

**CONSERVATION PROPOSALS FOR  
GÖBEKLİ TEPE ENCLOSURES**

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**by  
Keziban ÇELİK**

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# ABSTRACT

## CONSERVATION PROPOSALS FOR GÖBEKLİ TEPE ENCLOSURES

The conservation of archaeological sites is of great importance as they provide physical remains of past civilizations. Göbekli Tepe, which is one of the most important archaeological site in human history was included in the World Heritage List in 2018. Remains in Göbekli Tepe archaeological site are enclosures surrounded by circular or rectangular wall rows, and containing monolithic T-shaped pillars in the center and peripheral walls in two layers. The aim of this study is to examine the construction technique and relations between structural elements and to define conservation problems in order to develop conservation proposals. The method of the study is the evaluation of the data collected during the field survey together with the information given in the literature. In order to determine the similarities and differences between the layers, components and alignment characteristics of enclosures were defined, the relations between these components were examined. It was found that there is relationship between the diameter of enclosure and height of central pillar, and this ratio was same in two enclosures and close in another enclosure. The state of conservation and preservation conditions of the structural elements of the enclosures were examined and risk classes were determined. The problems observed in the structural elements were determined as crack, deformation, fracture, material loss, disintegration. It had been suggested to stabilize the walls to prevent further damage, to design and develop the support system for the pillars, and to carry out regular monitoring to detect possible damage or problems for components.

**Keywords:** *Göbekli Tepe, Prehistoric Remains, Construction Technique, Conservation Problems*

# ÖZET

## GÖBEKLİ TEPE YAPILARI İÇİN KORUMA ÖNERİLERİ

Arkeolojik alanlar geçmiş uygarlıkların fiziksel kalıntıları olarak belge niteliği taşıdıkları için bu alanların kazı sonrasında korunmaları büyük önem taşımaktadır. İnsanlık tarihindeki en önemli yerleşimlerden biri olan Göbekli Tepe 2018 yılında UNESCO Dünya Mirası Listesi'ne alınmıştır. Göbekli Tepe arkeolojik alanında yer alan kalıntılar, iki tabakada dairesel ve dikdörtgensel bir veya birden fazla duvar sırasıyla çevrili, merkezinde ve çeper duvarlarının içinde tek parça/monolitik T-şekilli dikilitaşlar içeren yapılardır. Bu çalışmanın amacı, Göbekli Tepe'de ortaya çıkarılan yapıların yapım tekniğinin, yapısal elemanlarının, yapısal elemanlar arasındaki ilişkilerin incelenmesi ve koruma önerileri geliştirmek için koruma sorunlarının tanımlanmasıdır. Çalışmanın yöntemi, literatürde verilen bilgilerle birlikte yerinde yapılan incelemeler sonucu toplanan verilerin değerlendirilmesidir. Tabakalar arası benzerlik ve farklılık gösteren özellikleri belirlemek için yapıların bileşenleri ve bu bileşenler arasında ilişkiler tanımlanmıştır. Bu incelemeler sonucunda yapının çapı ile merkez dikilitaş yüksekliği arasında bir ilişki olduğu ve bu oranın iki yapıda aynı olduğu, bir yapıda ise yakın olduğu bulunmuştur. Yapıların yapısal elemanlarının korunmuşluk durumu ve koruma şartları incelenerek, risk sınıfları belirlenmiştir. Yapısal elemanlarda gözlemlenen sorunlar, duvarlarda ayrışma, dağılma, malzeme kaybı, dikilitaşlarda eğilme, kırılma, sekilerde kırılma, çatlak, malzeme kaybı, döşemelerde aşınma olarak belirlenmiştir. Duvarlar için daha fazla tahribatı önlemek için stabilizasyon, dikilitaşlar için destek sisteminin projelendirilerek geliştirilmesi, döşeme için oluşabilecek hasar veya problemleri tespit için düzenli izleme yapılması önerilmiştir. Alanda tüm yapıların hava koşullarının ağır etkilerinden korunması için kalıcı üst örtü yapısı tasarlanmasının temel yaklaşım olması, korumada en az müdahale ile özgün durumun korunması düşünülmüştür.

**Anahtar Kelimeler:** *Göbekli Tepe, Prehistorik Kalıntılar, Yapım Tekniği, Koruma Sorunları*

*To those who never stop...*

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# CHAPTER 1

## INTRODUCTION

Prehistoric periods include the periods before the invention of writing. These periods are stone age (Paleolithic, Mesolithic, Neolithic), stone-copper age (Chalcolithic) and metal age (copper, bronze, iron). Stone Ages in Anatolia are described as Paleolithic era the period up to 10,000 BC, the Mesolithic era between 10,000 and 8000 BC, the Neolithic era 8000-5500 BC (Naumann 1910/2019; Yıldız 2019). Architectural remains from the prehistoric period to the present are diversified as domestic and megalithic remains. Domestic represents remains associated with housing such as huts, houses, village settlements and megalithic represents pillars, dolmens and temples.

Remains of domestic architecture in Anatolia were dated back to Proto-Neolithic Age (Özdoğan 1996) and Neolithic Age (Naumann 1910/2019). Proto-Neolithic exemplified Hallan Çemi in Batman while Neolithic exemplified Çayönü in Diyarbakır. Remains of non-domestic architecture are dated back to Neolithic Age in Anatolia, with the discovery of Göbekli Tepe (Schmidt 1995). Göbekli Tepe (9600 BC) is the oldest non-domestic remains in Anatolia and in the world. Göbekli Tepe which proved that people started to build structures that require advanced architecture during the transition from hunter-gatherer life to settled life in the Neolithic Age, had changed the known information on human history. It had been understood that people who lived around 10,000 BC had much more advanced lifestyle than was thought, and the knowledge to build advanced structures.

Until the discovery of Göbekli Tepe, there are oldest non-domestic remains known around the world are Atlit Yam in Atlit, Israel (7000 BC), Almendres Cromlechs in Alentejo, Portugal (6000 BC), Barnenez Neolithic Remains in Finistere, France (5000 BC), Nabta Playa in Egypt (4500 BC), Malta Megalithic Temples (4400 BC), Ziggurats in Mesopotamia in Iran, Iraq (4000 BC), Karnak Stones in Brittany, France (3300 BC), Caucasia Cromlechs in Armenia, Russia (3100 BC), Pyramids in Cairo, Saqqara in Egypt (2600 BC) and Stonehenge in Wiltshire, England (2500 BC).

Göbekli Tepe is a unique archaeological site with prehistoric architectural remains such as pillars and enclosures. This area is differentiated among all the other settlements

belonging to the Neolithic Age with its circular and rectangular planned structures at the bottom, T-shaped pillars located in the center and in peripheral walls, animal, human and geometric motives on the pillars in two different layers unearthed as a result of excavations until today. It was inscribed on the World Heritage List in 2018 because of its creative human genius, being one of the first manifestations of human-made monumental architecture, and being a collection of buildings that represent one of the most significant periods of human history (WHC 2018).

The construction techniques that developed in different regions with different materials have led to diversity in the field of construction technology. These construction techniques; as constantly evolving knowledge; have been shaped by the environment where the construction is located and the available materials for construction like stone, wood and mud.

Construction technique of prehistoric ruins is an important tool in understanding construction technology and architectural know-how. Understanding this technology will be effective in suggesting or reorganizing prehistoric ruins conservation approaches. Detailed construction technique knowledge of architectural remains will contribute to the available data and conservation proposals.

Concerning the conservation of archaeological sites in general; problems in legal/administrative, planning, documentation, structural and conservation practices are observed. Within the scope of this study, the structural and material problems in the remains unearthed in Göbekli Tepe are discussed. In order to define conservation proposals specific to the site, identification of conservation issues is important. In this direction, protection proposals might be developed by considering the conservation problems, state of preservation of assets, preservation conditions and risk conditions of the remains here. The European Standard “EN 17652 - Cultural Heritage - Assessment and Monitoring of Archaeological Deposits for Preservation in Situ” has been used as a guiding document for the examination of the remains at Göbekli Tepe.

## **1.1. Problem Definition**

Archaeological remains in Göbekli Tepe show Neolithic period building technology as the earliest and unique example of monumental (non-domestic) architecture. Architectural ruins in Göbekli Tepe are the remains of non-domestic

buildings with a circular and rectangular plan and T-shaped pillars in the center and peripheral walls. Remains in the area have been dated to three different periods as layer III – 9600-8700 BC, layer II – 8700-8200 BC and layer I after 8200 BC. In the researches of Göbekli Tepe, the architectural features, periods and construction techniques of the enclosures were examined in general. At present, there are nine Neolithic period enclosures that have been unearthed in the area, and these are dated to layer III and layer II. Examining the differences between the construction techniques of the enclosures in these two layers is necessary in order to determine the construction stages and the similarities and differences in the construction systems. On the other hand, structural and material problems observed in the remains should be defined related with construction technique in different layers and conservation proposals should be developed.

## **1.2. The Aim of the Study**

The aim of this study is to document the construction technique and the characteristics of the structural elements in detail, to examine the relationships between these features in order to determine the conservation interventions in the enclosure remains unearthed in Göbekli Tepe and to suggest conservation proposals by determining the conservation problems of the remains. In the study, the construction techniques of seven enclosures belonging to layer III and two enclosures belonging to layer II, design criteria and the relations of structural elements with each other were examined and analyzed in order to understand that nine enclosures in the area were built with a similar construction system (dimensions, relations and layouts of structural elements). Conservation strategy of Göbekli Tepe is analyzed. Conservation issues in management plan are stated, the objectives have been achieved or objectives to achieve were identified. After evaluating the existing approaches, a new proposal is suggested about the conservation approaches in management plan.

In this context, the area, flooring material, wall material, wall form, wall thickness, number of wall rows, pillar material and form, pillar dimensions, pillar numbers and forms belonging to the enclosures in layer III (enclosure with snake motive / A, enclosure with fox motive / B, enclosure with wild boar motive / C, enclosure with animal scenery motive / D, E enclosure, enclosure with dog motive / F, enclosure with

leopard motive / H) and layer II (enclosure with lion motive and G enclosure) in Göbekli Tepe Archaeological Site are defined.

Conservation problems in the area can be listed under three main headings. These problems are observed as environmental, structural and material problems. Controversies continue on the fact that the protective structure, construction was completed in 2017, did not provide full protection for the remains. These problems are defined in detail and conservation proposals were developed that will contribute to the existing conservation measures.

Research Questions of the study;

- How is the construction technique of the enclosures in Göbekli Tepe prehistoric remains defined?
- How is the construction technique of the enclosures in layer III and layer II defined?
- What are the similarities and differences between construction techniques of these enclosures?
- Is there a common structural system among the enclosures and among the layers?
- How should the data gathered from the study be used to preserve the construction technique of the remains?
- What are the conservation problems of Göbekli Tepe?
- What are the conservation approaches in Neolithic remains around the world having similar physical characteristics?
- What are the conservation proposals for Göbekli Tepe as contributions in conservation approach?

### **1.3. Methodology**

The method of the study was the analysis and evaluation of data collected via field survey. European standard titled as EN 17652 Cultural Heritage - Assessment and Monitoring of Archaeological Deposits for Preservation in Situ was used in order to define the conservation problems of remains.

In the scope of the study; the original structural characteristics, construction techniques, use of material in the enclosures and conservation problems of site have been

examined by means of field surveys, the obtained data have been analyzed and evaluated using cross case analysis methods.

The field survey was conducted in Şanlıurfa in January 2019 and January 2020 with the aim of obtaining measurements and to obtain visual data according to criteria defined by standard. The physical features of the remains were documented by taking photographs, sketch drawings and measurements.

The enclosures in the site were named after the motives on pillars as enclosure with snake motive/enclosure A, enclosure with fox motive/enclosure B, enclosure with wild boar motive/enclosure C, enclosure with animal scenery motive/enclosure D, enclosure with dog motive/F, enclosure with leopard motive/enclosure H, enclosure with lion motive/enclosure L, enclosure E and enclosure G (Figure 1.1).

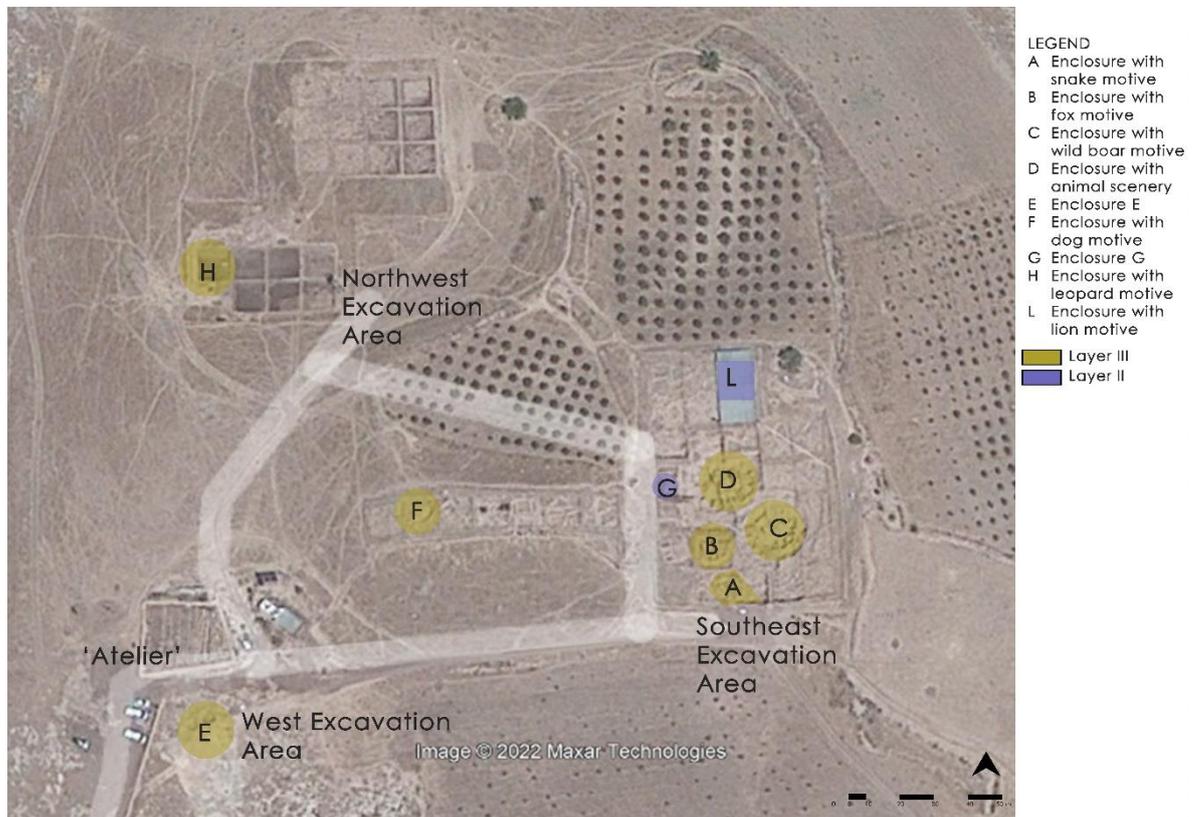


Figure 1.1. Name of enclosures in Göbekli Tepe  
(Source: Revised from Google, 2020)

This classification was based on the system in researches by Schmidt in 2002, the 2002 excavations at Göbekli Tepe (Southeastern Turkey) - impressions from an enigmatic site, Göbekli Tepe - Southeastern Turkey. the seventh campaign, 2001, in 2003 the 2003 campaign at Göbekli Tepe (Southeastern Turkey), in 2005 “Ritual Centers“ and the

Neolithisation of upper Mesopotamia, Göbekli Tepe excavations 2004, in 2006 Göbekli Tepe excavations 2005 (Schmidt 2002a; 2002b; 2003; 2005b; 2006). Enclosure A, enclosure B, enclosure C, enclosure D and enclosure L were associated with motives in pillars (Schmidt 1997; 1998; 1999; 2000). Yet, the enclosure E, enclosure F, enclosure G and enclosure H were not associated with any motive. In the thesis, enclosure F was called as enclosure with dog motive and enclosure H was called as enclosure with leopard motive depending on the motives in enclosures. Since there is no motive in enclosure E and enclosure G, they were named with letters (Figure 1.1).

