with two large slabs with a diameter close to 1 m. The flagstones went in a west-east direction, like the wall. The vault was not very deep, about half a meter from the placement of the upper slabs. It was surrounded by a series of rectangular limestone slabs arranged vertically to form a chamber. On its west side there was also a series of stones that acted as support to prevent the slabs from giving way. Inside, a series of 7 intact vases were found, in clear plain simple ware ceramic from the Nord Mesopotamian tradition of EB I, where a globular jug and several goblets-chalices stand out; they were deposited at the same time as the buried individual. The tomb was not foreseen when the adjoining architecture of EB Ia existed, but the original excavators of the tomb were aware of the existence of the large mudbrick wall, locus 10026, which was built in a west-east direction; the wall bricks were placed with rope and brand. The custodians of the tomb placed the remains of goat antlers, and some beads, next to the dead man, which was dismembered in his original deposition (figures 9a-d, and 10).

The oldest tomb found with EB Ib date would be this one of the large slabs, judging by the stratigraphy. The ceramics from the big slabs EB Ib tomb of E4b-E2-E7-E10-EF1 Square, locus 10031, consist in a few reddish and yellowish handmade and wheel-turned pedestal bowls and chalices, with fine parallel grooves, and one ovoid jar, with bands of fine parallel grooves divergent (figure 11a-c).

However, it contrasts with the adult burials of the same phase EB Ib of Tilbes Höyük when there were tombs plenty of ceramics, regularly plain simple and wheel made, but always from the Northern





**Figure 9.** A-D. Tilbes Höyük 1999, EB lb tomb covered with large limestone and adjoining EB la mudbrick wall, square E4B, locus 10031

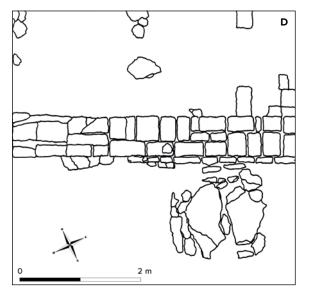
**Figura 9.** A-D. Tilbes Höyük 1999, tumba del BA lb cubierta con grandes piedras de arenisca y muro de adobe anexo del BA la, corte E4B, *locus* 10031



**Figure 10.** Tilbes Höyük 1999, EB lb tomb with 7 vases as goblets chalices and a globular jug, square E4B.

**Figura 10.** Tilbes Höyük 1999, tumba del BA lb con 7 vasos completos como copas y una jarra globular, corte E4B





Mesopotamian tradition, and other artefacts, including metal objects, mostly bronze needles, sometimes associated with a single individual. But these deceased adults (mostly male) were located meters away and at different heights from the sanctuary of E4a-E3-E8 Square; a proof that those personage tombs were not planned contemporaneously with the construction of the building.

The late EB I entombed personages were likely members of the local elite individuals, implying a provided work from a number of artisans crafting the burial artefacts and individuals carrying the heavy stones (half a ton in the case of the tomb 10031) that covered some of the late EB I period burials at Tilbes Höyük.

There is a typological variety in the burials from North Birecik during the EB I; the burials appear there in a pit, in a well or in a chamber. But in Tilbes Höyük this diversity is also noticeable and they tend to be individual burials. The grave goods are varied, with a predominance of ceramic vessels, typical for food and drink, medium and small dimensions, never large containers, as well as metal, copper or bronze objects and necklace beads. The Tilbes Höyük tombs show common features with those discovered on the other bank of the river, and located several kilometres to the south, with 312 burials, mostly cist graves, but also 13 pithoi for infant burials (Sertok and Ergeç, 1999: 87, 89-90, 99-100, figs. 2-3, 102, fig. 6). In the Birecik Dam Cemetery pins are the most common metal artifacts (Sertok and Ergeç, 1999: 93, 105, fig. 9a-d), but also the spearheads (Sertok and Ergeç, 1999: 93, 106, fig. 10a-b).

# 5. The pottery of the EBA la-lb levels of Tilbes Höyük

The phenomenon of the Early Bronze Age of the Birecik-Carchemish region is of particular interest, due to the large presence of population and cultural richness. In this context, the appearance of chalices is striking, one of the typical ceramics of the period (Falsone and Sconzo, 2007) and which we find in abundant funerary (Sertok and Ergeç, 1999: 104, fig. 8a-f) or ritual contexts. It is a phenomenon that is understood beyond the border, in the Syrian Euphrates zone. Tilbes Höyük, contributes plenty of "chalices" in the sector of its sanctuary from EB I. The presence of this fossil director is maintained throughout the full spectrum of the EB I, as we would see two differentiated phases in the place: 1. EB Ia, and 2. EB Ib. Inside the EB I sanctuary of E4a-E3-E8 Square appeared part of a handmade flat disc with dimple-marked rim; the ceramic typology yields wheel made cups (figure 12-4).

The typology of the ceramics from sector AE 1-5 (SE), excavated in July 1999, offer us material typical of EB Ia, perhaps from a peer occupation to that of earliest EB Ia phase from E4b-E2-E7-E10-EF1 area. The architecture from the AE1-5 (SE) Squares coincides with the large stones used; it is older than the edifices discovered in the later EBIa habitat phase, the one found in E4a consisting of smaller rooms (Moya Molina, 2001: 426 figs. 7 and 8) with fragmented plain simple bowls and pastes and inside/outside pale brown 10YR 7/3 (Munsell, 1994) (figure 13-1-7).

Among the ceramic typology of the building of the most initial phase of the EB Ia at E4b-E2-E7-E10-EF1 Square, we see jugs with outturned rims, string cut bowls (figure 14-7), flat bottom bowl fragments (figure 14-4-5), bowls with hulls, and wheel made jars with reddish surface.

The EB Ia phase ceramics from Square AE 1-5 (SE) yielded light reddish, brown and yellowish wheel turned bowls and cups, hand-made bowls, string cut bowls with outturned rims, storage jars with outturned rims, carinated bowls and an unguentarius-ointment cup with decoration, inside/outside pale read 2.5YR 6/4 (Munsell, 1994) (figure 14-2).

## 6. The Archaeological EBA I levels of Surtepe Höyük

Surtepe seems to be the largest prehistoric site on the left bank of the Euphrates from the Syrian border, after Carchemish, a bigger and famous site, located about 29 km to the south, the largest archaeological site in the Birecik-Carchemish region throughout the pre-classic periods; Surtepe had at least 8 ha, with an inland lower area with a post-Iron Age city of 50 ha, and presents Early Bronze I levels on the mound. On the other hand, this site presents the most fertile land for agriculture in the entire sub-region, according to representatives of the Turkish Ministry of Agriculture (figure 15a-b).

Surtepe, has population continuity, without hiatus, after the occupation of the Late Chalcolithic (LC) 5 "burnt sanctuary" of Squares E43-E46, which we could date approximately on 3300-3100 BC (Gil Fuensanta, Mederos and Muminov, 2021: 60, fig. 11). A similar transitional phase to the Early Bronze Age has been found at Tilbes, and Zeytinli Bahçe Höyük, close to the modern town of Birecik (Frangipane, 2007: 129-131).

We have been able to distinguish the existence of "two phases" of EB I activity in Surtepe: 1. A very initial phase in the EB I sequence, without a break with the LC 5 in some sectors of the höyük; 2. A later use by EB I peoples from portions of the höyük for burials, but very localized in a specific sector of the place.