The construction stages of the structures for layer III (six circular planned and one oval enclosures) and layer II (one rectangular and one circular enclosures), the forms of the structures, the area of the structures, floor materials, wall forms, wall materials, wall thickness, organization of wall rows, pillar materials, forms, organization, dimensions and the form of the motives on pillars are introduced. The relationships between the area, form, wall – pillar – floor characteristics (size, material, form) of the enclosures are examined, information are produced about the construction process and it is a contribution to previous studies. In this context, the enclosures in layer III (enclosure with snake motive / A, enclosure with fox motive / B, enclosure with wild boar motive / C, enclosure with animal scenery motive / D, E enclosure, enclosure with dog motive / F, enclosure with leopard motive / H) and layer II (enclosure with lion motive and G enclosure), the similarities and differences of the construction techniques of the enclosures are examined. The construction technique features of the circular and oval planned buildings in layer III and circular and rectangular planned enclosures in layer II are determined in terms of stylistic and dimensional variations and material usage, the formal features of the enclosures and the relations between the enclosure elements were determined. About construction technique, number of wall rows, wall thickness, pillar numbers, pillar dimensions, pillar bases and floor materials; about alignment characteristics form of enclosures, area of enclosures, form and location of motives are identified. For the relationships between these components; enclosure area with pillar numbers, pillar dimensions, number of wall row, central pillar dimension; central pillar dimensions with peripheral pillar dimensions, distance between central pillar, ratio of diameter or diagonal to central pillar, disposition of pillars with walls and angles between pillars were analyzed. An evaluation was made regarding the construction process. In

addition to providing information about the construction technique of the remains, current conservation problems in the area were determined and proposals were developed.

In the documentation phase, the plan drawings of remains were prepared as “.dxf” and three dimensional model was prepared as “.3ds” formats by computer aided design software like AutoCAD, ArchiCAD and Photoshop including the material, form and dimension data of floor, wall and pillars belonging enclosures. The 9 enclosures of Göbekli Tepe were documented in detail.

For the definition of enclosures, the table was prepared including structural elements and their material, form, dimension, motives on pillars. An example of empty table and a table filled with information belonging an enclosure in the site are given in the following (Table 1.1, Table 1.2).

Table 1.1. Characteristics of structural elements of enclosure

STRUCTURAL ELEMENTS	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH OR DRAWING
Wall					
Pillars in the peripheral wall bonding					
Pillars in the center					
Floor					
Object					

Table 1.2. Characteristics of structural elements of enclosure with wild boar motive (C)

(Photographs: K. Çelik)

STRUCTURAL ELEMENTS	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
Wall	Limestone	Circular planned	Thickness: 60 – 130 cm		
Pillars in the peripheral wall bonding	9 limestone pillars	T-shaped	Length: 62 – 190 cm Width: 23 – 90 cm Height: 235 – 355 cm	Wild boar, Bird	 
Pillars in the center	2 limestone pillars	T-shaped	Length: 180 cm Width: 55 cm Height: 500 cm	Fox	
Floor	Limestone smoothed from bedrock	Circular planned	D1: 30 m		
Object	Limestone	U-shaped		Wild boar	

The conservation problems of enclosures were defined as the titles of “state of preservation”, “preservation condition” and “risk class” based on European Standard titled as “Cultural Heritage - Assessment and Monitoring of Archaeological Deposits for Preservation in Situ (EN 17652)”. State of preservation of assets is stated as excellent, good, poor and very poor depending on standard (Table 1.3). SP stands for state of preservation of assets.

Table 1.3. State of preservation of assets classification

State of preservation of assets class (SP)	Description
SP 4	Excellent state of preservation
SP 3	Good state of preservation
SP 2	Poor state of preservation
SP 1	Very poor state of preservation

In the scope of the thesis, definitions of state of preservation of assets classification that not stated in the standard are defined as the following.

**Excellent state of preservation:** The remains have no structural damage or material deterioration.

**Good state of preservation:** The structural elements of remains have material deterioration that is not structural like hair crack and/or rarely material loss (missing part).

**Poor state of preservation:** The structural elements of remains have partial crack, deformation, partly material loss and/or frequently material deterioration such as fracture, hair crack, biological colonization.

**Very poor state of preservation:** The structural elements of remains have partial crack, deformation, disintegration, total material loss and/or frequently material deterioration such as fracture, hair crack, biological colonization.

Preservation condition class represents precautions and implementations done in the site for conservation of cultural assets. Preservation conditions (PC) are stated as excellent good, poor and very poor depending to the standard (Table1.4).

Table 1.4. Preservation condition classification

Preservation condition class (PC)	Description
PC 4	Excellent preservation conditions
PC 3	Good preservation conditions
PC 2	Poor preservation conditions
PC 1	Very poor preservation conditions

In the scope of the thesis, definitions of preservation condition classification not stated in the standard are explained with the parameters in below for enclosures in Göbekli Tepe archeological site.

**Excellent preservation conditions:** The conservation interventions (consolidation, rehabilitation, restoration) were implemented, maintenance and monitoring are ongoing.

**Good preservation conditions:** The conservation interventions (consolidation, rehabilitation, restoration) were implemented, maintenance and monitoring are not ongoing.

**Poor preservation conditions:** Temporary conservation precautions as temporary support and protective structure were implemented. Protective structure on the site was stated as not effective on moisture, wind, dust, snow and rain coming from the sides, it is defined as poor preservation based on observations in the field survey (Figure 3.2). Since the protective structure was not effective, it is defined as poor preservation.

**Very poor preservation conditions:** There is no conservation precaution.

Risk class are defined according to classifications of state of preservation and preservation condition of assets. There are four different risk class as low, medium, high and immediate risk of loss of significant heritage material. Classifications of risk class given in the standard are revised. Risk classifications according to standard are given below (Table1.5). The two columns on the right shows risk class and descriptions.

Table 1.5. Risk classification according to standard

(Source: CEN, 2021)

		State of preservation					Risk class (RC)	Description
		SP 4 Excellent	SP 3 Good	SP 2 Poor	SP 1 Very poor			
Preservation condition	PC 4 Excellent						RC A	Low risk of loss of significant heritage material
	PC 3 Good						RC B	Medium risk of loss of significant heritage material
	PC 2 Poor						RC C	High risk of loss of significant heritage material
	PC 1 Very poor						RC D	Immediate risk of loss of significant heritage material

In the scope of thesis, risk classification is defined as in the below (Table 1.6). Remains in good and excellent state having good and excellent conservation implementation or precautions are defined as in low risk. The remains in poor state or having poor preservation conditions are in medium risk. The remains in very poor state is in high or immediate risk of loss of significant heritage material. The two columns on the right shows risk class and descriptions.

Table 1.6. Risk classification revised in the scope of thesis

		State of preservation					Risk class (RC)	Description
		SP 4 Excellent	SP 3 Good	SP 2 Poor	SP 1 Very poor			
Preservation condition	PC 4 Excellent						RC A	Low risk of loss of significant heritage material
	PC 3 Good						RC B	Medium risk of loss of significant heritage material
	PC 2 Poor						RC C	High risk of loss of significant heritage material
	PC 1 Very poor						RC D	Immediate risk of loss of significant heritage material

Risk classification that are not stated in the standard are defined as below in the scope of the thesis.

**Low risk of loss of significant heritage material:** It occurs when the remains are excellent or good state of preservation having excellent or good preservation condition. The loss of significant heritage material is low.

**Medium risk of loss of significant heritage material:** It occurs either the remains are poor state of preservation having excellent, good, poor preservation condition or the remains are excellent or good state of preservation having poor preservation condition. The loss of significant heritage material is medium.

**High risk of loss of significant heritage material:** It occurs either the remains are excellent or good state of preservation having very poor preservation condition or the remains are very poor state of preservation having excellent or good preservation condition. The loss of significant heritage material is high.

**Immediate risk of loss of significant heritage material:** It occurs when the remains are poor or very poor state of preservation having poor or very poor preservation condition. The loss of significant heritage material is immediate.

## **1.4. Literature Review**

The literature review related with construction techniques of Göbekli Tepe enclosures, visualization of enclosures in Göbekli Tepe and Göbekli Tepe conservation problems and interventions are given below.

### **1.4.1. Literature Review of Construction Techniques of Göbekli Tepe Enclosures**

Literature survey was concentrated on definition of prehistoric remains, construction technique of prehistoric architectural remains, architectural features of Göbekli Tepe, written and visual documents related with conservation approaches of Göbekli Tepe. Excavation reports published annually, academic publications, management plan as written documents and restitutional illustrations and maps as visual materials were analyzed in literature survey.

Göbekli Tepe has been the subject of many studies as a prehistoric site that was unearthed by archaeological excavations started in 1994. The first study in which the site was recorded was the *Prehistoric Research in Southeastern Anatolia/Güneydoğu Anadolu Tarihöncesi Araştırmaları*, which was carried out jointly by the Universities of İstanbul and Chicago between 1963-1972 (Çambel and Braidwood 1980). Göbekli Tepe has been introduced in terms of archaeological data, settlement layers, construction technique, material usage, finds, use of site, settlement features, social structure and history with the works of Klaus Schmidt, who led the excavations in 1994, Lee Clare, who led the excavations after 2014, and Oliver Dietrich, Jens Notroff, Cihat Kürkçüoğlu, Çiğdem Köksal-Schmidt, Edward Bruce Banning, Celal Uludağ, who participated in the researches. The site was included in the UNESCO World Heritage List as a Cultural Site in 2018. The information about historical, archaeological, architectural, construction techniques of Göbekli Tepe prehistoric area have increased with the progress of archaeological excavations. Researches related with architectural characteristics and construction technique of enclosures in the site are given on the table chronologically. These are researches, excavation reports, articles and book chapters (Table 1.7).

Table 1.7. Researches related with architectural characteristics and construction technique

YEAR	RESEARCHER(S)	PUBLICATIONS	TYPE
1980	Çambel, Braidwood	Güneydoğu Anadolu Tarihöncesi Araştırmaları	Book
1995	Schmidt	Investigations in the Upper Mesopotamian Early Neolithic: Göbekli Tepe and Gürcütepe	Article
1996	Schmidt	The Urfa Project	Article
1997	Schmidt	Snakes, Lions and Other Animals: The Urfa Project 1997	Article
1998	Kromer, Schmidt	Two Radiocarbon Dates from Göbekli Tepe, South Eastern Turkey	Article
1998	Schmidt	Beyond Daily Bread: Evidence of Early Neolithic Ritual from Göbekli Tepe	Article
1999	Schmidt	Boars, Ducks, and Foxes – the Urfa-Project 99	Article
2000	Schmidt	Göbekli Tepe, Southeastern Turkey. A Preliminary Report on the 1995-1999 Excavations	Article
2001	Schmidt	Göbekli Tepe and the Early Neolithic Sites of the Urfa Region: a Synopsis of New Results and Current Views	Article
2002	Schmidt	Göbekli Tepe – Southeastern Turkey. The Seventh Campaign, 2001	Article
2005	Schmidt	Göbekli Tepe Excavations 2004	Excavation report
2005	Schmidt	Ritual Centers and the Neolithisation of Upper Mesopotamia	Article
2006	Schmidt	Göbekli Tepe Excavations 2005	Excavation report
2007	Schmidt	Carved Creatures from the Dawn of Agriculture: Göbekli Tepe, Turkey.” In <i>Discovery! Unearthing the New Treasures of Archaeology</i>	Article

cont. on the next page

Table 1.7. (cont.) Researches related with architectural characteristics and construction technique

2007	Schmidt	Taş Çağı Avcılarının Gizemli Kutsal Alanı GÖBEKLİ TEPE – En Eski Tapınağı Yapanlar	Book
2009	Schmidt	Göbekli Tepe Dünyanın En Eski Tapınakları	Article
2010	Schmidt	Göbekli Tepe – The Stone Age Sanctuaries. New Results of Ongoing Excavations with a Special Focus on Sculptures and High Reliefs	Article
2010	Schmidt	Göbekli Tepe Kazısı 2008 Yılı Raporu	Excavation report
2010	Schmidt	Göbekli Tepe Kazısı 2009 Yılı Raporu	Excavation report
2011	Banning	So Fair a House: Göbekli Tepe and the Identification of Temples in the Pre-Pottery Neolithic of the near East	Article
2011	Dietrich, Köksal-Schmidt, Kürkçüoğlu, Notroff, Schmidt	Dünyanın En Eski Tapınağı Göbekli Tepe	Article
2011	Schmidt 2011	Göbekli Tepe	Book chapter
2012	Dietrich, Köksal-Schmidt, Kürkçüoğlu, Notroff, Schmidt	Göbekli Tepe	Article
2012	Schmidt	Göbekli Tepe Kazısı 2010 Yılı Raporu	Excavation report
2013	Dietrich, Köksal-Schmidt, Kürkçüoğlu, Notroff, Schmidt	Göbekli Tepe: A stairway to the circle of boars	Article
2013	Schmidt	Göbekli Tepe Kazısı 2011 Yılı Raporu	Excavation report
2014	Becker, Clare, Dietrich, Köksal-Schmidt, Merbach, Notroff, Pant, Peters, Pöllath, Schmidt	Göbekli Tepe Newsletter 2014	Article
2014	Collins	Göbekli Tepe: Tanrıların Doğuşu	Book
2015	Özdoğan	Understanding Göbekli Tepe	Article
2016	Dietrich, Köksal-Schmidt, Kürkçüoğlu, Notroff, Schmidt	Göbekli Tepe, Anlage H	Article
2016	Schmidt	Göbekli Tepe A Neolithic Site in Southeastern Anatolia	Article
2017	Clare	Göbeklitepe Çanak Çömleksiz Neolitik A İlk Çanak Çömleksiz Neolitik B: MÖ 9600-8200	Article
2018	Karacalı, Urfaloğlu	An Evaluation of Restitutions Prepared for the Architecture of the Neolithic Site of Göbeklitepe and a Proposition	Article
2018	Clare, Kinzel, Sönmez, Uludağ	Göbekli Tepe : UNESCO Dünya Miras Alanı ve Değişen Yaklaşımlar	Article
2019	Clare, Yüncü, Uludağ	Göbekli Tepe.” In UNESCO World Heritage In Turkey	Article
2020	Haklay, Gopher	Geometry and Architectural Planning at Göbekli Tepe, Turkey	Article

Schmidt defined the circular planned enclosures at Göbekli Tepe as structures with T-shaped pillars up to five-meter-high in the center and smaller-sized pillars in the same form on the inner side wall of their walls. The pillars in the perimeter walls are oriented to the two central pillars (Schmidt 2009). The narrow edges of these pillars are positioned to face the center of the enclosure.

The prehistoric remains in the Göbekli Tepe archaeological site are dated to three different periods (Schmidt 2005b). These periods are listed as layer III, layer II and layer I from oldest to newest. Layer III has been dated to the early pre-pottery neolithic A period (9600 – 8700 BC), and layer II has been dated to the early pre-pottery neolithic B period (8700-8200 BC). Layer I is the layer containing the pre-pottery neolithic, medieval and more recent remains together (Schmidt 1995; 2005a).

As a result of the excavations started in the site, the enclosure called the Rock Temple in layer III was first unearthed in 1994 in the southwest of the hill, in the western excavation area. This structure was named enclosure E later (Schmidt 1995). Since 1996, work has continued in the southwestern excavation area, and enclosures A, B, C and D dated to layer III and enclosure with lion motive and enclosure G dated to layer II have been unearthed (Schmidt 1997; Kromer and Schmidt 1998; Schmidt 1999; 2000; 2002a; 2010c). The enclosure unearthed in the southwest excavation area as a result of the 2008 excavations was named enclosure F and dated to layer III. Enclosure H, which was unearthed in the northwest excavation area in 2010, was dated to layer III (Schmidt 2012) (Figure 1.2). Ground-penetrating radar and geomagnetic surveys including underground radar information has shown that there may be 20 more circular enclosures in the hill (Schmidt 2006; 2007a; 2012; 2010b; 2016; Dietrich et al. 2011).

In general, symmetrical pillars were found in layer III, varying in height from three meters to five meters (Schmidt 2005a). The central areas of the structures unearthed in the site are surrounded by six to 12 pillars, which are connected to each other by walls and low benches in front of the walls. This central area is highlighted by two pillars in the center (Schmidt 2007a; 2009; 2010a; Dietrich et al. 2011; Banning 2011, Dietrich, Köksal-Schmidt, Kürkçüoğlu, et al. 2013).

The enclosures and remains belonging to the middle layer, layer II, were found in the east of the hill. Architectural remains of this layer are stone walls, terrazzo-floored rooms, large stone rings, and T-shaped pillars (Schmidt 2000; 2006; Banning 2011; Dietrich et al. 2011; Clare 2017) (Figure 1.3). The height of the pillars is 1.5 m on average and it is stated that the structures were not covered. Fragments of destroyed sculptures were found in walls belonging most of the layer II unearthed in 2005 and thought to belong to the upper parts of the wall. These pieces had been interpreted as wild animal and human representations (Schmidt 2006).

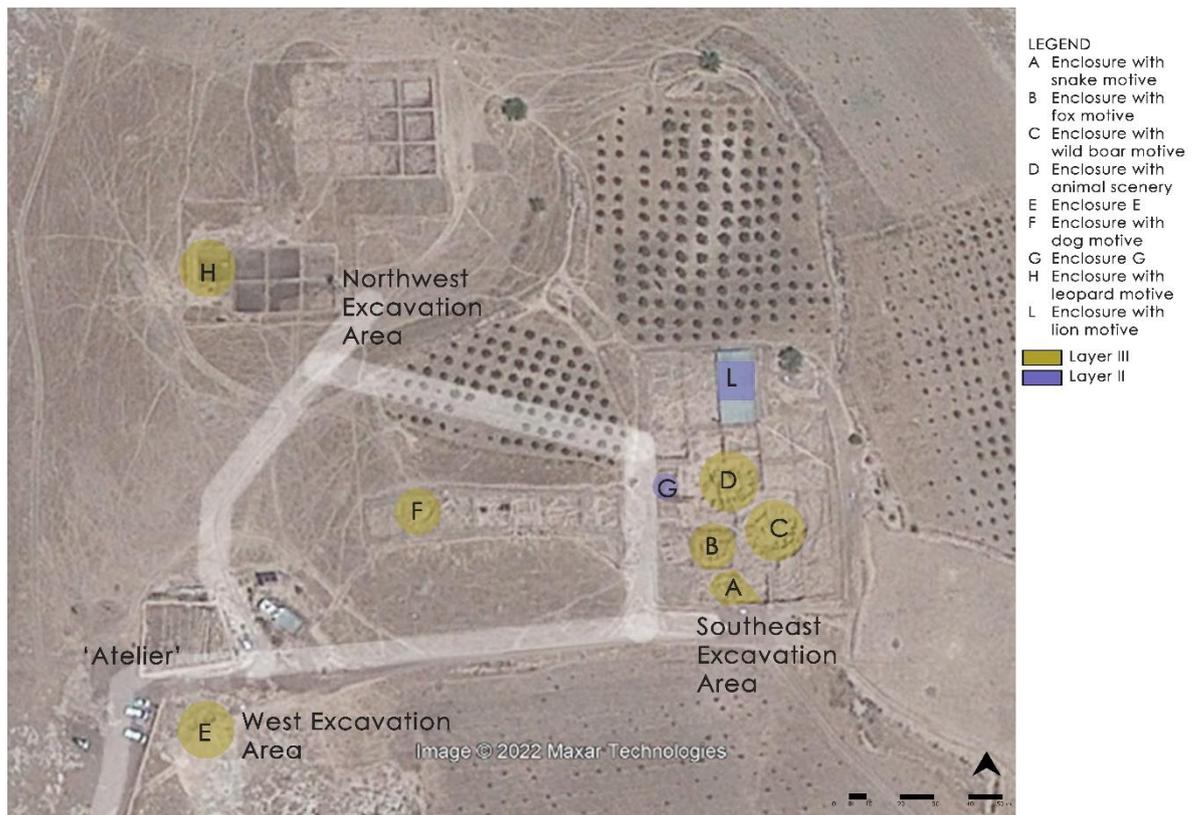


Figure 1.2. Site plan of Göbekli Tepe  
(Source: Revised from Google, 2020)

A T-shaped pillar, which was found in the quarry on the northern plateau of the hill, is documented with a head width of three meters and a height of seven meters (Schmidt 2007b) (Figure 1.4). It is thought that the limestone construction materials used in the enclosures were extracted from this quarry (Schmidt 2007b; Collins 2014; Clare 2017). Most of the stone processing materials used in the site are flint, and obsidian material is less common. The use of obsidian is intense in areas dating to the same period as Göbekli Tepe. As a result of the research conducted by Tristan Carter by examining the Çatalhöyük and Göbekli Tepe finds in 2007, it was determined that the source of the obsidian materials in Göbekli Tepe was the Cappadocia region (Schmidt 2010b).



Figure 1.3. Large stone rings  
(Source: Schmidt, 2000)



Figure 1.4. Stone pieces in quarry  
(Source: Schmidt, 2007b)

Existing studies describing the alignment characteristics and construction techniques of Göbekli Tepe prehistoric remains can be evaluated in four categories as studies examining the alignment characteristics and construction technique within the scope of the studies dealing with the settlement in general (Schmidt 1995, Schmidt 1997, Schmidt 2000, Schmidt 2002, Schmidt 2005a, Schmidt 2005b, Schmidt 2006, Schmidt 2009, Banning 2011, Schmidt 2011, Dietrich 2012, Schmidt 2012, Schmidt 2013, Becker 2014, Clare 2018, Haklay and Gopher 2020), studies defining the alignment characteristics by examining the enclosures specifically (Schmidt 1997, Schmidt 1998, Schmidt 1999, Schmidt 2000, Dietrich 2011, Dietrich 2016, Clare 2017, Clare, Tuna Yüncü, and Uludağ 2019), studies analyzing construction technique of enclosures (Schmidt 2007b, Schmidt 2010, Collins 2014, Schmidt 2016) and three dimensional drawings showing the arrangement features to determine the original states of the

enclosures (Yazman 2010, Mann 2011, Magli 2013, Sonnur Özcan 2014, Karacalı and Urfalıoğlu 2018, Çevik 2019, Birden Drawing - Google 2021) (Table 1.1). Information on the construction technique in previous researches were compiled for the enclosure A, B, C, D, E, F, G, H and enclosure with lion motive. This information related with enclosures is explained in the order of location, layer, plan characteristics, objects, construction technique and material for each enclosure.

#### **1.4.1.1. Enclosure with Snake Motive/Enclosure A**

Enclosure with snake motive/enclosure A is located in the southernmost part of the southeast excavation area. In the study published in 1997, it was mentioned that there were T-shaped pillars thought to be part of a large structure in the area (Schmidt 1997). Since there are many snake motives on one of these pillars, the enclosure was called the "enclosure with snake motive". The enclosure was dated to layer III. The pillars of the oval planned enclosure and the bench made of limestone were unearthed (Figure 1.5). It was stated that the main construction material of the walls and pillars is cut limestone and there is also reused material among them. It was determined that there was two-centimeter-thick mud mortar between the stones. (Schmidt 2010a). Also, plaster found in the enclosures contained loam charcoal and organic material (Dietrich and Schmidt 2010; Dietrich, Köksal-Schmidt, Notroff, et al. 2013). Schmidt states that there are not only rough stones on the wall, but stones reaching a length of 80 cm were carefully processed in the form of a loaf of bread (Schmidt 2007b).

Schmidt (1999) stated in his study that there were snake, bull, fox and crane motives on the pillars of enclosure A. There were double holes and cup-shaped cavities on the top of the pillars. U-shaped stone with remains on the ground was found in the central area of the enclosure (Schmidt 2007b; Banning 2011). In total seven pillars were identified in the enclosure. Two of these pillars are in the apse-like part in the northwest of the enclosure, while the others are in the east of it. It has also been determined that the pillars in the apse of enclosure A are defined as the central pillars (Schmidt 2016). It was understood that the enclosure with snake motive was younger than enclosure B, C and D, this enclosure was interpreted as a transitional period construction between layer III and layer II (Dietrich, Köksal-Schmidt, Notroff, et al. 2013).

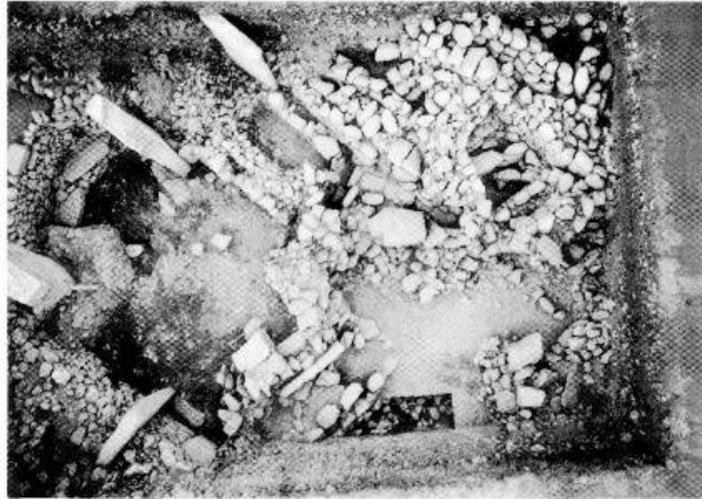


Figure 1.5. Pillars and bench of enclosure with snake motive (A)  
(Source: Schmidt, 2010b)

#### **1.4.1.2. Enclosure with Fox Motive/Enclosure B**

A stone wall and pillars were found in the northwest of enclosure A, which were determined to belong to another enclosure, and this enclosure was called enclosure B. There are fox motives on the pillars in the center, the enclosure was dated to layer III (Schmidt 1999). The circular planned enclosure is also known as the enclosure with fox motive. It is reported that there is a totem-like motive in the wall of the enclosure and that this statue is 38 cm wide and 187 cm high (Schmidt 2012). The floor of enclosure is defined as terrazzo floor (Schmidt 2006; Özdoğan 2015). An offering vessel made of limestone was found embedded in the terrazzo floor of the enclosure (Schmidt 2006) (Figure 1.6). Terrazzo floor was defined as a floor formed by abrading a mortar layer mixed with thick lime chips after hardening (Schmidt 2007b). Schmidt stated that the floor covering processing at Göbekli Tepe was standardized and there were oval-shaped mortars and cylindrical/conical pestles made of basalt in the area (Schmidt 2016).



Figure 1.6. Offering vessel  
(Source: Schmidt, 2007b)

### 1.4.1.3. Enclosure with Wild Boar Motive/Enclosure C

Enclosure C is located in the southeast excavation area, which began to be excavated after 1996. The floor of it, located to the east of the area belonging to Level III, was shaped by flattening the bedrock (Schmidt 2007b; Özdoğan 2015, Clare 2017). Not only the bedrock was flattened, but also the bases for the pillars were formed. The enclosure with wild boar motive, which is dominated by the wild boar depiction, has a circular plan and it is stated that the central area of the enclosure is surrounded by three or four concentric walls. The height of the destroyed central pillars of the building is thought to have reached five meters, according to the data obtained with the virtual completion (Dietrich et al. 2011). It is stated that the U-shaped monolithic stone uncovered in the south direction, on the outermost wall row of the building, was arranged to emphasize the entrance of the enclosure (Banning 2011; Becker et al. 2014). This arrangement has been similar to the entrance passage or dromo (a structure buried in the ground, accessed by a tunnel-like entrance) (Schmidt 2005b; Collins 2014). On the top of the left part of this stone, which was recovered undamaged, there is a motive look like wild boar (Schmidt 2010b) (Figure 1.7.a). A stair was found on the south edge of enclosure leading to this U-shaped stone, it has eight steps (Dietrich, Köksal-Schmidt, Kürkcüoğlu, et al. 2013) (Figure 1.7.b).