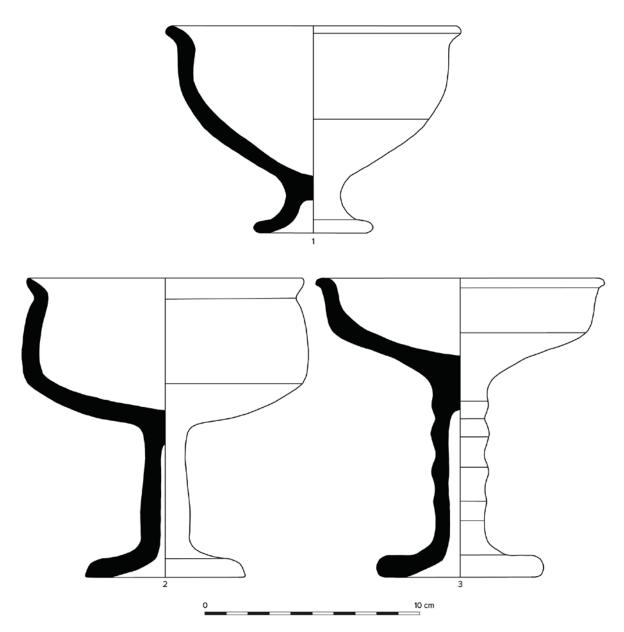


Figure 11. Tilbes Höyük 1999, EB lb tomb, wheel-made chalices and pedestaled bowl, square E4b-E2-E7-E10-EF1, locus 10031
Figura 11. Tilbes Höyük 1999, tumba del BA lb, copas y cuenco con pie a torno, corte E4b-E2-E7-E10-EF1, locus 10031

However, we have not been able to verify a stratigraphical depth (and therefore dilated in time) as that of Tilbes Höyük for the same period in Surtepe. The cause of the break in the sequence may lie in 1. The river flooding, periodic in ancient times (before the Birecik Dam was completed in year 2000), but very dangerous in various epochs: two different floods ensued in Tilvez Höyük/Meteler, Tilbes Höyük and Surtepe after EB I and III phases; 2. Due to the condition of various socio-political events in EB II and EB IV, prehistorical episodes of occupation that seem to be absent in Surtepe.

# 7. The mudbrick platforms of the LC 5 transition to EBA la at Surtepe

The excavations in Surtepe have provided remains of Early Bronze Age I monumental architecture, as opposed to the "more modest" distinctiveness of the architecture of Tilbes Höyük. In Surtepe, a very important element of clear ritual and political sign is the discovery of two high mudbrick platforms: one north, of which at least 10 meters high were preserved, and another south of which 7 meters were conserved.

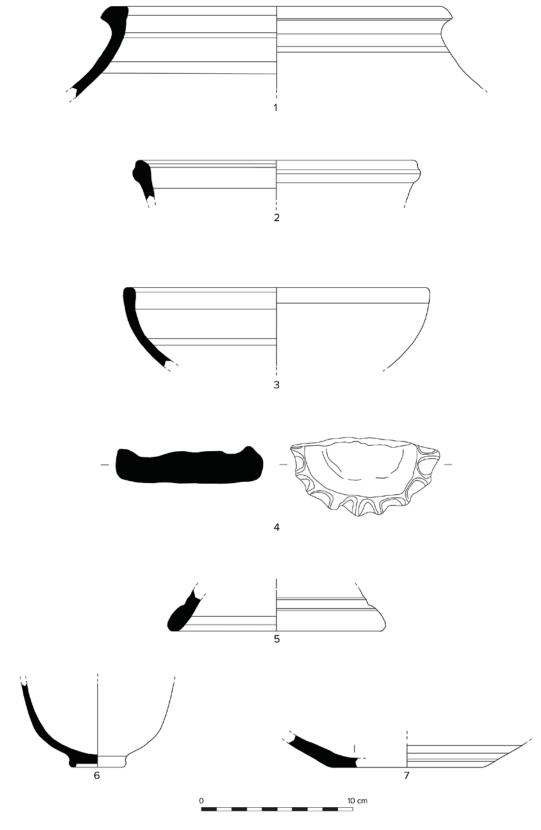


Figure 12. Tilbes Höyük 1999, EB lb pottery from the sanctuary, square E4a-E3-E8

Figura 12. Tilbes Höyük 1999, cerámica del BA Ib del santuario, corte E4a-E3-E8

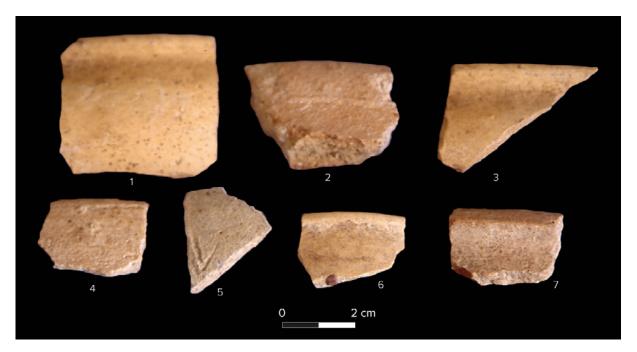


Figure 13. Tilbes Höyük 1999, fragments of plain simple bowls from the earliest phase EBA I, square E4a-E3-E8 Figura 13. Tilbes Höyük 1999, fragmentos de cerámica sin decorar de la fase inicial del BA I, corte E4a-E3-E8

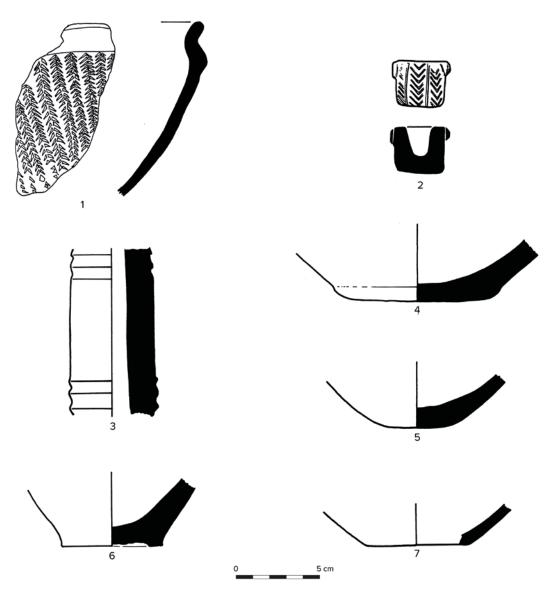
The north platform of Surtepe was discovered in excavation sector B<sub>3</sub>-B<sub>6</sub>, during the years 2000-2001. In square B<sub>3</sub>, initially 4 × 4 m, we found a well preserved, monumental structure of mudbrick. The materials associated with the platform were ceramic fragments of the Late Uruk and Early Bronze periods, the latter including reserved-slip ware. It seems to have been built in the post-LC 5 period, or the first phase of EB Ia. A stack of 60 unbaked mudbricks were found at the foot of the mudbrick platform. When they were smashed, we found Early Bronze ceramic fragments, such as reserved slip or cyma recta profiles, inside. That platform extended at least 10 m in depth (figure 16a-b).

During the 2001 excavations at the northern portion of the Surtepe mound were concentrated in trench  $B_3$  area, and in order to get a better exposure of the platform or tower-like structure and comprehension of its function. With this intention, additional trench soundings,  $B_4$ - $B_6$ , were opened south by the original trench  $B_3$ . These were  $4 \times 4$  m each, quite as  $B_3$  in former season 2000. With the new soundings we reached a depth of 4 meters during the 2001 season. We noted LC 1 painted ceramic fragments which appeared near the bottom of  $B_3$  trench. The tower or high platform showed its

continuity at least towards the east and the south. This architectural feature was built of mudbrick, of the same standardized size,  $40 \times 40$  cm, much as the mudbricks discovered in year 2000. In one sector on top of the tower or platform, it seems to display a certain discontinuity in its width.