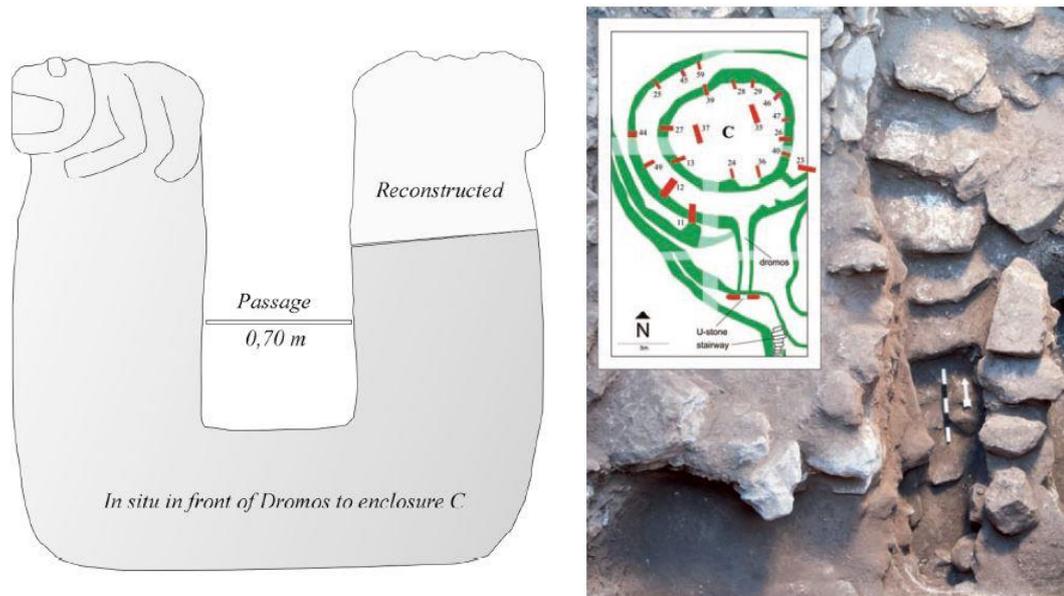


Figure 1.7. Drawing of U-shaped stone with motive on it, the location on map and stairs photograph (Source: Dietrich, Köksal-Schmidt, Kürkçüoğlu, et al., 2013)

#### 1.4.1.4. Enclosure with Animal Scenery Motive/Enclosure D

There are motives of human hands and arms on the central pillars of enclosure D, which is the northernmost of the enclosures in layer III. (Schmidt 2006). Two pillars in center and 11 pillars in periphery were unearthed. Many animal motives were found on the pillars on the periphery. The floor of the enclosure was formed by leveling the bedrock (Schmidt 2012; Clare 2017).

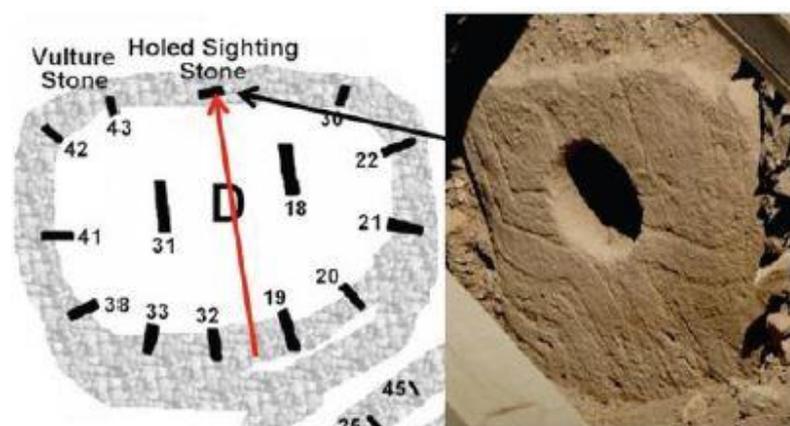


Figure 1.8. Holed stone in enclosure D (Source: Collins, 2014)

It has been determined that the central pillars of enclosure D, which is the largest enclosure in the area, have a depth of 15 cm in the base (Schmidt 2012). The height of central pillars belonging to enclosures reaches up to 5.5 meters (Dietrich et al. 2011). A holed stone was found in the north of enclosure (Dietrich et al. 2012; Collins 2014) Collins stated as the holed stone is aligned with Deneb star as suggested by Rodney Hale (Collins 2014) (Figure 1.8).

#### **1.4.1.5. Rock Temple/Enclosure E**

The first enclosure unearthed in 1995 was identified as the Rock Temple located in the southwest of the hill, it was stated that the enclosure was carved into the rock (Schmidt 1995). This enclosure called enclosure E recently, has circular plan. On the floor of enclosure, there is a bench encompassing the perimeter and two holed bases for pillars (Schmidt 1995; 1998) (Figure 1.9).



Figure 1.9. Enclosure E  
(Source: Leo, Merbach, and Pant, 2017)

It has been suggested that the floor of enclosure as neatly worked bedrock represents a kind of "pre-terrazzo" floor. Two oval chambers carved into the bedrock were found at a depth of two meters to the northwest of the enclosure. In one of these oval rooms, a five-step staircase and a cone-shaped altar-like element of about 80 cm carved from the bedrock were observed (Schmidt 1995).

#### **1.4.1.6. Enclosure with Dog Motive/Enclosure F**

In 2008 excavation report, Schmidt reported that a new enclosure was found to the southwest of the excavation site. It was stated that this circular planned enclosure was called enclosure F and dated to layer III (Schmidt 2010b). One of the different characteristics of this enclosure is the orientation of the pillars in the center. The central pillars are arranged in the southwest direction. Most of the pillars of enclosure F have hand and arm motifs, one of the pillars unearthed in broken condition has an animal motive from the canid family (Schmidt 2010b). It was determined that the inner part of the stone bench surrounding the interior of enclosure F was only filled with soil (Schmidt 2012; 2010b).

#### **1.4.1.7. Enclosure G**

The first findings related to the enclosure are the wall row and pillar remains unearthed in 2007 (Schmidt 2010b; 2010c). The enclosure was dated to layer II, however it was also stated that it may belong to layer IV, which is older than the existing layers and whose existence cannot be clarified (Schmidt 2011). Only east section of enclosure was unearthed. Two pillars belonging to the enclosure were unearthed. Between these two pillars, a channel-like element made of limestone, whose base was inclined from east to west, was found. The function of the element is unknown (Schmidt 2010b).

#### **1.4.1.8. Enclosure with Leopard Motive/Enclosure H**

The enclosure remains unearthed on the northwest hill since 2010 constitute enclosure H. In 2010, the head of a pillar belonging to the enclosure was unearthed (Schmidt 2010c). The circular planned enclosure has a depth of three meters and was dated to layer III (Schmidt 2012). Well preserved clay plaster was found on some parts of the walls of the enclosure. 9 pillars were unearthed in the enclosure, and there are motives containing lions and leopards on the pillars. It is thought that the entrance to the enclosure was provided with a ladder-like element found in the enclosure. It was also stated that the enclosure may have an elliptical plan (Dietrich et al. 2016).

#### 1.4.1.9. Enclosure with Lion Motive

During the excavations continuing in the southeast of the hill, a rectangular enclosure with a terrazzo floor was found. Total of six pillars were unearthed in the enclosure. Since there are the lion motives on the pillars, the enclosure was called the enclosure with lion motive/lion pillar enclosure (Schmidt 1997) (Figure 1.10). The enclosure with lion motive was described as a cell-like structure embedded in a mound (Schmidt 2000).

The floor of the enclosure is covered with limestone fragments, which are thought to belong to the upper cover. Basalt mortars and limestone slabs were also found in enclosure with lion motive, thought to be a bench. The enclosure has a staircase-like structure leading up from a terrazzo floor to a raised bench, on which a relief depicting a woman was found. The stones that make up the wall are defined as rough cut stones (Schmidt 2007b).

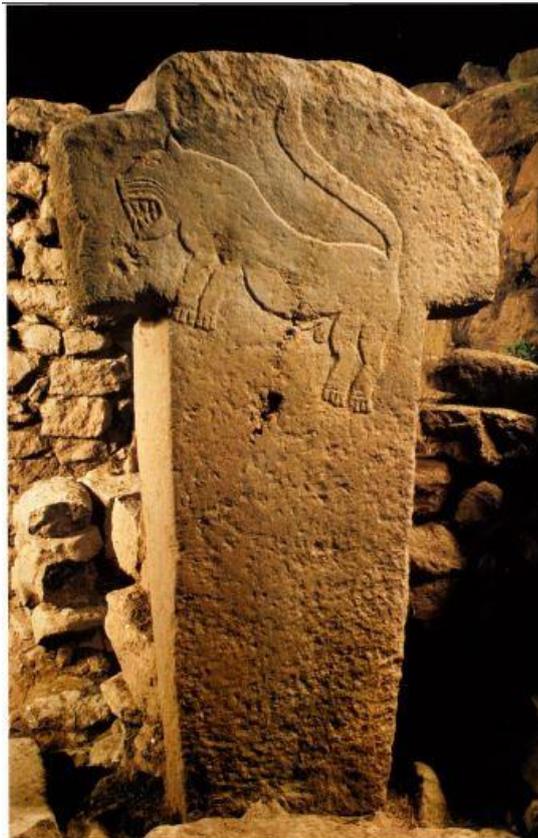


Figure 1.10. Lion motive on pillar  
(Source: Schmidt, 2007b)

Remains in Göbekli Tepe are defined as monumental stone circles, T-shaped pillars, megalithic U-stones, large stone rings and door-like stone frames different from other sites (Akarçay, Demirköy, Çayönü, Hallan Çemi, Hamzan Tepe, Körtik Tepe, Nevali Çori, Sefer Tepe, Karahan, Kilisik, Urfa-Yeni Yol) (Schmidt 2005b).

It is still not known clearly whether the roof of the enclosures exists or not. Schmidt stated that the enclosures were arranged as open temenoi (sacred open space) without a cover (Schmidt 1999). It has been suggested that the pillars in the center could serve as a support for this overlay, since the circular planned enclosures dated to layer III may have upper covers (Banning 2011) (Figure 1.11). Clare, on the other hand, stated that the enclosures could have been used both open and enclosed during their long lifetime (Clare 2017).

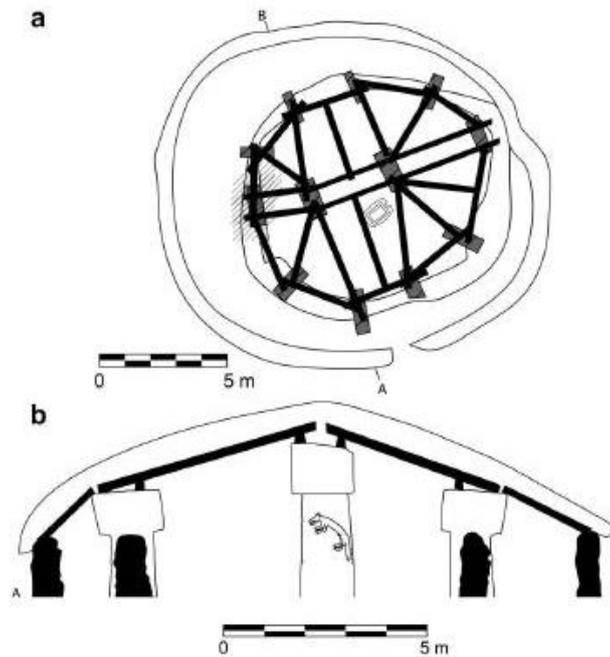


Figure 1.11. Conjectural drawing of theory by Banning  
(Source: Banning, 2011)

Haklay and Gopher evaluated the top view of the enclosures unearthed in Göbekli Tepe and the geometry of the arrangement (Haklay and Gopher 2020). It is stated that enclosures B, C and D located in the main excavation area were planned together and initially built as a whole. In addition, it is stated that the central pillars of enclosure B and C are located at the lower edge of the equilateral triangle. It has been argued that this form shows a hierarchy between enclosure B, C, and D, and that this hierarchy emphasizes

enclosure D (Figure 1.12). The remains of U-shaped stone in the floor of enclosure A was interpreted as symmetrical pair of U-shaped stone in enclosure C (Haklay and Gopher 2020).



Figure 1.12. Analysis related with the planning of enclosure B, C and D (Source: Haklay and Gopher, 2020)

After 2011, as a result of the soundings made at different points of the area, the deep structure carved into the rock, which emerged in the northwest of the area, has been interpreted as a cistern. The partially excavated pit has a diameter of eight meters and a depth of 2.8 m. The oval-planned, multiplying structures found in the pit to the northwest of the hill, a workshop area, a few hearths, findings of stone and bone bead production, and remains containing dense bone tools were interpreted as traces of domestic use (Clare et al. 2018).

These data concerning partial alignment characteristics and construction technique of remains in Göbekli Tepe is related with materials of wall, pillar, pillar height and floor material.

In the scope of this thesis, characteristics of enclosures such as enclosure area, wall material, wall form, wall thickness, wall bonding, wall row number, pillar material, pillar form, pillar base, pillar dimensions, distance between pillars, floor material, floor form and construction process, form of motives, location of motives belonging to layer III and layer II are introduced and the unique characteristics that needed to be conserved are highlighted.

## 1.4.2. Review of Visualizations/Restitutions of Göbekli Tepe

The visual studies of the remains unearthed in Göbekli Tepe were prepared as 3D reconstruction drawings or introductory visuals of the remains in the area. These studies are analyzed in terms of the number of enclosures, environmental layout, construction technique, material usage and size by comparing them with the situation occurred after excavations.

The image prepared by Fernando Baptista was featured in the study titled *The Birth of Religion: The World's First Temple*, published in *National Geographic Magazine* in 2011. In this study, enclosure C and D of layer III were modeled (Figure 1.13).

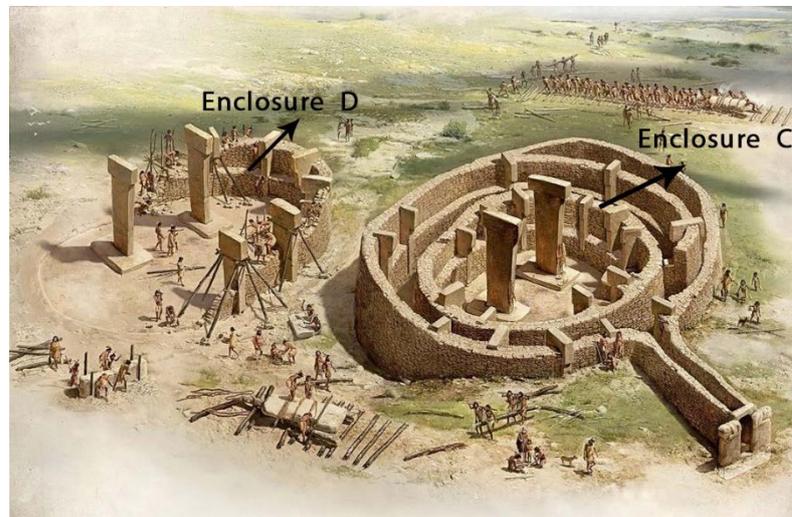


Figure 1.13. Göbekli Tepe model by Fernando Baptista  
(Source: Mann, 2011)

Layer III should contain enclosure B, C, and D (Schmidt 2007b). However, enclosure B was not shown. Enclosure D was determined as older than enclosure C (Dietrich, Köksal-Schmidt, Notroff, et al. 2013). According to the dating studies, it would be appropriate if enclosure D was finished and then enclosure C was being built. In this drawing, it is shown that the pillars are one piece, the wall bonding and the use of building materials (Figure 1.13).