The southern platform appears to have been built at the very end of the Chalcolithic period (post-local LC  $_5$ ) and partially rebuilt during Early Bronze Ia. This is a very big platform covering all the trenches investigated. The standardized size of the bricks is  $_40 \times _40$  cm, the same as our northern exposed monumental architecture. The Surtepe southern platform has greater surface area and more depth than the other mudbrick platform or tower discovered in the northern area of the archaeological deposit (figures  $_{17a}$ -d and  $_{18a}$ -b).

This Early Bronze I southern platform was disturbed by some pits or round structures of stone, of later date, possible Early Bronze III and IV. Those did not cover the total surface of the mudbrick platform. We presume that the later structures were laid down a long time or years after the use of the platform, when eroded materials accumulated at its feet, because we found traces of the collapse of the stone structures at a point above the platform base.



**Figure 14.** Tilvez, Tilbes and Surtepe Höyük 1999, EB I pottery. 1. Tilvez, operation 3, wheel made bowl, with carination and fine groves inside chip-carved decoration. 2. Tilbes, AE1-5, ointment cup with incised decoration. 3. Surtepe E20-21, incense burner/chalice. 4-5. Tilbes, E4b, flat bottom bowls. 6. Tilbes, E4b, bottom of cup. 7. Tilbes, E4b, string cut bowl

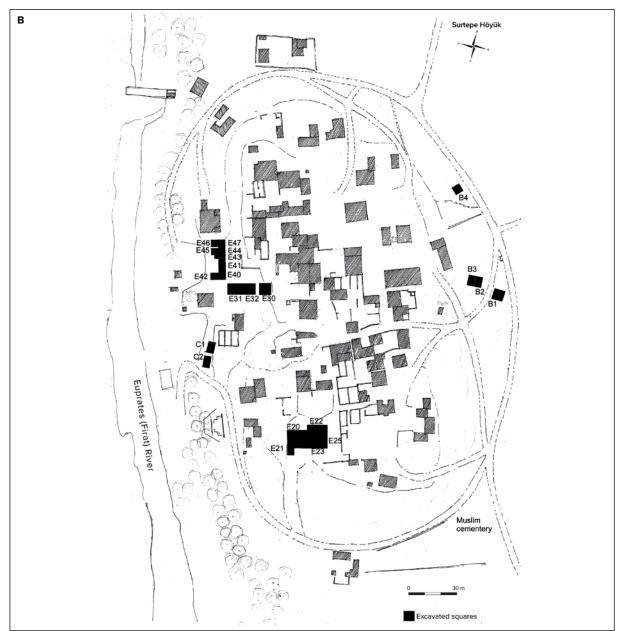
Figura 14. Tilvez, Tilbes y Surtepe Höyük 1999, cerámica del BA I. 1. Tilvez, corte 3, cuenco a torno, con carena y decoración excisa. 2. Tilbes, AE1-5, unguentario con decoración incisa. 3. Surtepe E20-21, incensario/cáliz. 4-5. Tilbes, E4b, cuencos de base plana. 6. Tilbes, E4b, base de cuenco. 7. Tilbes, E4b, cuenco de base recortada

The closest comparable parallels of these Surtepe platforms could be seen in the specimens from close at hand Hacinebi (LC 3) and coeval Tilbeshar (EB I). Such platforms already existed from the Ubaid culture. In Tell Hazna I, a site of 1.5 ha with 17.2 m of stratigraphical depth in the Syrian Khabûr, a religious complex was found, in the southern part of the place, with a proper sequence from the 3<sup>rd</sup> millennium BC for the most part (EB I-III), where there are platforms or terraces; there were indications of the use of the complex since Uruk times.

There it was a rectangular tower of 8 m high, on a platform of 1.7 m high, external perimeter of 5 × 6.4 m. It was called a ziggurat by its excavators, and they saw the closest parallels of the religious area with the Oval Temple of Khafaye in the Diyala river, Iraq (Munchaev, Merpert and Amirov, 2004).

The reconstruction or veneration of mudbrick towers can be seen in the reconstruction of platforms for sanctuaries and temples during the Ubaid and Uruk cultures. In the Mesopotamian cosmogony of the Bronze Age, the temple is associated with





**Figure 15.** A. Panoramic view of Surtepe Höyük and the Euphrates river. B. Topographic plan of Surtepe Höyük and excavated squares, 2000-2009 campaigns

**Figure 15.** A. Vista panorámica de Surtepe Höyük y el río Éufrates. B. Plano topográfico de Surtepe Höyük y cortes excavados, campañas 2000-2009





**Figure 16.** A-B. Surtepe Höyük 2000, north platform with at least 10 m depth, built in post-LC 5 period o EB Ia, square B3

**Figure 16.** A-B. Surtepe Höyük 2000, plataforma norte con al menos 10 m de profundidad, construida en la fase post-LC 5 o BA la, corte B3

the platforms, since it was raised on them during the time when the waters covered the earth, and it is also linked to the legend of the tree of life. The tree of life myth could have been depicted on portion of a post-LC 5 seal impression from Surtepe.

With the monumental platforms, it is not clear whether they were borrowed from the Uruk culture or from the local culture, what is certain is that we are once again facing evidence of a very complex social organization in the region north of the Euphrates since the middle of the  $4^{th}$  millennium BC.

We must note in this context that Hacinebi Tepe, 2 km south of Surtepe, during LC 2-3, phases A-B1, it presented a mudbrick platform (Stein, 2001: 271, 272, fig. 8.2), and in LC 3, phase B1, two stone terraces or platforms (Stein et al., 1996a: 214, fig. 7; Stein, 2001: 272, 273, fig. 8.3), but did not offer any prehistoric structure after an apparent abandonment subsequent to the LC 4, coinciding with the period (the final phase of the Late Chalcolithic) from which monumental structures of the LC are found in Surtepe. But Hacinebi did provide some EB I burials (Stein et al., 1996b: 144, 159-160, fig. 6-8), though no associated buildings; those resemble EB Ib phase burials at Tilbes or Surtepe.

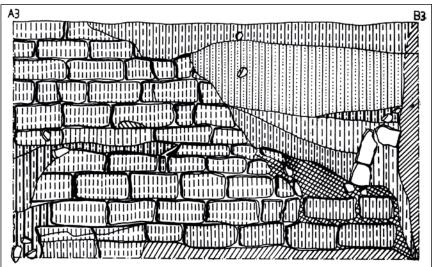
We alleged that the platforms present since the LC 2-3 in Hacinebi crystallize in large mudbrick structures at the EB I in Surtepe. This issue is linked to rituals during the construction of buildings in Mesopotamia in the 4<sup>th</sup> millennium. It is not an exclusive character of the first states, but it does constitute an element to take into consideration. The ceremonies are sometimes survivals of past local societies, other than a transmission of certain rites associated with edifices of the Uruk culture in the middle and upper Euphrates.

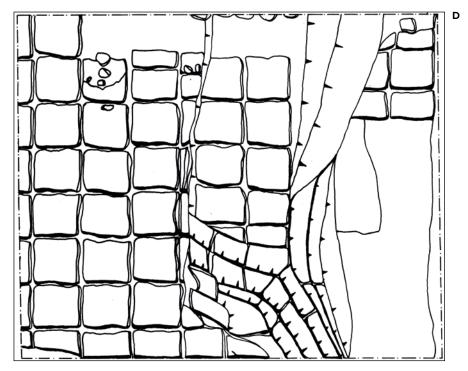
Surtepe also provided portions of an important burnt ritual building, likely favissa, close to the mudbrick platforms, with personality proper of a sanctuary, and whose date could be similar to the EB Ia-Ib sanctuary of Tilbes Höyük in E4a-E3-E8 Square, judging after the ceramic parallels. There in E2o-24 squares a pebble podium appeared and adding together to those favissa at the foot of the platform. Such as the aforementioned favissa, the most initial phase of use of that small rock plinth would be since the post-LC 5 transitional phase.

Such as Tilbes Höyük, Surtepe presents also two different periods of EB I commitment in its southern and central sectors of the site. Throughout the Surtepe Höyük EB Ib phase, there was no attested utilization of their mudbrick platforms. The most recent of those time segments had an exploit by burials, which could be dated to the aforesaid Tilbes EB Ib phase.









**Figure 17.** A-D. Surtepe Höyük 2001, south platform built in post-LC 5 period and partially rebuilt during EB Ia, with standardized bricks of  $40 \times 40$  cm, squares C1-C8

**Figura 17.** A-D. Surtepe Höyük 2001, plataforma sur construida en la fase post-LC 5 y parcialmente reconstruida en el BA la, con adobes estandarizados de  $40 \times 40$  cm, cortes C1-C8



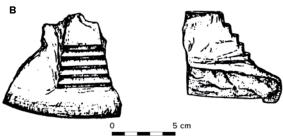


Figure 18. A-B. Surtepe Höyük 2001, basement of the south platform, square C6, locus 20029 Figura 18. A-B. Surtepe Höyük 2001, base de la plataforma sur, corte C6, locus 20029

A terracotta model (St4068, from locus 120), found in the southern sector of the site (Squares C), presumably belonged to the same stage of this southern platform (Gil Fuensanta, 2007: 144, fig. 9.2); of this a fragment is preserved in which a high stepped platform — or tower — clearly appears; the terracotta model in origin

depicted several buildings but only the representation of the stepped edifice has survived. The model was made of fine ware and is associated with Late Uruk (LC 5) material. This reminds us of the ziggurat whose oldest examples in southern Mesopotamia date back to the end of the third millennium (figure 19a-b).





**Figure 19.** A-B. Surtepe Höyük 2000, terracotta model of a high stepped platform, post-LC 5, square E1, locus 120

**Figura 19.** A-B. Surtepe Höyük 2000, modelo de terracota de una plataforma escalonada, post-LC 5, corte E1, *locus* 120

According to some authors, the ziggurat is derived from the platforms on which the temples were built during the Uruk culture (Crawford, 1993: 73). The first known ziggurat in southern Mesopotamia is that of the city of Ur, built during the III Dynasty of the place, that is, around 2200–2100 BC, and which is equivalent to the end of the Early Bronze Age of the Birecik-Carchemish sub-region; it is moreover the best preserved in Iraq.

## 8. The EBA I pottery from Surtepe

The ceramics in Surtepe that belong to the EB I phase of Northern (Horizon IA in Jamieson, 1993: 89, fig. 1) and Southern Mesopotamia consist of fossil director string-cut bowls, jars and chalices decorated by a series of parallel incisions and post-Uruk

jars with reserved slip. It is a unique set of late contexts within the post-Late Uruk sequence, such as Acropolis I:16 from Susa and Eanna III from Warka.

The Surtepe ceramics found in the sector of the southern adobe platform consist of tall goblets, inside/outside pale yellow 2.5 YR 7/4, (Munsell, 1994) a key type of Hassek Höyük during EB I, footed bowls, "chalices" and "champagne" cups, and late reserved slip bowls and jars from the EB Ia phase. We find hardly any common pottery outside of these very distinctive types. Grit plain simple buff and redbrown or brown paste surfaces predominate. There are string cut bowls, and cyma recta bowls although they are the most minority within such a distinctive set of EB I. The ceramics from the area also show storage jars with reserved slip decoration typical of EB I. The lithic material is not much compared to that discovered in E42-47 (figure 20a-b).

That pottery is found in Carchemish and the Birecik Dam Cemeteries, the fruit stands or champagne pots (Woolley and Barnett, 1952: pl. 56d, 57a2, 57b4-5, 58a2, 58a4, 59a9, 11, 15 and 17, 59b1-5, 59c2; Sertok and Ergeç, 1999: 104, fig. 8a-f), pedestal bowls (Sertok and Ergeç, 1999: 104, fig. 8h-i), Late Reserved Slip Ware (Wolley and Barnett, 1952: pl. 58c1-2, 59a10; Sertok and Ergeç, 1999: 103, fig. 7a-h) and few cyma recta bowls (Sertok and Ergeç, 1999: 93).

Other very typical post-Uruk pottery items discovered were the cylinder seal impressions. In addition to the pottery, among the Uruk elements itself, at least two cylinder seals impressions belonging to the emblematic geometric style stands out, demonstrating a clear connection with the post southern Uruk/Jemdet Nasr. This time would be parallel to the rise of the local EB Ia.

## The site of Tilvez Höyük/Meteler and the EBA I levels

After the flooding by the Birecik Dam at the end of the year 2000, the field work was focused on Surtepe and Tilvez. The EB I presence in Surtepe is very extensive in territory, covering the entire höyük, and surveys have shown a dispersion of materials that



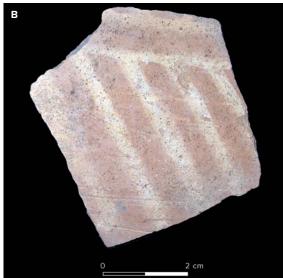




Figure 20. A-C. Surtepe Höyük 2000, tall footed goblet, late reserved slip ware and obsidian, EB I, squares E40 and 47.

**Figura 20.** A-C. Surtepe Höyük 2000, vaso con pie, fragmento con pintura en reserva tardía y obsidiana, BA I, cortes E40 y 47

reach Tilvez/Meteler, where at least a portion of the höyük (with several cones) was occupied in this period (figure 21a-b).

We have put forward the alternative hypothesis that Tilvez/Meteler is an extension of the Surtepe Höyük site at least during some periods, including part of the Early Bronze Age (figure 21c).

In such way, on Tilvez Höyük, actually with 3.5 ha, the site also called by locals Meteler, we tried to obtain the maximum information on the culture of Early Bronze I, and for this reason we continued digging in various sectors of the höyük, in the south and centre-south cones of the main mound.

We noted that Tilvez Höyük/old Meteler village survived the waters of the Dam, but was menaced because of the proximity of a newly built concrete factory. Workers of the factory have cut away parts of the mound illegally, destroying Early Bronze strata on the north-western side of the mound.

During the excavation, EB I levels were reached at the upper mound. Architectural remains were also eroded on the north-western slope of the site. Because of this, we concentrated most of our later digging strategy and field activities at the southern side of the Tilvez mound, where EB I materials were found. Any human remains of the EB I period were found on the höyük.

Such as at Tilbes Höyük, a huge Early Bronze Phase has been documented at Tilvez. Then, we decided to get a stratigraphical connection of the occupation of the höyük. We excavated at Tilvez Höyük two soundings, Operation 7 and Operation 8. An additional drawn section, Operation 6, visible on the surface, was also investigated (Gil Fuensanta et al., 2003: 371). Down slope, by the former river end, we decided to open Operation 8, 3 × 2 m, a small sounding, for the purpose of checking how far the river covered earlier Bronze-Age strata during late Antiquity. After digging to a depth of 2 m, we stopped the sounding at a point of emergence of some stones on place, associated with Early Bronze materials.