The model prepared by Erhan Balıkçı was done for a poster published in the *TÜBİTAK Bilim ve Teknik Dergisi* (Sonnur Özcan 2014). Two enclosures belonging to layer III, enclosure C and D, were modeled (Figure 1.14). The entrance corridor of enclosure C is not shown. It is understood that the modeling shows the post-excavation

situation due to the filling material shown inside the enclosure and the fact that the enclosures are located lower than the surroundings. In this drawing, the walls and pillars are shown as one piece. The bonding of wall parts is not specified.

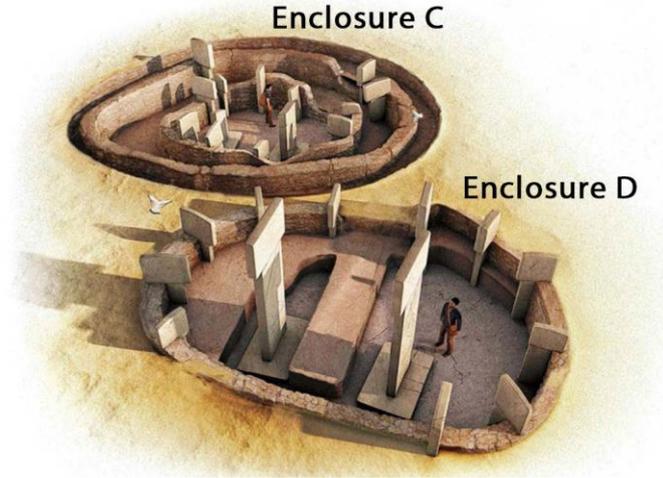


Figure 1.14. Göbekli Tepe model by Erhan Balıkçı  
(Source: Sonnur Özcan, 2014)

Enclosure B, C and D were modeled by the German Archaeological Institute (“Historia Stztuki” 2018). In this modeling, no information about the construction technique and material usage is visible. The parts shown in brown in the study are the remains unearthed as a result of excavation, and the parts shown in green are the parts modeled as complete (Figure 1.15). The thickness of the perimeter walls is shown thicker than the current situation.



Figure 1.15. Model by DAI  
(Source: “Historia Stztuki”, 2018)

In Abdurrahman Birden’s drawing, which is located in the Neolithic Age section of the Urfa City Museum, all enclosures in the area are not shown (Google 2021). The

location and relative placement of the enclosures shown are not consistent with the information obtained after excavations. Since it is known that rectangular planned enclosures were built after all circular planned enclosures, all circular planned enclosures should be shown as finished construction. Ground levels of circular enclosures (Enclosure C in the back and D in front) and rectangular planned enclosure (located on the left) are shown incorrectly. The rectangular planned enclosure should be located higher. Material usage for pillars and wall are visible (Figure 1.16).

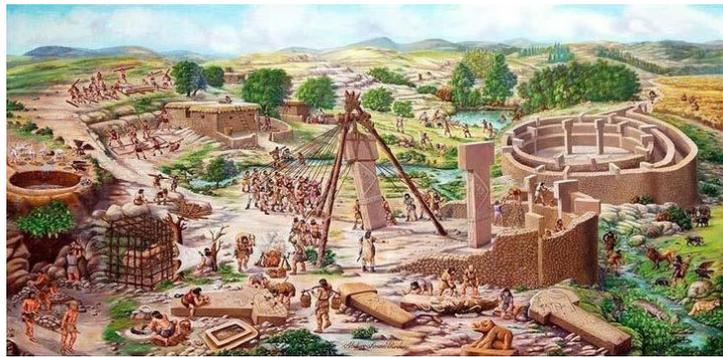


Figure 1.16. Abdurrahman Birden Drawing  
(Source: Google, 2021)

In the conception prepared by Eren Topçu for the documentary *Göbekli Tepe: The First Temple of the World*, only one enclosure is shown (Yazman 2010). Plan characteristics of the single enclosure shown are not compatible with any of the structures unearthed. The representation of the outer walls did not reflect the current situation (Figure 1.17). The stones appear stacked on top of each other, whereas in the current situation a certain pattern of wall bonding is seen. An entrance opening to the enclosure is shown, but a defined entrance opening is not revealed in any of them.



Figure 1.17. Illustration prepared by Eren Topçu  
(Source: Yazman, 2010)

In the drawing of astrophysicist and archaeoastronomer Giulio Magli's "World's oldest temple built to worship the dog star", only one of the enclosures in the area, enclosure C, is modeled (Magli 2013). This model was created to investigate the relationship between the directions of the central pillars and the Sirius stars. According to the human scale given in the model, the dimensions of the walls and pillars are shown higher and the sizes of the stones of the walls are shown smaller than the current situation.

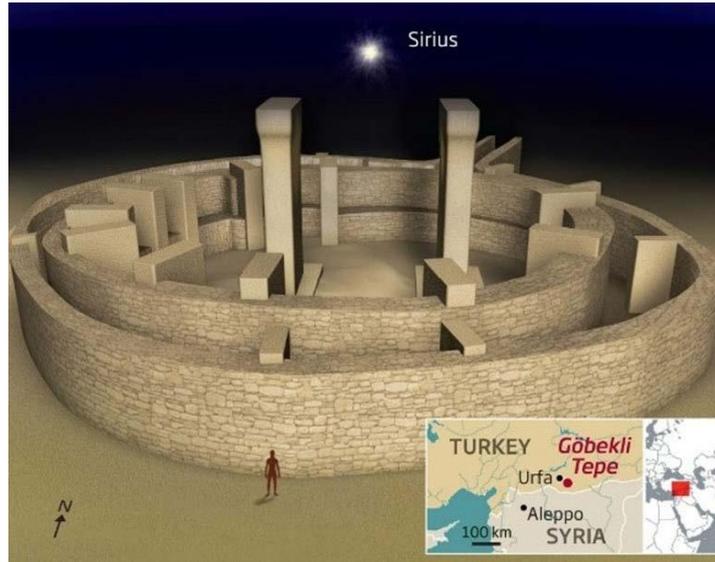


Figure 1.18. Illustration prepared by Giulio Magli  
(Source: Magli, 2013)

In the drawing prepared by Atlihan Onat Karacalı for the study "An Evaluation of Restitutions Prepared for the Architecture of the Neolithic Site of Göbeklitepe and a Proposition" all enclosures in southwest excavation area, enclosure A, B, C and D in Layer III were modeled using the 3DS Max program (Karacalı and Urfalıoğlu 2018). In the study, scale modeling of the remains documented as a result of the excavation was made. The model based on real measurements reflects the morphological characteristics. In this study, the pillars are shown as abstracted without motives (Figure 1.19). While the pillars are shown as they are in the model, the wall bonding is not shown. There are differences in the current situation in floor coverings. Limestone is seen in enclosures B, C and D, and terrazzo flooring is seen in enclosure A. This difference is not seen in the model. (Karacalı and Urfalıoğlu 2018).

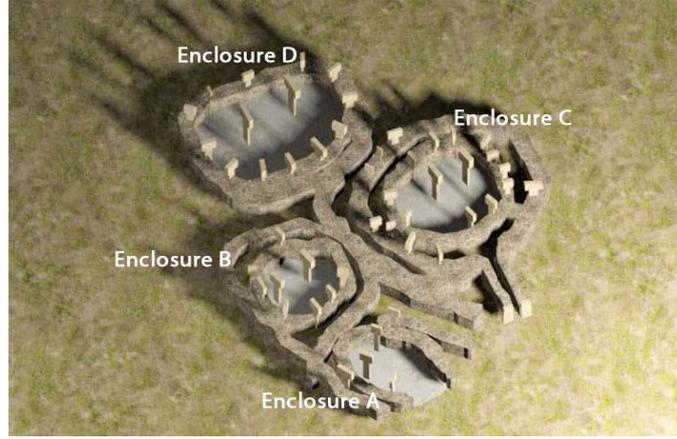


Figure 1.19. Model prepared by Karacalı  
(Source: Karacalı and Urfalıoğlu 2018)

İpek Fatma Çevik modeled the Göbekli Tepe ruins using polygonal modeling technique to show them in a virtual reality environment (Çevik 2019). Circular enclosures A, B, C and D in Layer III were modeled (Figure 1.20). There is no detailed material representation or emphasizing material differences. The finds unearthed after the excavation were modeled, and no data on the original state of the area was shown.

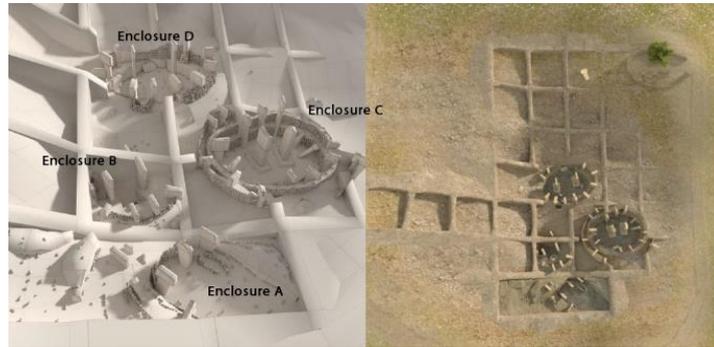


Figure 1.20. Model prepared by İpek Fatma Çevik  
(Source: Çevik, 2019)

There is no detailed information about the material differences and dimensions of structural materials in these models. Also the motives on pillars are not shown. There is no information about the other enclosures in the rest of the hill belonging to layer II and layer III such as enclosures E, enclosure with dog motive (F), enclosure G, enclosure with leopard motive (H) and enclosure with lion motive.

In the drawings, model prepared and used within the scope of this study, information about the construction materials, material differences, construction order,

motives and layers in the area will be included regarding the remains in the Göbekli Tepe Archaeological Site.

### **1.4.3. Literature Review Concerning Göbekli Tepe Conservation Problems and Conservation Interventions**

Göbekli Tepe was mentioned in the scope of Southeastern Anatolia Prehistoric Research Project conducted by Istanbul University and Chicago University in 1963. Stone tools were encountered on top of the hill. The site was recorded as one of the stone age settlements (Çambel and Braidwood 1980).

Klaus Schmidt, who worked the excavation of Nevalı Çori in 1992, saw two stones previously delivered to the museum, while investigating the area with his teacher Harald Hauptmann. In 1993, excavations started and they found a piece of wall on the western part of the hill after one month of work. In 1994, they found one of the pillars that had been embossed on one of the large pillars. Excavations at Göbekli Tepe continued in 1995 in collaboration with Harald Hauptmann of the German Archaeological Institute and the Şanlıurfa Museum (Schmidt 1996).

The area was declared a First Degree Archaeological Site by the decision of the Diyarbakır Regional Council for the Protection of Cultural and Natural Assets dated 27 September 2005 and numbered 422. The area surrounding the First Degree Archaeological Site was determined as Third Degree Archaeological Site by the decision of the Regional Council of Şanlıurfa Conservation of Cultural and Natural Heritage dated February 23, 2016 and numbered 1940.

Since 2010, preparations have been made for the top cover to the southeast of the area. In 2012, infrastructure works for the use of visitors in the area started and the environmental limit of the area to be visited was determined. In 2014, entry to the area with tickets was initiated. Completed in 2012, the top cover was designed by the German Archaeological Institute (Deutsches Archäologisches Institut), and the construction was carried out by the International Consultant Services Corporation. The construction of the protective structure was started in 2016 and completed in 2017.

Main management issues are defined in Göbekli Tepe Management Plan prepared in 2017. Providing a framework for the establishment of a sustainable site management system. These issues are 4 general areas as site management system, conservation of the

site and its setting, excavation and research, development and use (Leo, Merbach, and Pant 2017). The key management issues were summarized:

### **Institutional Framework**

The institutional framework for site management at Göbekli Tepe provides for the establishment of a dedicated administrative set-up, functional at the site/local level, for responding to the immediate organizational needs and decision-making within the site management system.

### **Resources**

To put Göbekli Tepe's site management system into operation and ensure that it functions efficiently and sustainably in the long run, three kinds of resources are required. These are: human resources; intellectual resources and financial resources. However, these resources are insufficient for operating the envisaged site management system. Adequate levels of staff and regular budget is extremely important for ensuring that Göbekli Tepe's site management system is made operational and runs sustainably.

### **Monitoring and Reviewing the Plan**

An operational and sustainable site management system encompasses three main inter-related processes – planning, implementation and monitoring. These processes should be implemented in a sequential, cyclic and transparent manner in the context of all activities related to the management of the key stakeholder interests, and are facilitated by the institutional framework of and resources allocated to the site management system.

### **Monitoring Indicators**

The purpose of monitoring is to assess how the values of the proposed World Heritage Site are being maintained over time and to measure whether the objectives of the Management Plan are being achieved.

Key monitoring indicators were produced for the Göbekli Tepe Archaeological Site. These are categorized under the titles of protection and enhancement of the landscape setting; planning and policy; conservation of the archaeological site, excavation and research; visitor management sustainable tourism and education and management.

Protection and enhancement of the landscape setting includes:

- Condition Survey as the evaluation of the current condition, quality of the settings (impacts of climate, tourism, Outstanding Universal Value, significance, authenticity and integrity)

Conservation of the archaeological site includes

- Existence of:
  - Conservation Plan
  - Landscape Design Project
  - Risk Management Plan
- Conservation Field Assessment
- Reduction of conservation backlogs
- Numbers of materials repaired, salvaged and/or re-used
- Condition of mortared walls
- Stability of excavation profiles
- Stability of T-shaped pillars
- Chemical interference with archaeological evidence
- Impact of wind rain and snow

Excavation and Research

- Existence of Research Plan
- Fulfilment of the objectives of the plan
- Number of the research projects, Publications
- Size of the excavation area
- Number of the people working in Göbekli Tepe (incl. academic personnel, volunteers, local people, etc.)
- Amount of resource for the research
- Proportional Distribution and Annual Change in research resource
- Existence of Data collecting/Archiving system
- Frequency and method of Regular dissemination of excavation results

Visitor Management, Sustainable Tourism and Education

- Existence of Visitor Management Plan
- Number of visitors to Göbekli Tepe
- Profile of the visitors
- Distribution of visitors in time
- Length of the visits
- Excess of the carrying capacity
- Quality of the visit/satisfaction of the visitors

- Existence of regular environmental audit of visitor facilities
- Tourism revenues
- Impact of tourism on local community
- Evaluation of the adverse effect of tourism on site
- Amount and Origin of Educational Resources
- Type and frequency of educational activities/publications
- Organizations involved in education
- Existence of Monitoring Plan

#### Management

- Collaboration level of all stakeholders
- Existence of budget shortcuts or surplus
- Fulfilment level of the objectives
- Sufficiency of personnel

### **The Boundary of the Proposed World Heritage Site and its Buffer Zone**

Some of the attributes of Göbekli Tepe, such as visual inter-relationship between the archaeological tell, the plateau and its setting as well as the stillness and sense of remoteness experienced at the entire site, are closely associated with the unspoilt condition of the site's setting. Therefore, for retaining the cultural significance of Göbekli Tepe it is important to ensure that an appropriate area of the site's setting and its character is conserved. To do so, a buffer zone has been identified for Göbekli Tepe. This buffer zone, which also includes the 3<sup>rd</sup> degree Archaeological Conservation Site, is meant to serve as a protection mechanism for the setting of the tell and the surrounding limestone plateau against external threats to the cultural significance of Göbekli Tepe.

### **Development Control**

Since Göbekli Tepe is a '1<sup>st</sup> degree Archaeological Conservation Site' any interventions at the site unrelated to excavation and research are already prohibited. Considering the rapid urban development and increase in building activities seen in the region in recent years and that the visual inter-relationships between the tell, plateau and its setting are important attributes of the site, restrictions on development and construction activities within the site's setting (or the buffer zone), as well as in the area immediately outside it, are required to be developed as a key tool in the long-term protection of the site's cultural

significance. These should be developed within the existing legal and/or policy framework

### **Condition and Protection of Archaeological Remains within the Site**

The excavated remains at Göbekli Tepe – consisting of several layers of historic building materials dating to different time periods of the site’s long history – are currently in various

states of conservation. This is a result of factors such as the length of time that has passed since their excavation, nature of the materials exposed as well as past conservation interventions. The varying degree of fragility and deterioration of the archaeological fabric requires its conservation to be addressed in a systematic manner. Furthermore, an approach needs to be developed which ensures that steps are taken towards the long-term conservation of all excavated archaeological components and other physical attributes of the site apart from the excavated archaeological remains. Therefore, the site requires a comprehensive Conservation Plan in order to ensure that the authenticity and integrity of the attributes of Göbekli Tepe are conserved for future generations. The Conservation Plan should be developed based on the understanding of the cultural significance of Göbekli Tepe and its vulnerabilities as well as provide an overarching conservation philosophy which will enable the cultural significance to be retained in the site’s future development and use as an archaeological resource for research and as a tourism destination for economic and community development.

### **Landscape Design Concept**

Göbekli Tepe in its entirety tells the history of the Neolithic enclosures discovered and apart

from the excavated archaeology the site has a range of qualities essential for the holistic understanding and experience of its cultural significance. Important attributes which impart a holistic understanding of the cultural significance of the site include the form and substance of the limestone plateau; the natural quietness and spirit of the place; the visual inter-relationship between the archaeological tell, the plateau and its setting as well as younger elements of the site such as the Mulberry tree on top of the tell. In this context, establishing a holistic Landscape Design Concept for coordinated development of the landscape of the tell and the limestone plateau could be instrumental in enhancing the understanding of the numerous attributes of Göbekli Tepe.

### **Research-Conservation Balance**

The multi-layered stratigraphy of Göbekli Tepe may necessitate the removal of upper layers of archaeological evidence in order to undertake research at the lower levels. However, since such an approach also means irreversible destruction of the younger historic fabric, careful judgement must be exercised when undertaking such excavations in the future. Thus, excavation at the site should not entail complete excavation of known archaeology but rather focus on as much excavation as necessary for improving the understanding of the significance of the site but as little as possible. It is necessary to ascertain that the need for conducting research at Göbekli Tepe does not overshadow the need for leaving parts of the site undisturbed and/or conservation of already exposed/excavated features, including ensuring their stability in the long-run.

### **Excavation-Conservation Sequence**

Regular excavations undertaken at Göbekli Tepe since 1995 have been instrumental in uncovering multiple historic layers of the site step by step, which have contributed greatly to the understanding the site and its supra-regional importance. But conservation measures implemented at the site in the past could not address the excavation-conservation sequence in an equally comprehensive manner. As a result, conservation backlogs are visible at the site. However, in accordance with international standards, preservation of the site and its excavated archaeological components – both movable and immovable – in an “as-found” state, as far as possible, is an important obligation for members of any excavation and research team and conservation backlogs must be avoided. Undertaking appropriate and systematic conservation works parallel to the excavation activities should be at Göbekli Tepe, and in the future, excavation and conservation activities should be undertaken in a carefully phased and sequential manner.

### **Storage of Archaeological Finds, and Data Management**

To ensure that decision-making is effective and balances the conservation, research and economic interests in the site, it is important that all relevant data is easily accessible – physically and intellectually, for the site administration team and management personnel as well as other experts responsible for addressing the issues stemming from the key stakeholder interests. Better transparency of the structured approach towards collection and dissemination of information would be instrumental in improving coordination between all the activities taking place at the site.

### **Management of Visitors within the Site**

A Visitor Management Plan is thus required to achieve balance between the tourism management requirements for offering an informative and enjoyable experience to the visitors, generation of economic profit through increase in tourism, the need for conservation of the attributes contributing to the cultural significance of the site, and continuing research for increasing knowledge and understanding of the site – has yet to be adopted. And guide the transformation of the site into a sustainable tourist destination which caters to the demands of increasing number of local visitors as well as national and international tourists

while respecting the cultural significance of Göbekli Tepe.

### **Baseline Visitor Survey**

Even though there has been a substantial increase in visitor numbers at the site in recent years, there is a lack of comprehensive information, and of corresponding facts and figures,

an understanding of these factors is necessary for ensuring that the transition of Göbekli Tepe into a cultural heritage site

### **Visitor Infrastructure**

Development of Göbekli Tepe as a tourist destination requires adequate visitor infrastructure to meet the requirements of the increasing number of visitors – including the physically challenged visitors – as well as mitigate the negative impacts of tourism on the attributes of the site. These may include components such as roads, parking, toilets, ticket counter, cafe/restaurant, observation platforms, pathways, signs, trails, waste disposal area, lighting and closed circuit television, and should be introduced based on an:

- (a) assessment of the additional infrastructure required on and off-site
- (b) understanding of the potential impact of their introduction on the overall cultural significance of the site

At present, works are underway to radically improve infrastructure at Göbekli Tepe catering specifically to the needs of visitors. In addition to the new permanent shelter structure, with its walkway leading to the most important part of the site, there is the construction of a new visitor center, located at the main entrance to the site, approximately one km west of the tell. This latter project, which is being produced by the official site sponsor, will include a state-of-the-art visitor experience with up-to-date information

boards and displays. These projects acknowledge an integrated approach towards development and maintenance of visitor infrastructure, i.e. they respect all obligations related to the conservation of the attributes of the site and prevailing and future research interests.

### **Presentation, Interpretation and Visibility of the Archaeological Remains and the Site**

Interpretation refers to “the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage site. These can include print and electronic publications, public lectures, on-site and directly related offsite installations, educational programs, community activities, and ongoing research, training, and evaluation of the interpretation process itself is essential to establish and implement a comprehensive approach towards site interpretation which assesses the need for and accordingly enhances the overall understanding of the attributes of Göbekli Tepe it should be designed in coordination with the Visitor Management Plan

#### **Site Promotion and Awareness – Raising**

Since Göbekli Tepe is envisaged to be developed as a visitor attraction in the region, a variety of site promotion activities have already been undertaken. These activities have not yet been

integrated into the framework of a bigger site development concept. For ensuring the development of the site as a sustainable tourism destination it is important that the site promotion activities are developed as an integral part of, or in accordance with, the comprehensive Visitor Management Plan these activities should be developed under the umbrella of a comprehensive site promotion strategy

#### **Community Involvement and Development**

Community involvement in the overall management of a cultural heritage site has proven benefits both for the long-term conservation of the site as well as sustainable development of the local communities. Involvement of the local community is already a part of the continuing excavation and research at Göbekli Tepe yet the systematic integration of the local communities is not fully achieved there is scope for integrating the local communities

in various other site management activities, such as conservation of the site’s setting and development of the site as a tourism destination.

In the scope of this thesis, risk classes were identified considering the state of preservation of assets and preservation condition by specifying the conservation problems of enclosures in Göbekli Tepe. Conservation proposals were developed according to the risk classes of remains.

## CHAPTER 2

### ANALYSIS AND EVALUATION OF ALIGNMENT CHARACTERISTICS AND CONSTRUCTION TECHNIQUES OF ENCLOSURES IN GÖBEKLİ TEPE

Göbekli Tepe Archaeological Site is located 15 kilometers northeast of Şanlıurfa, Turkey. It is located 2.5 kilometers east of Örencik Village. The altitude of the area is 785 meters and the height of the hill is 15 meters. The archaeological site is to the north of the Harran Plain, southwest of Karacadağ and south of the Taurus Mountains (Figure 2.1).

Göbekli Tepe consists of first and third degree archaeological sites. The first-degree archaeological site covers an area of 126 hectares and includes the hill, circular monumental structures, the plateau with traces of prehistoric stone quarry and the surrounding quarry areas (Figure 2.6). The third degree archaeological site is the area surrounding the first degree archaeological site and covers an area of 461 hectares. Proposal management area limit covers an area of 2306 hectares.

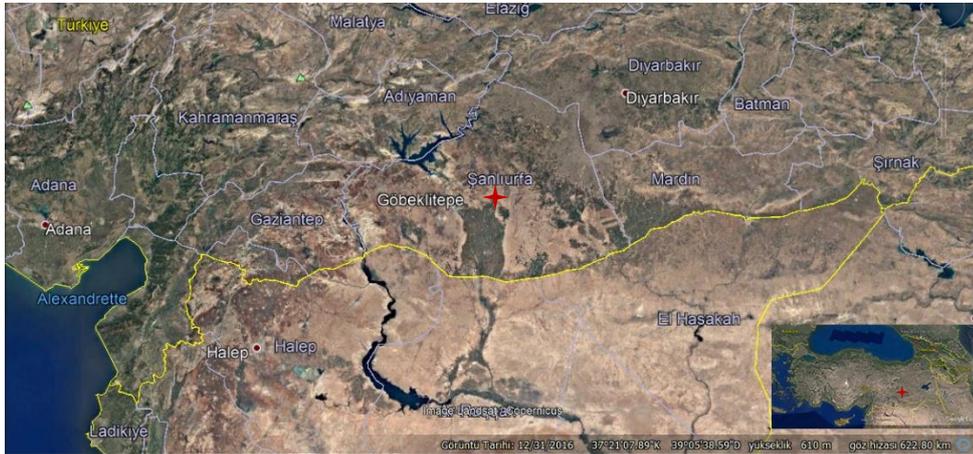


Figure 2.1. Location of Göbekli Tepe in Southeast Anatolia  
(Source: Revised from Google, 2020)



Figure 2.2: Göbekli Tepe before the protective structures were built  
(Source: Leo, Merbach, and Pant 2017)



Figure 2.3. Top cover of Göbekli Tepe protective shelter  
(Source: Leo, Merbach, and Pant 2017)

The Göbekli Tepe archaeological site is a research area that is currently being excavated. The hill is of great importance with its Neolithic remains at a height of 15

meters. The earliest discovered layers of these remains are referred to as layer III and layer II. Layer III is dated to the early pre-pottery Neolithic phase A (9600-8700 BC), while layer II is dated to the early pre-pottery Neolithic phase B (8700-8200 BC). Layer I is the layer where the material belonging to both the pre-pottery Neolithic period, the Middle Ages and the modern times is seen in a mixed way.

As a result of the excavations carried out in the main excavation area on the southern slope of the hill, 4 circular enclosures dated to layer III were revealed (Figure 2.2). Circular structures varying in width from 10 to 30 meters stand out with their T-shaped pillars. These pillars were connected to each other by stone walls and directed towards two larger pillars in the center. In the center pillars, there are motives such as hand and cloth pieces that are similar to human figure, and in the small pillars in the vicinity, there are motives that are likened to animal symbols. Monumental stone A-D structures are mentioned as the main architectural components of the area (Figure 1.2).

Geophysical surveys revealed that the monumental enclosures are not limited to the southern slope. It revealed another megalithic structure assigned to the Layer III. At one point, these structures appear to have been deliberately refilled and / or exposed to flooding by slipping of the slopes around the mound. Typically, enclosures are filled with a wide range of materials, primarily limestone rubble, but flint artifacts and large amounts of animal bones are also seen. Second, it may be due to the large-scale prehistoric feast in the region. The composition of the filler material, including animal sculptures, and stone plates, may suggest that ritual activities are associated with the filling process.

Contrary to the previous phase (Layer III), the enclosures of Layer II are rectangular, with stone walls measuring about 3m x 4m and mosaic-like floors. Smaller and fewer columns, or no columns at all. The existing T-shaped columns appear to be arranged symmetrically, with only two small central columns. The archaeological site includes the limestone plateau on which the megalithic structures of Göbekli Tepe were built. The expansive slopes of the plateau served as a quarry and workshop area in the Neolithic, and there are numerous traces of a quarry for Göbekli Tepe monuments. Archaeological research has uncovered numerous prehistoric quarries and workshops, including work pieces such as broken T-shaped pillars and rock-cut caverns, possible mixing areas for 'terrazzo' floors. There are also numerous work tools such as flint stones on the plateau.

There are many iconographic materials of high artistic quality, sometimes depicting people but mostly animals. These are statues like totem poles on the southern slope of Göbekli Tepe in 2009. The most common finds are different stone working tools, treated limestone slabs and oval shaped basalt mortars.

Only types of domestic buildings and elements such as fireplaces or hearths that have been used as settlements have recently emerged. These reveal the existence of contemporary workshops in the field. The significance of Göbekli Tepe, independent of the region, comes from its repetition with similar iconography, such as T-shaped columns or decorated objects; In Turkey, about 200km from where the expedition Karahan Tepe was found and Jerf al Ahmar, tell Caramel and tell 3 Abr in Syria. Accordingly, these sites may belong to a common Neolithic cult community.



Figure 2.4. Aerial photo of Göbekli Tepe indicating the position of the hill to the area (Source: Leo, Merbach, and Pant 2017)

Considering the context of Göbekli Tepe in the landscape, its prominent position indicates that it is an ‘elevated’ position within a network of Early Neolithic sites. The topographic position at the top of the plateau makes it a landmark that can be seen from afar, and its position has wide views over the surrounding plains. In addition, ecological

characteristics have been a major factor in site selection. In the immediate vicinity of the fertile crescent, there are habitats for a variety of wild plant species, including wild black wheat (later domesticated), emmer and barley. However, at the time of Göbekli Tepe, only wild predecessors were bred; these plants have only been domesticated in the following centuries (Leo, Merbach, and Pant 2017).

In the close radius around Göbekli Tepe, there were a wide variety of wild animals that could be found, and their geographical distribution overlaps in this area. This is demonstrated by the analysis of faunal remains from the area representing the wildlife was exploited by prehistoric hunters. In summary, the area around the site is home to different plants and animals, some of which will be domesticated during the Neolithicization process. Therefore, this region is quite rightly regarded as the core region of Southwest Asian Neolithization. The area raises a number of questions, including how the complex hunter community can build such monumental buildings, as seen in Göbekli Tepe. In addition, it remains unclear what the structures looked like during use. It is not known whether the structures have some kind of intended use after burial. Perhaps the columns are still visible at the top and are used as some evidence.

After the active use of Göbekli Tepe in the middle pottery Neolithic phase B (8000 BC), information about the area is available. The concept of a special place, which is based on old beliefs, seems to continue in the region. This is evident from the occasional destruction of some of the annexes. The only evidence for the post-Stone Age construction activities at Göbekli Tepe consists of the “Roman Watchtower” to the south of the plateau and a nearby cistern (Figure 2.7). The stone foundations of a rectangular tower-like structure can be seen here. This may be a function of protecting the eastern border of the Roman Empire against the Parthians, especially since the south of the plateau enters the Harran Plain and offers a good perspective in three directions (Leo, Merbach, and Pant 2017).