After our excavations, there were two main periods of great development in the local sequence of Tilvez/Meteler: the "first great urbanization", which occurs in the Early Bronze Age and specially EB I,

and the "second urbanization", which would cover an important part of local EB III/IV. Tilvez Höyük/ Meteler, contributed a phase of EB I, perhaps the EB Ia phase of Tilbes Höyük.

There was a fossil director that relates it to the Ninivite V phase from Northern Mesopotamia from Tilvez Operation 3. It appeared on locus 502, lot 99014, No 433/1, a wheel-made reddish bowl, with carination, wheel thrown, inside dark red 2.5YR 418 outside pale read 2.5YR 6/4 (Munsell, 1994). Fine parallel groves inside chip-carved decoration in imitation of basket work outside (figure 22a-b).

### 10. Conclusions

The supposed "regionalization" in the different regions of Mesopotamia during the phases of the first urbanism and the rise of the States is one of the questions that have remained in the investigation throughout the decades.

During the Later Prehistory of the region, the Euphrates and the contiguous regions represented a key territory in the important cultural movements from the south of Mesopotamia to its north, far-reaching areas such as the Gulf or Turkish Cilicia, and mainly in the stages of the Late Chalcolithic and EBA cultures.

The beginning of the Bronze Age (EB I) in northern Mesopotamia has traditionally been considered a period of break with the previous cultural tradition of the Uruk period, when Euphrates river flooding events caused disruptions in different sites as Horum Höyük, Zeytinli Bahçe or Saraqa Höyük (Wilkinson et al., 2012: 162-163). But in the south-eastern area of Turkey, specifically in the Birecik-Carchemish sub-region (middle Euphrates), the data provided by archaeological surveys and excavations also speak, on the contrary, of a time of dense population. The amount of settlement in Early Bronze I with 100 ha occupied (Rothman and Gil Fuensanta, 2003: 616, table 2; Gil Fuensanta, 2007: 143, table 9.3; Wilkinson et al., 2012: 164, fig. 19), as well as the profusion of burials from the period (Sertok and Ergeç, 1999), are supportive of this (figure 23a-b).

The EB I culture of Birecik area, as told by Tilbes Hoyuk and Surtepe, has their roots in the Fourth millennium, judging by the dating and presence of Uruk-type cultural elements in the first phase of occupation of EB Ia. This area is included in the ceramic province of the Late Reserved Slip Ware (Rova, 1996: 21, 36, fig. 4) and indicates a change of orientation of Tilbes and Surtepe towards the Northern Levant, the region of the future kingdom of Ebla, as opposed to the route of the Euphrates dominant during the Late Chalcolithic (figure 23c).

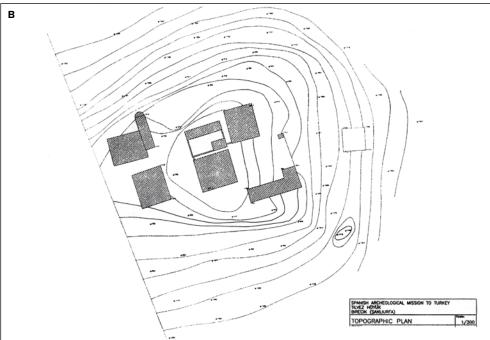
In terms concerning the first states of Mesopotamia, Tilbes Höyük stands out for having the largest uninterrupted cultural sequence of the Early Bronze Age in the region, since it does not present a population gap between the immediate post-Uruk period and the local Middle Bronze II period (that is to say for almost fifteen centuries). The entire Early Bronze Age, from an Uruk Terminal phase (post-LC5, here the earliest EB I subphase) is attested at Tilbes Höyük.

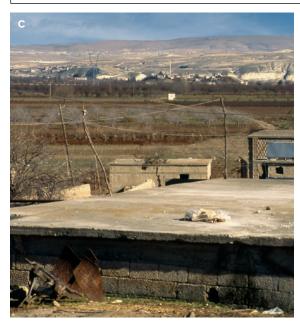
Tilbes Höyük was the possible location of a regional sanctuary at the EB Ia-Ib, without occupancy gaps, but with "ritual filling" before the EB II "Transcaucasian" sanctuary. Possible fertility/rebirth cult is attested due to nearby tombs.

There are two internal epochs of use in the EB I sanctuary from squares E4a-E3-E8 at Tilbes. These occupation sub-phases are consistent with two moments of different occupation during the full EB I phase in sector E4b-E2-E7-E10-EF1, but there and in Sector AE1-5 there was a previous period, very early in EB I sequence, a post Uruk phase (Gil Fuensanta, 2007: table 9.4) and entirely consistent with the similar sub-period found at Surtepe or nearby Zeytinli Bahçe, south of Birecik (Frangipane, 2007: 130-131, fig. 8.11/13-15). Due to its character of typological forms in some directing fossils of the Bronze period, added to the absence of an occupation hiatus with respect to the rest of EB I sequence in Tilbes Höyük, we believe that we should differentiate that post-Uruk segment from the EB sequence, and include it as a post-Chalcolithic phase in Tilbes Höyük.

The existence of certain key markers, as the continuous occupation of the site, in spite of settlement discontinuity in other major sites such as Tilvez/







**Figure 21.** A-C. Panoramic view of Tilvez Höyük/Meteler, possible extension of Surtepe Höyük and topographic plan, 1997-1999 campaigns, and view of Surtepe from Tilvez

**Figura 21.** a-c. Vista panorámica de Tilvez Höyük/Meteler, posible prolongación de Surtepe Höyük, plano topográfico de las campañas 1997-1999 y vista de Surtepe desde Tilvez

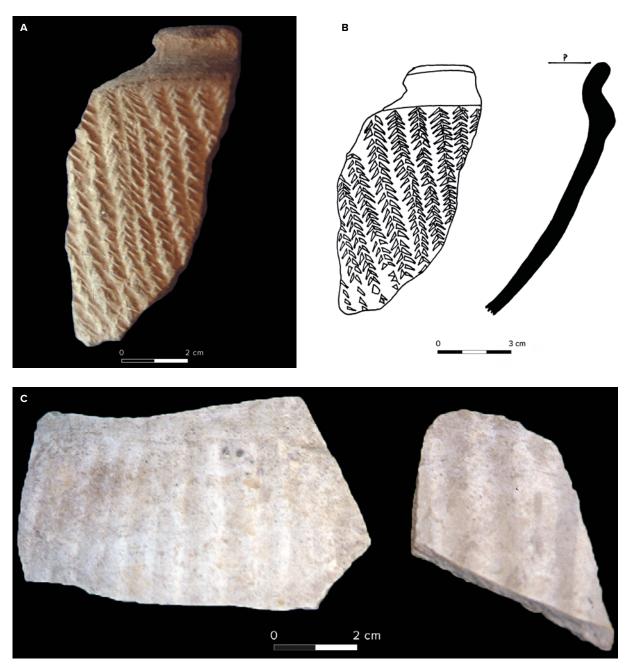


Figure 22. A-B. Tilvez Höyük/Meteler 1998, vase with Ninivite 5-like relief decoration, EB Ia, operation 4. C. Late reserved slip ware.

Figure 22. A-B. Tilvez Höyük/Meteler 1998, vaso con decoración en relieve que imita el Ninivita 5, BA Ia, corte 4. C. Fragmento con pintura roja en reserva tardía

Meteler or the biggest Surtepe, and specific buildings and associated ritual activities, or the early quality of the metal objects and slags in Tilbes Höyük may give the place a certain link with the elites of each prehistoric phase, and this place not be a mere dwelling place, but rather carry out specialized functions: perhaps religious or funerary, besides to be a main production place of stone, ceramics or metal (Özbal and Uran, 2002); which would explain its

long uninterrupted settlement for more than fifteen centuries, while a likely nearby large centre such as Surtepe had alternate settlement periods with long hiatuses.