Göbekli Tepe consists of first degree and third degree archaeological sites. The first degree archaeological site covers 126 hectares and includes the hill, circular monumental structures, plateau with traces of the prehistoric quarry, and surrounding quarry sites. The third degree archaeological site is the area surrounding the first degree archaeological site and covers an area of 461 hectares. The proposal management area boundary covers an area of 2306 hectares (Figure 2.6).

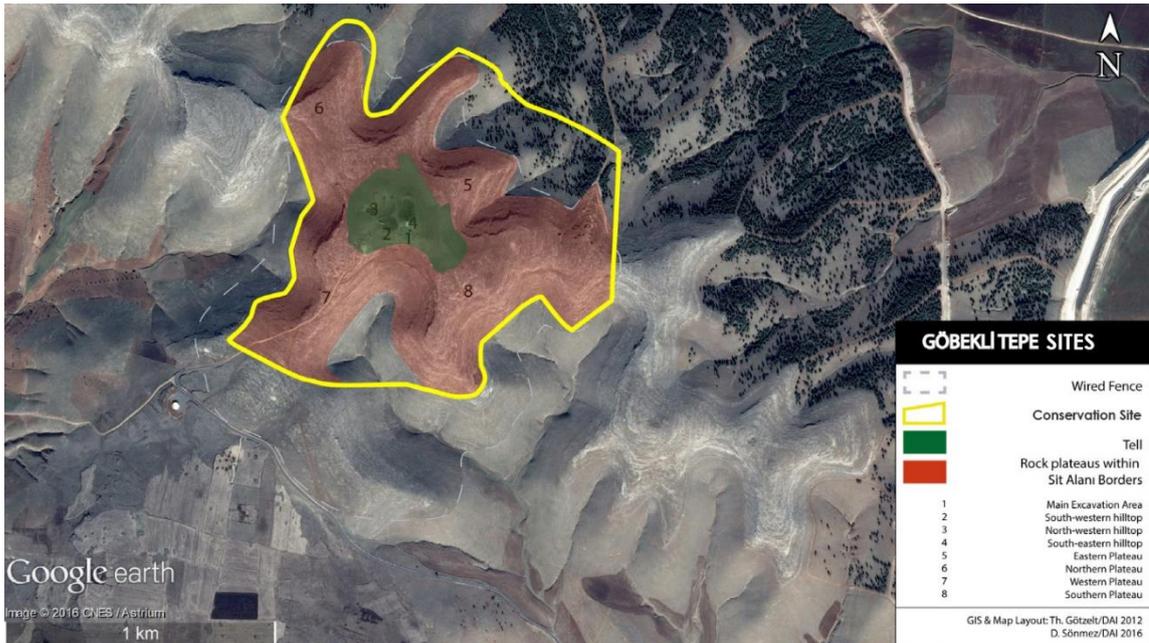


Figure 2.5. Göbekli Tepe Archeological Sites  
 (Source: Leo, Merbach, and Pant 2017)

Göbekli Tepe Archaeological site is accessed via the visitor center in the southwest. In this section, there is a car park, visitor center and museum entrance. The area where the archaeological finding is located in the northeast of this section can be reached on foot or by vehicle. In the center of the Göbekli Tepe archaeological site, there are archaeological findings unearthed by the excavations on the hill and buried finds discovered by radar scanning systems. Most of the finds unearthed are located on the southern slope of the hill, and a small part is located on the northern slope of the hill (Figure 2.7).

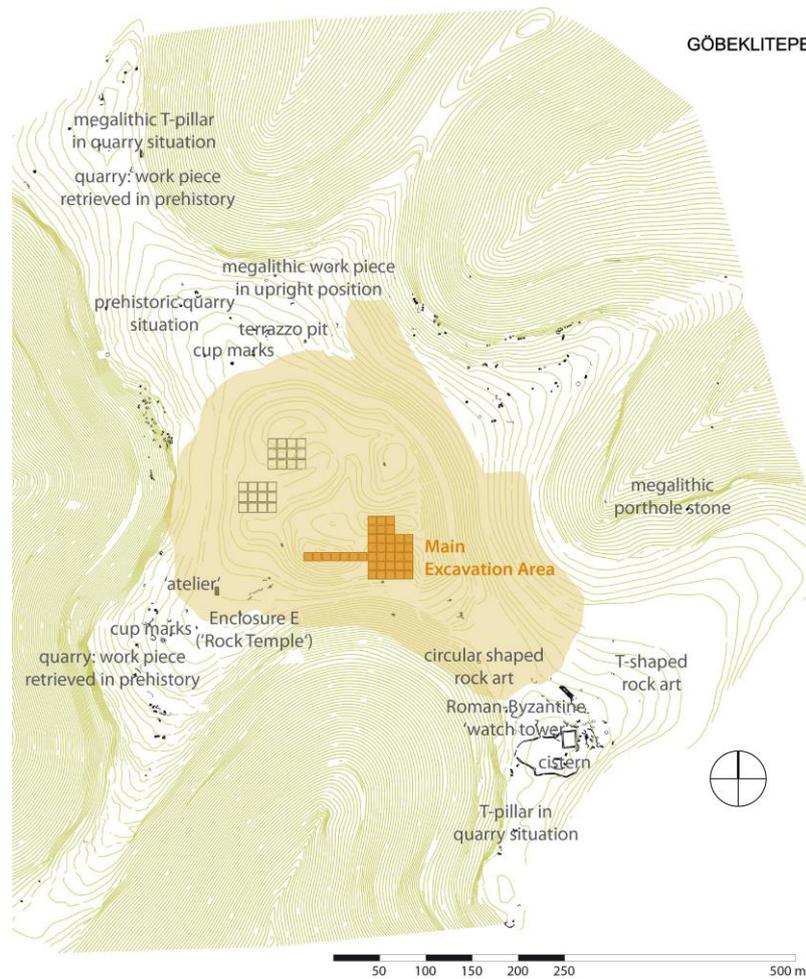


Figure 2.6. Göbekli Tepe main excavation area and remains surrounding  
(Source: Leo, Merbach, and Pant 2017)

The area excavated in the south of the hill is in T form, and the area excavated in the north is in rectangular form. The finds are dated to three different periods. Layer III is dated to the early pre-pottery Neolithic period A (9600-8700 BC), while layer II is dated to the early pottery Neolithic period B (8700-8200 BC) (Schmidt 2007b).

There are nine enclosures in the area. These can be classified as enclosure with motive and enclosures without motive. Enclosures with motives are located in the south excavation area and northwest excavation area. One of the enclosures without motive is located in southwest excavated area and one of them is in northwest excavated part.

These nine enclosures are identified by taking into account as components of enclosures, construction techniques and alignment characteristics. Construction techniques are stated as number of wall rows, wall thickness, pillar number, pillar size, base size, floor material that make up the construction system of the enclosure. On the

other hand, alignment characteristics are stated as the geometry of the enclosure plan, the area of enclosure, the forms of motives in pillars, and the location of motives in pillars.

After analyzing the construction technique and alignment characteristics, the relationships between components of enclosures are evaluated.

## **2.1. Identification of Enclosure with Motives**

Enclosures with motives belong to layer III and II. These are enclosure with snake motive (A), enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery motive (D), enclosure with dog motive (F), enclosure with leopard motive (H) and enclosure with lion motive (L). Enclosure with snake motive (A) is located on south edge of T form excavation area. To the northeast of it there is enclosure with wild boar motive (C) and at northwest of it there is enclosure with fox motive (B). North of all these enclosures, there is enclosure with animal scenery motive (D). Enclosure with lion motive (L) is located on the north of enclosure with animal scenery motive (D). Enclosure with leopard motive (H) is located on the northwest of the hill. Enclosure with the dog motive (F) is located on the west of main excavation area.

### **2.1.1. Enclosure with Snake Motive (Enclosure A)**

Enclosure with snake motive (A) is located at southernmost of unearthed area where the excavated area shaped as T in plan (Figure 2.8). Enclosure is dated to layer III also stated as the construction of transition period from PPNA (Pre Pottery Neolithic A) to PPNB (Pre Pottery Neolithic B).

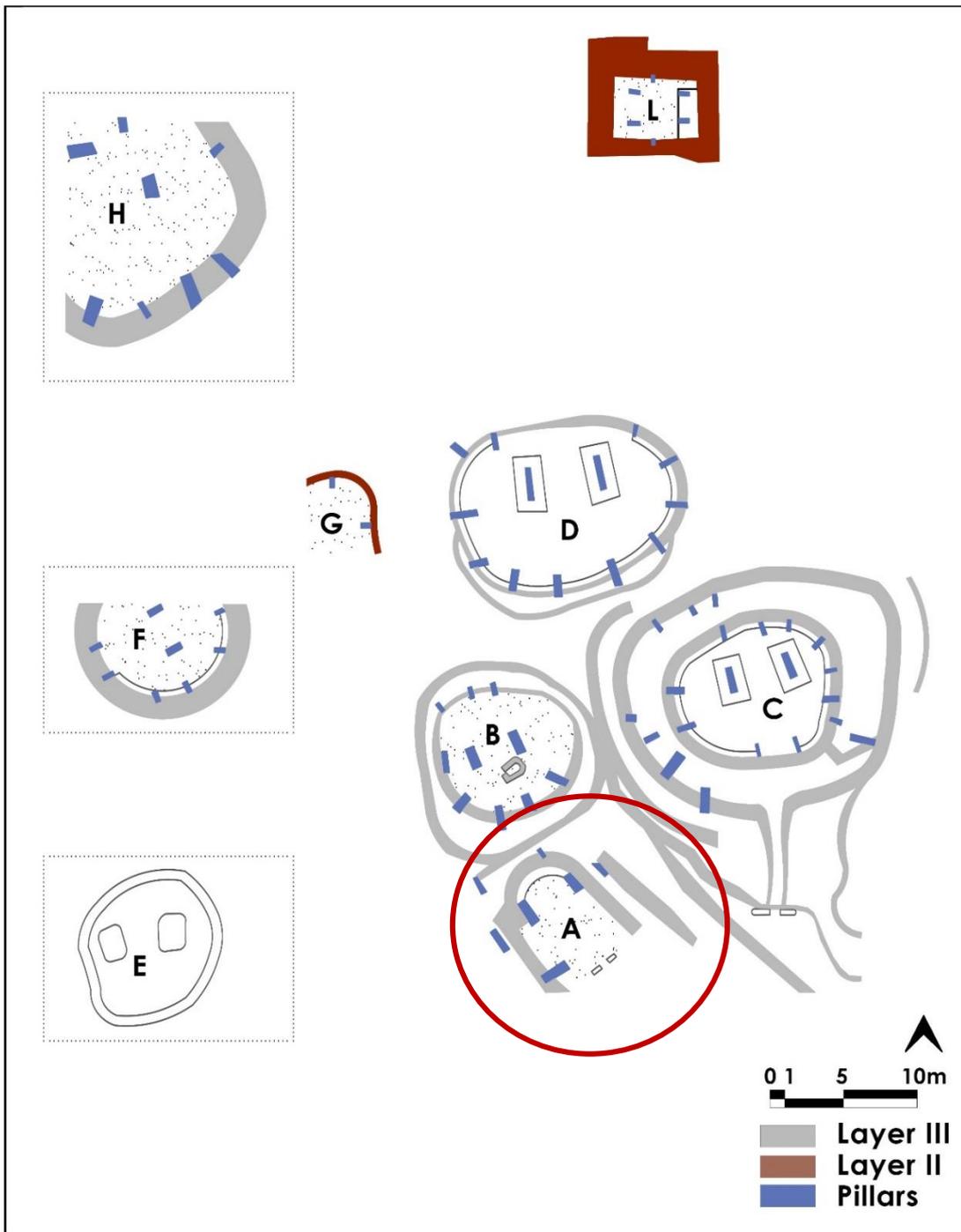


Figure 2.7. Enclosure with snake motive (A)

Enclosure with snake motive (A) is oval planned and its width is 5.5 m and its length is 8.5 m (Figure 2.9). Enclosure is oriented towards northwest – southeast. There is no defined entry. The enclosure is accessed from southeast direction. Current components of the enclosure are wall, pillars and floor (Table 2.1).



Figure 2.8. Enclosure with snake motive (A)  
(Photograph: K. Çelik, 2022)

### **Walls**

The walls were constructed with the technique of clay based mud mortared rubble core and rubble stone facing. In the rubble limestone facing, clay based mud mortar was used a binder. Enclosure is surrounded by double wall row. The width of stones varies between 30 cm -80 cm. The height of stones varies between 15 cm-30 cm. There are embedded pillars along the wall. As a result of excavation, three walls of the enclosure have been unearthed. The thickness of walls changes between one and two meters.

### **Pillars**

There are two pillars in west wall and one pillar in east wall. The one on the east wall is located parallel to the wall. The one pillar on the west wall is located parallel to the wall and the other is located perpendicular to the wall. There are pillars outside of walls, one on the east and one on the west. The dimensions of pillar on the east wall is 180x60x315 cm. The dimensions of parallel pillar on the west wall is 210x60x315 cm. The dimensions of perpendicular pillar on the west wall is 240x60x210 cm. The dimensions of outside pillar on the east wall is 160x40x200 cm. The dimensions of outside pillar on the west wall is 190x50x200 cm. There is web motive in the east of west pillar and 4 snake motives in south (Figure 2.10). Three of these motives are facing down,

one of them is facing toward up. There are bull, fox and crane motives in west surface of east pillar. The east surface of perpendicular pillar in west wall has snake motives facing down.



Figure 2.9. Snake motives on east pillar  
(Photograph: K. Çelik, 2022)

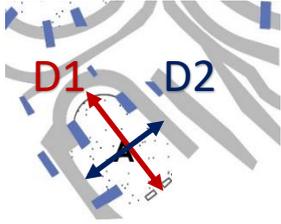
### **Floor**

The floor of the enclosure is mosaic floor pavement consisting of limestone pieces in limestone binder known as terrazzo floor.

### **Object**

There is a remain assumed as U-shaped stone made of limestone in floor of enclosure.

Table 2.1. Structural Elements of Enclosure with Snake Motive (A)  
(Photographs: K. Çelik, 2022)

ELEMENTS	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
Wall	Limestone	Oval planned	Thickness 1 – 2 m		
Pillars in the peripheral wall bonding	7 limestone pillars	T-shaped	Length: 72 – 175 cm Width: 28 – 66 cm Height: 172 – 315 cm	Snake	
Pillars in the center	-				
Floor	Terrazzo	Oval planned	D1: 10 m D2: 6 m		
Object/Stone	Limestone	U-shaped			

### 2.1.2. Enclosure with Fox Motive (Enclosure B)

Enclosure with fox motive (B) locates in northwest of enclosures with snake motive (A) (Figure 2.11). There is enclosure with wild boar motive (C) to the east of it

and enclosure with animal scenery motive (D) to the west of it. Enclosure is dated to layer III.