Surtepe not only seems to have had a greater occupation during this EB I period than all the places described up to now (with the exception of Carchemish) but also offers decisive remains on the different post-Chalcolithic and Early Bronze I

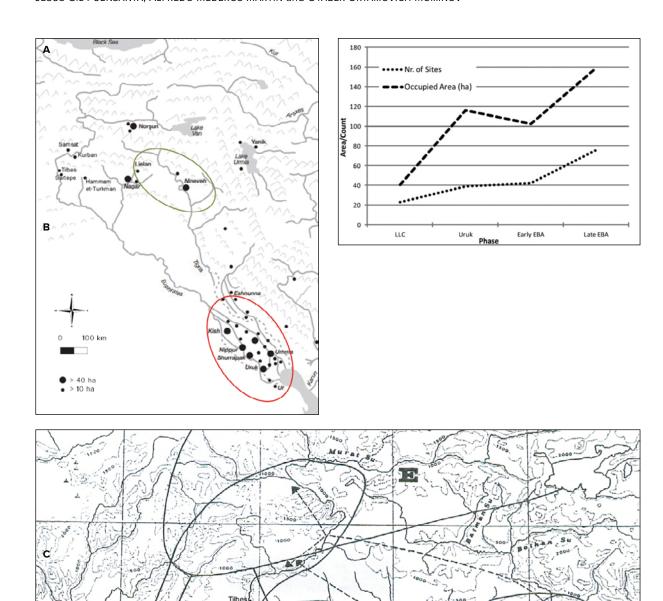


Figure 23. A. Main sites in Northern and Southern Mesopotamia during EB Ia, Ninivite 5 and Jemdet Nasr-ED I (based on drawing by Wright, 2004: fig. 2). B. Occupied area in post-LC5 and EBA I-II sites in the Middle Euphrates (Wilkinson et al., 2012: 164, fig. 19). C. Tilbes, Tilvez and Surtepe Höyük in the ceramic province (D) of late reserved slip ware during EB I (Rova, 1996: 36, fig. 4)

B

**Figura 23.** A. Principales asentamientos en el norte y sur de Mesopotamia durante el Bronce Antiguo la, Ninivite 5 y Jemdet Nasr-ED I (a partir de Wright, 2004: fig. 2). B. Área ocupada por los asentamientos de post-LC5 y BA I-II en el Medio Éufrates (Wilkinson *et alii*, 2012: 164, fig. 19). C. Tilbes, Tilvez y Surtepe Höyük en la provincia cerámica (D) con pintura roja en reserva tardía del BA I (Rova, 1996: 36, fig. 4)

cultures in the area; there, soundings and stratigraphic grids have been made in the north, south and southeast sectors of the broad höyük.

As huge platforms or towers of the post-Late Chalcolithic/Early Bronze I Phase have been documented at Surtepe, that period seems to have displayed architectural features with some public and presumably important functions at Surtepe. They became a main focus for our research on the mound. It raises questions about the proposal of an EB I collapse, at least in its beginnings, or an immediate transition from Late Chalcolithic/Uruk presence in the region.

The northern big platform or tower-Iike structure of Late Uruk-Early Bronze I date discovered at the northern portion of the Surtepe mound does not seem now that this is a city wall, because a similar character was observed in the high platforms or towers discovered at Hazna in Syrian Khabur (Munchaev, Merpert and Amirov, 2004). And they seem to date to the same time as that of Surtepe discoveries. Also, other archaeological excavations have found platforms of either LC or EBI date in the same region or neighborhood, at Early Third millenium Tilbeshar or the mudbrick LC 2-3 platforms at Hacinebi (Stein, 2001: 272, fig. 8.2).

The standardized size of bricks from the Surtepe platforms seem a little bit bigger than other examples found at the possibly contemporary Tell Hazna platforms at the Syrian Khabur, but the same as our northern exposed monumental architecture. It suggests a further concentration of activity in the northern and southern areas of Surtepe after the late fourth millennium occupation.

Were the Surtepe platforms a ritual ziggurat-like structure or basement for elite residence, which is still unclear, it may indicate that the intense interaction of northern and southern Mesopotamian culture of the Late Uruk period, did not abruptly end, as some have argued. On the other hand, a possible platform of similar date of Tell Hazna in northern Syria, may indicate that this is not a formal ziggurat but a platform of northern cultural origin.

Finally, the EB I ceramics in the platform sectors in Surtepe suggest a change in culinary habits with respect to Uruk LC 5. Especially a change

of function, in addition to the area of the southern platform, E20-22. In general terms, the post-Late Chalcolithic and Early Bronze materials at the Surtepe platforms show some similarities with those ceramics and other associate findings from the nearby site of Tilbes Höyük in terms of the occupation periods.

## Bibliography

- Alessio, M., Allegri, L., Azzi, C., Bella, F., Calderoni, G., Cortesi, C., Improta, S. and Petrone, V. (1983): "<sup>14</sup>C Dating of Arslantepe". *Origini*, 12: 575-580.
- Alessio, M., Bella, F. and Improta, S. (1976): "University of Roma Carbon-Dates XIV". *Radiocarbon*, 18 (3): 335-349.
- Algaze, G. (ed.) (1990): Town and Country in Southeastern Anatolia. II. The Stratigraphic Sequence at Kurban Höyük. Oriental Institute Publications, 110. Chicago Oriental Institute. University of Chicago. Chicago.
- Algaze, G., Brueninger, R. and Kundstad, J. (1994): "The Tigris-Euphrates Archaeological Reconnaissance Project Final Report of the Birecik and Carchemish Dam Survey Areas".

  Anatolica, 20: 1-26. <a href="http://dx.doi.org/10.2143/ANA.38.0.2186349">http://dx.doi.org/10.2143/ANA.38.0.2186349</a>>.
- Algaze, G., Dinckan, G., Hartenberger, B., Matney, T., Pournelle, J., Rainville, L., Rosen, S., Rupley, E., Schlee, D. and Vallet, R. (2001): "Research at Titris Hoyuk in Southeastern Turkey: The 1999 Season". *Anatolica*, 27: 23-106.
- Becker, J. (2007): Nevali Cori. Keramik und Kleinfunde der Halaf- und Fruhbronzezeit. Archaeologica Euphratica. Ausgrabungen und Forschungen im turkischen Euphratgebiet, 4. Verlag Philipp von Zabern. Mainz am Rhein.
- Bronk Ramsey, C. (2020): "OxCal software version 4.4". <a href="https://c14.arch.ox.ac.uk/oxcal.html">https://c14.arch.ox.ac.uk/oxcal.html</a>.
- Calderoni, G., Caneva, I., Cazella, A., Frangipane, M. and Petrone, V. (1994): "Department of Earth Sciences at the University of Roma Radiocarbon Dates III". *Radiocarbon*, 36 (1): 143-152.
- Crawford, H. (1993): *Sumer and the Sumerians*. Cambridge University Press. New York.

- Deckers, K., Drechsler, P. and Sconzo, P. (2015): "Radiocarbon Chronology". In U. Finkbeiner, M. Novak, F. Sakal and P. Sconzo (eds.): ARCANE [Associated Regional Chronologies from the Ancient Near East and the Eastern Mediterranean] IV. Middle Euphrates. Brepols. Turnhout: 401-421.
- Diamant, S. and Rutter, J. (1969): "Horned Objects in Anatolia and the Near East and Possible Connections with the Minoan 'Horns of Consecration". *Anatolian Studies*, 19: 147-177. <a href="http://dx.doi.org/10.2307/3642622">http://dx.doi.org/10.2307/3642622</a>.
- Di Nocera, G.M. (2000): "Radiocarbon Datings from Arslantepe and Norşuntepe: The fourththird millennium absolute chronology in the Upper Euphrates and Transcaucasian region". Chronologies des pays du Caucase et de l'Euphrate aux IV<sup>e</sup>-III<sup>e</sup> millénaires (Istanbul, 1998). Institut Français d'Études Anatoliennes-Georges Dumézil. Varia Anatolica, 11. Istanbul: 73-93.
- Falsone, G. and Sconzo, P. (2007): "The 'champagne-cup' period at Carchemish. A review of the Early Bronze Age levels on the Acropolis and the problem of the Inner Town". In E. Peltenburg (ed.): *Euphrates river Valley settlement:* the Carchemish sector in the third millennium BC. Oxbow books. Oxford: 73-93.
- Frangipane, M. (1997): "A 4<sup>th</sup>-millennium temple/palace complex at Arslantepe-Malatya. North-South relations and the formation of early state societies in the Northern regions of Greater Mesopotamia". *Paléorient*, 23 (1): 45-73. <a href="http://dx.doi.org/10.3406/paleo.1997.4644">http://dx.doi.org/10.3406/paleo.1997.4644</a>.
- Frangipane, V.M. (2007): "Establishment of a Middle/Upper Euphrates Early Bronze I culture from the fragmentation of the Uruk world. New data from Zeytinli Bahçe Höyük (Urfa, Turkey)". In E. Peltenburg (ed.): Euphrates river Valley settlement: the Carchemish sector in the third millennium BC. Oxbow books. Oxford: 122-141.
- Gerber, J.C. (2005): *Hassek Höyük III: Die frühbronzezeitliche Keramik.* Istanbuler Forschungen, 47. Istanbul.
- Gil Fuensanta, J. (2007): "The Tilbes Project (Birecik Dam, Turkish Euphrates): The Early Bronze Evidence". In E. Peltenburg (ed.): *Euphrates river Valley settlement: the Carchemish sector in the third millennium BC*. Oxbow books. Oxford: 142–151.

- Gil Fuensanta, J., Charvat, P., Bucak, E., Moya Molina, R. and Jiménez, Ma.A. (2003): "2001 Tilbes and Tilvez Höyük Salvage Excavation Report". Kazi Sonuclari Toplantisi XXIV (Ankara, 2002). Cilt 1. T.C. Kültür Bakanligi. Ankara: 369-376.
- Gil Fuensanta, J. and Charvàt, P. (2005) "Birecik achéménide et l'age du Fer IIIB dans le Sud-Est anatolien". In Briant, P. (ed.): *L'archéologie de l'empire achéménide: nouvelles recherches*. Persika, 6. Editions de Boccard. Paris: 151-174.
- Gil Fuensanta, J., Rothman M.S., Charvat, P. and Bucak, E. (2002): "Tilbes Höyük Salvage Project Excavation". *Kazi Sonuclari Toplantisi* XXIII (Cilt 1). T.C. Kültür Bakanligi. Ankara: 131-144.
- Gil Fuensanta, J., Mederos Martín A. and Uktamovich Muminov, O. (2019): "Santuarios del Bronce Antiguo I-III y ritos de enterramiento en Tilbes Höyük, Sureste de Turquía". *Cuadernos de Prehistoria y Arqueología de la Universidad Autónoma de Madrid*, 45: 51-68. <a href="http://dx.doi.org/10.15366/cupauam2019.45.003">http://dx.doi.org/10.15366/cupauam2019.45.003</a>>.
- Gil Fuensanta, J., Mederos Martín, A. and Uktamovich Muminov, O. (2020): "On The Post-Ubaid stratigraphy and complex architecture of the Birecik Dam Area (Turkish Euphrates): Surtepe and Tilbes-Körche Late Chalcolithic I levels". Cuadernos de Prehistoria y Arqueología de la Universidad Autónoma de Madrid, 45: 51-67. <a href="http://dx.doi.org/10.15366/cupauam2020.46.001">http://dx.doi.org/10.15366/cupauam2020.46.001</a>.
- Gil Fuensanta, J., Mederos Martín A., and Uktamovich Muminov, O. (2021). "Not far from the limits of the Northern Uruk Culture in the Middle/Upper Euphrates: the later Chalcolithic levels of Surtepe (Birecik, Southeastern Turkey)". Cuadernos de Prehistoria y Arqueología de la Universidad Autónoma de Madrid, 47 (2): 39-82. <a href="http://dx.doi.org/10.15366/cupauam2021.47.2.002">http://dx.doi.org/10.15366/cupauam2021.47.2.002</a>.
- Gil Fuensanta, J., Rothman M.S., Charvat, P. and Bucak, E. (2002): "Tilbes Höyük Salvage Project Excavation [1999]". *Kazi Sonuclari Toplantisi* XXIII (Ankara, 2001). Cilt 1. T.C. Kültür Bakanligi. Ankara: 131-144.
- Jamieson, A.S. (1993): "The Euphrates valley and Early Bronze Age ceramic traditions". *Abr-Nah-rain*, 31: 36-92.

- Kepinski, C. (2007): "Dynamics, Diagnostic Criteria and Settlement Patterns in the Carchemish Area during the Early Bronze Age Period". In E. Peltenburg (ed.): Euphrates river Valley settlement: the Carchemish sector in the third millennium BC. Oxbow books. Oxford: 152-163.
- Kepinski-Lecomte, C. and Ergeç, R. (1999): "Tilbeshar 1998". *Anatolia Antiqua*, 7: 245-251; <a href="https://doi.org/10.3406/anata.1999.930">https://doi.org/10.3406/anata.1999.930</a>>.
- Lloyd, S. and Mellaart, J. (1958): "Beycesultan Excavations: Fourth Preliminary Report, 1957". *Anatolian Studies*, 8: 93-125. <a href="http://dx.doi.org/10.2307/3642416">http://dx.doi.org/10.2307/3642416</a>.
- Lloyd, S. and Mellaart, J. (1962): *Beycesultan. I. The Chalcolithic and Early Bronze Age Levels.* The British Institute of Archaeology at Ankara. London.
- Marchetti, N. (ed.) (2014): Karkemish. An Ancient Capital on the Euphrates (Bolonia, 2012). Orient Lab, 2. Ante Quem. Bologna.
- Marchetti, N., Bitelli, G., Franci, F. and Zaina, F. (2020): "Archaeology and Dams in Southeastern Turkey: Post-Flooding Damage Assessment and Safeguarding Strategies on Cultural Heritage". *Journal of Mediterranean Archaeology*, 33 (1): 29-54. <a href="https://doi.org/10.1558/jma.42345">https://doi.org/10.1558/jma.42345</a>.
- Marro, C. (2007): "Continuity and Change in the Birecik Valley at the End of the Third Millennium: The Archaeological Evidence from Horum Höyük". Sociétés humaines et changement climatique à la fin du troisième millénaire: une crise a-t-elle eu lieu en Haute Mésopotamie? (Lyon, 2005). Varia Anatolica, 19. Institut Français d'Études Anatoliennes-Georges Dumézil. Istanbul: 383-401.
- Moya Molina, R.G. (2001): "Recent discoveries on the archeology of the death of Early Bronze I in Bireyik (Turkish Euphrates)". In J.L. Montero Fenollos, J. Vidal Palomino and F. Masó Ferrer (eds.): From the steppe to the Mediterranean. Proceedings of the 1st Congress of Archeology and Ancient History of the Near East (Barcelona, 2000). Eridu Monographs, 1. Societat Catalana d'Amics del Pròxim Orient Antic. Barcelona: 419-427.

- Munchaev, R.M., Merpert, N.Ya. and Amirov, S.N. (2004): ТЕЛЛЬ-ХАЗНА І. Культово\_административный центр IV—III тыс. до н. э. в Северо-восточной Сирии./TELL HAZNA I. A Religious and Administrative Center in North-East Syria in IV—III mil. BC. Nauká. Moscow.
- Munsell Soil Color Charts (1994): Revised Edition. Munsell Color. New Windsor, NY.
- Ökse, A.T. (2001): "The Early Bronze Age in Southeastern Anatolia". In G. McMahon and S. Steadman (eds.): *The Oxford Handbook of Ancient Anatolia (1*0.000–323 BCE). Oxford University Press. Oxford: 260–289. <a href="http://dx.doi.org/10.1093/oxfordhb/9780195376142.013.0011">http://dx.doi.org/10.1093/oxfordhb/9780195376142.013.0011</a>.
- Özbal, H. y Turan, Ü (2002): "Tilbeş Höyük ve Surtepe: M.Ö. 3. Binyılda Güneydoğu Anadolu Metalurjisi". 17 Arkeometri Sonuçlari Toplantisi. Anıtlar ve Muzeler Genel Müdürlüğü Yayınları. Ankara: 59-70.
- Özgüç, N. (1992): "The Uruk Culture at Samsat". In B. Hrouda, S. Kroll and P. Spanos (eds.): *Von Uruk nach Tuttul*. Profil Verlag. Munich: 151-165.
- Palumbi, G., Alvaro, C., Grifoni, C., Frangipane, M., Vignola, C. and Terrasi, F. (2017): "A 'communal' building of the beginning of the Early Bronze Age at Arslantepe-Malatya (Turkey). Spatiofunctional analysis and interpretation of the archaeological context". *Paléorient*, 43 (1) 89-123. <a href="https://doi.org/10.3406/paleo.2017.5753">https://doi.org/10.3406/paleo.2017.5753</a>.
- Reimer, P., Austin, W.E.N., Bard, E., Bayliss, A., Blackwell, P.G., Bronk Ramsey, C., Butzin, M., Cheng, H., Edwards, R.L., Friedrich, M., Grootes, P.M., Guilderson, T.P., Hajdas, I., Heaton, T.J., Hogg, A.G., Hughen, K.A., Kromer, B., Manning, S.W., Muscheler, R., Palmer, J.G., Pearson, C., van der Plicht, J., Reimer, R.W., Richards, D.A., Scott, E.M., Southon, J.R., Turney, C.S.M., Wacker, L., Adolphi, F., Büntgen, U., Capano, M., Fahrni, S.M., Fogtmann-Schulz, A., Friedrich, R., Köhler, P., Kudsk, S., Miyake, F., Olsen, J., Reining, F., Sakamato, M., Sookdeo, A. and Talamo, S. (2020): "IntCal20 Northern Hemisphere radiocarbon age calibration curve (o-55 cal kBP)". Radiocarbon, 62 (4): 725-757. <a href="https://doi.org/10.1017/">https://doi.org/10.1017/</a> RDC.2020.41>.

- Rothmann, M.S. and Gil Fuensanta, J. (2003): "The archaeology of the Early Bronze I and II Periods in Southeastern Turkey and North Syria". In M. Özdogan, H. Hauptmann and N. Basgelen (eds.): From village to cities. Studies presented to Ufuk Esin. Arkeoloji ve Santa Publications. Istanbul: 583-622.
- Rova, E. (1996): "Ceramic provinces along the middle and upper Euphrates: Late Chalcolithic— Early Bronze Age, a diachronic view". *Baghdader Mitteilungen*, 27: 13-37.
- Sertok, K. and Ergeç, R. (1999): "A New Early Bronze Age Cemetery: Excavations near the Birecik Dam, Southeastern Turkey. Preliminary Report (1997-98)". *Anatolica*, 25: 87-107. <a href="http://dx.doi.org/10.2143/ANA.25.0.2015486">http://dx.doi.org/10.2143/ANA.25.0.2015486</a>.
- Stein, G. (2001): "Indigenous Social Complexity at Hacinebi (Turkey) and the Organization of Uruk Colonial Contact". En M.S. Rothman (ed.): *Uruk Mesopotamia and its Neighbors (Santa Fe, 1998)*. School of American Research Advances Seminar Series. Santa Fe: 265-305.
- Stein, G., Bernbeck, R., Coursey, C., McMahon, A., Miller, N., Misir, A., Nicola, J., Pittman, H., Pollock, S. and Wright, H.T. (1996a): "Uruk colonies and Anatolian Communities: An Interim Report on the 1992-1993 excavations at Hacinebi, Turkey". *American Journal of Archaeology*, 100: 205-260.
- Stein, G., Edens, C., Miller, N., Özbal, H., Pearce, J. and Pittman, H. (1996b): "Hacinebi, Turkey: Preliminary report on the 1995 excavations". *Anatolica*, 22: 85-128.
- Stuiver, M., Reimer, P.J., Bard, E., Beck, J.W., Burr, G.S., Hughen, K.A., Kromer, B., McCormac, G., Plicht, J. van der and Spurk, M. (1998): "Intcal98 radiocarbon age calibration, 24.000-0 cal BP". *Radiocarbon*, 40 (3): 1041-1083.

- Vignola, C., Masi, A., Balossi Restelli F., Frangipane, M., Marzaioli, F., Passariello, I., Stellato, L., Terrasi, F. and Sandori, L. (2017): "δ<sup>13</sup>C and δ<sup>15</sup>N from <sup>14</sup>C-AMS dated cereal grains reveal agricultural practices during 4300-2000 BC at Arslantepe (Turkey)". *Review of Palaeobotany and Palynology*, 247: 164-174.
- Wilkinson, T.J., Peltenburg, E., McCarthy, A., Wilkinson, E.B. and Brown, M. (2007): "Archaeology in the Land of Carchemish: landscape surveys in the area of Jerablus Tahtani, 2006". *Levant*, 39: 213-247. <a href="http://dx.doi.org/10.1179/lev.2007.39.1.213">http://dx.doi.org/10.1179/lev.2007.39.1.213</a>.
- Wilkinson, T.J., Galiatsatos, N., Lawrence, D., Ricci, A., Dunford, R. and Philip, G. (2012): "Late Chalcolithic and Early Bronze Age Landscapes of Settlement and Mobility in the Middle Euphrates: A Reassessment". *Levant*, 44 (2): 139–185. <a href="http://dx.doi.org/10.1179/0075891412Z.0000000007">http://dx.doi.org/10.1179/0075891412Z.00000000007</a>>.
- Willkomm, H. (1992): "Radiokohlenstoffdatierungen". In M. R. Behm-Blancke (ed.): *Hassek Hoyuk. Naturwissenschaftliche Untersuchungen und lithische Industrie.* Istsanbuler Forschungen, 38. Ernst Wasmuth Verlag. Tubingen: 135-141.
- Woolley, C.L. and Barnett, R.D. (eds.) (1952): Carchemish. Report on the Excavations at Jerablus. III.

  The Excavations in the Inner Town and the Hittite Inscriptions. The British Museum. London.
- Wright, H. (2004): "The Earliest Bronze Age in Southwest Asia (3100-2700 BC)". *Journal of World Archaeology*.