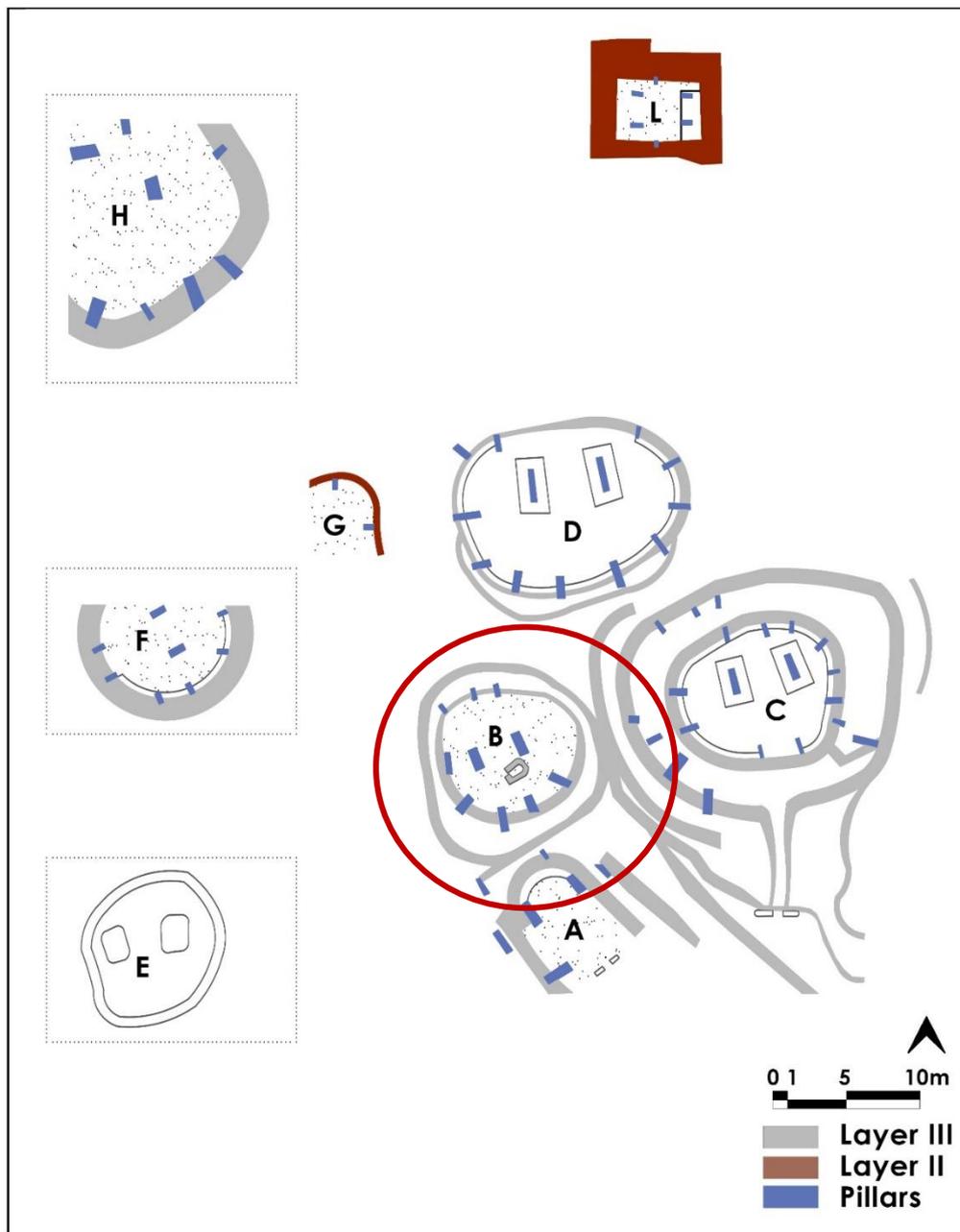


Figure 2.10. Enclosure with fox motive (B)

Enclosure with fox motives is circular planned and the diameter of inner enclosure is 9.3 m. There is no defined entry. The enclosure is accessed from northwest direction. Structural elements of the enclosure are wall, pillar, floor (Table 2.2). Enclosure with fox motive has no superstructure.

## **Walls**

The walls were constructed with the technique of clay based mud mortared rubble core and rubble stone facing. In the rubble limestone facing, clay based mud mortar was used a binder (Figure 2.12). The width of stones varies between 30 cm -80 cm, the height of stones varies between 15 cm-30 cm. There are embedded pillars along the wall and pillars standing still in center of enclosure. The thickness of walls changes between 30 cm and 1 m. Outside of this wall, there is another wall, its thickness is 50 cm. These two walls and passage space between them is surrounding the enclosure. The length of this space change from 1 m and 1.5 m. Some parts of the walls were not unearthed in excavations(Schmidt 2007b).

## **Pillars**

There are four pillars in south wall as perpendicular to wall, one pillar as parallel to wall and there are four pillars in north wall perpendicular to the wall. One of the pillars in north wall has not been unearthed completely. The dimensions of pillars in south wall are listed in order from east to west: 150x60x300 cm, 130x70x300 cm, 180x60x400 cm, 130x60x300 cm. The dimensions of pillars in north wall are listed in order from east to west: 90x50x200, 80x40x200, 80x40x200 cm. The dimension of the one not unearthed completely is 40x50x150 cm.

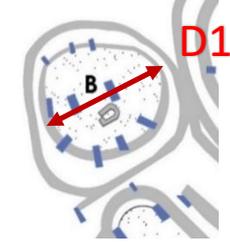


Figure 2.11. Enclosure with fox motive (B)  
(Photograph: K. Çelik, 2019)

There are two T-shaped pillars in the center. Their height is 4 m. The orientation of these pillars are in southeast and northwest direction and facing each other. The dimensions of the central pillars listed as in order from east to west: 170x80x400 cm,

160x80x380 cm. There are voids on top of the pillars, looking like semi-globe niche on top of the pillars. There are fox motives on both central pillars facing each other. The pillars on south of the enclosures has fox motives, too. There is no other motive in enclosure.

Table 2.2. Structural Elements of Enclosure with Fox Motive (B)  
(Photograph: K. Çelik, 2019)

ELEMENT	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
<b>Wall</b>	Limestone	Circular planned	Thickness: 30 – 100 cm		
<b>Pillars in the peripheral wall bonding</b>	9 limestone pillars	T-shaped	Length: 75 – 171 cm Width: 30 – 61 cm Height: 300 – 330 cm	Fox	
<b>Pillars in the center</b>	2 limestone pillars	T-shaped	Length: 156 – 166 cm Width: 66 cm Height: 360 cm	Fox	
<b>Floor</b>	Terrazzo floor	Circular planned	D1: 9 m		
<b>Object/vessel</b>	Limestone	Squared			

### Floor

The floor of the enclosure is terrazzo floor pavement consisting of limestone pieces in limestone binder known as terrazzo floor.

## Object

On east of enclosure, close to central pillars, there is a big stone piece like a bowl. It is assumed to be an offering vessel and it is embedded in the floor.

### 2.1.3. Enclosure with Wild Boar Motive (Enclosure C)

Enclosure with wild boar motive (C) is located on northeast of enclosure with fox motive (B) and north of enclosure with snake motive (A) (Figure 2.13). Enclosure is dated to layer III.

The periphery of the enclosure consists of concentric four wall row (Figure 2.13). The exterior two rows are very close to each other, the length of space as a passage is 40 cm. There is no pillar in this two wall rows. The two rows inside are more spaced from each other and have an embedded pillar. The length of the space between them is 2 m. The diameter of the inner enclosure is 10.2 m. There is a defined entry on south of enclosure. The dimension of the entrance space is 100x700 cm. Also there is a stair remain. Structural elements of the enclosure are wall, pillar, floor. Enclosure with wild boar (C) motive has no superstructure (Table 2.3).



Figure 2.12. Enclosure with wild boar motive (C)  
(Photograph: K. Çelik, 2022)

## **Walls**

The walls were constructed with the technique of clay based mud mortared rubble core and rubble stone facing. In the rubble limestone facing, clay based mud mortar was used a binder. The thickness change is some part from 60 cm to 130 cm. The walls facing the center of enclosure have bench (Figure 2.14).

## **Pillars**

There are eight pillars in outer wall row. They are located perpendicular to wall. There are 11 pillars in inner wall facing the center and they are perpendicular to the wall, too. There are two pillars in entrance space of enclosure. The pillars in center are oriented to northwest-southeast direction. There are limestone pedestals under the pillars in center. These pedestals were smoothed from bedrock. The dimensions of pillars in periphery vary in length between 80-190 cm, width 30- 90 cm. The height of pillars is 4 m. the dimensions of pillars in center are identical and 180x60x350 cm. The tops of the central pillars are damaged. So they are not the original height. Original height is assumed as 5 m (Schmidt 2007a).

Only one of the pillars in the outer wall has a motive. There are bird motives, wild boar and fox motives on the upper part of the pillar in the west wall of the enclosure. There are wild boar motives on two of the pillars on the wall facing the center of the enclosure. These motives are on the upper part of the pillars on the east wall. There is another snake motive on one of the pillars on the west wall of the enclosure, with its head facing upwards. There are fox motives in the remaining section of the central pillars.

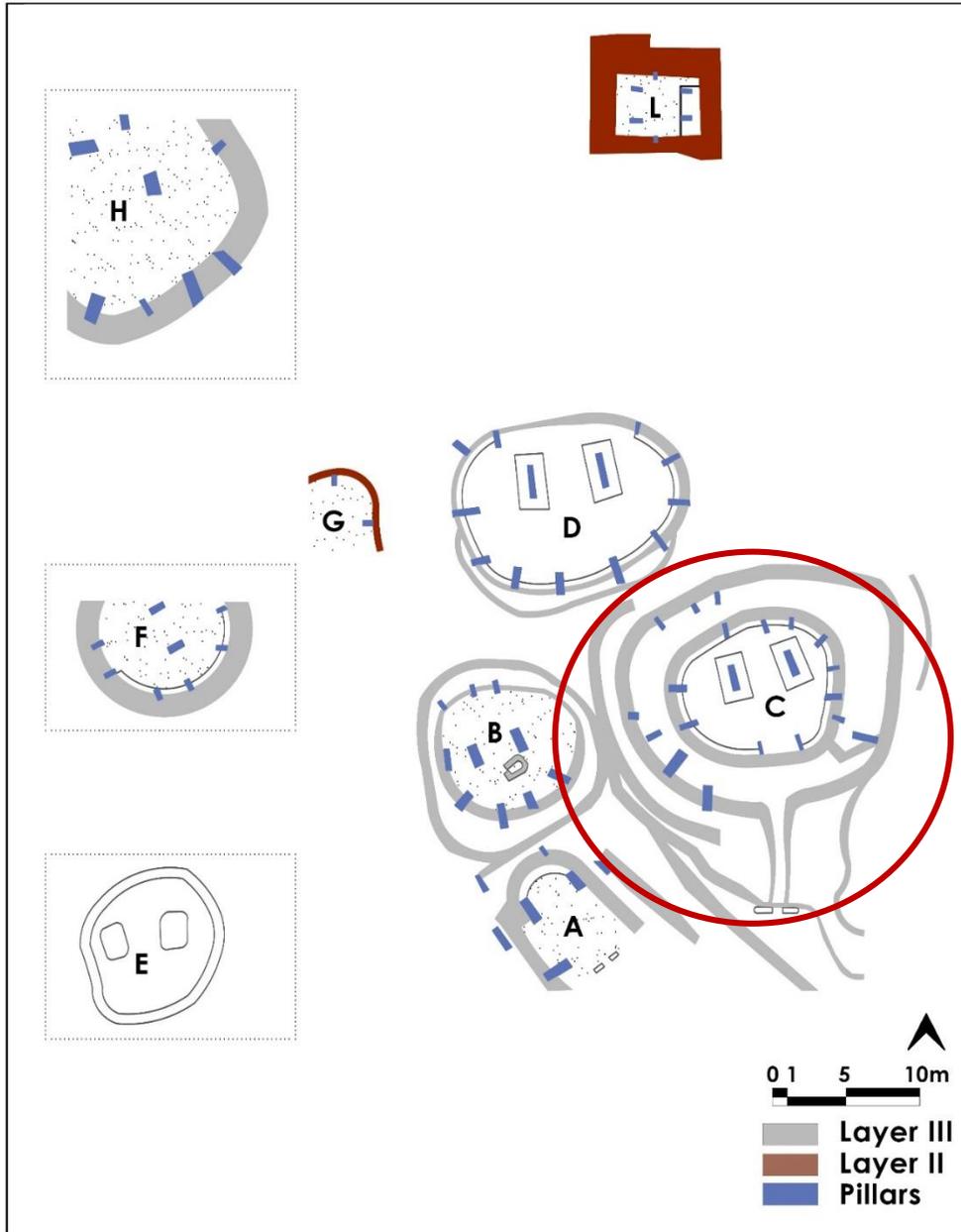


Figure 2.13. Enclosure with wild boar motive (C)

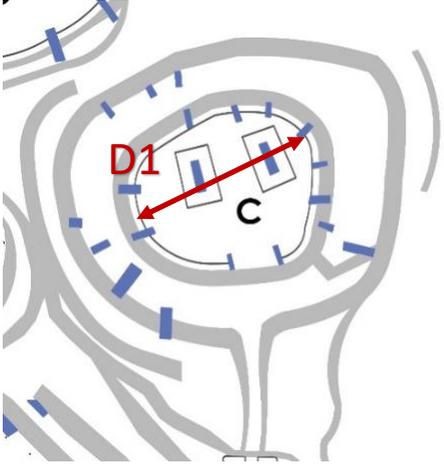
**Floor**

Floor is limestone smoothed from bedrock.

**Object**

There is a U-shaped stone out of limestone in entrance space of enclosure, it has a wild boar motive on it. One part of this elements had reached present.

Table 2.3. Structural elements of enclosure with wild boar motive (C)  
(Photograph: K. Çelik, 2019)

ELEMENTS	MATERIAL	FORM	DIMENSION	MOTIVE	IMAGE
Wall	Limestone	Circular planned	Thickness: 60 – 130 cm		
Pillars in the peripheral wall bonding	9 limestone pillars	T-shaped	Length: 62 – 190 cm Width: 23 – 90 cm Height: 235 – 355 cm	Wild boar, Bird	
Pillars in the center	2 limestone pillars	T-shaped	Length: 180 cm Width: 55 cm Height: 500 cm	Fox	
Floor	Limestone smoothed from bedrock	Circular planned	D1: 30 m		
Object/Stone	Limestone	U-shaped		Wild boar	

### 2.1.4. Enclosure with Animal Scenery Motive (Enclosure D)

Enclosure with animal scenery motive (D) is located on northwest of the enclosure with wild boar motive (C) and on north of the enclosure with fox motive (B) (Figure 2.15). Enclosure is dated to layer III.

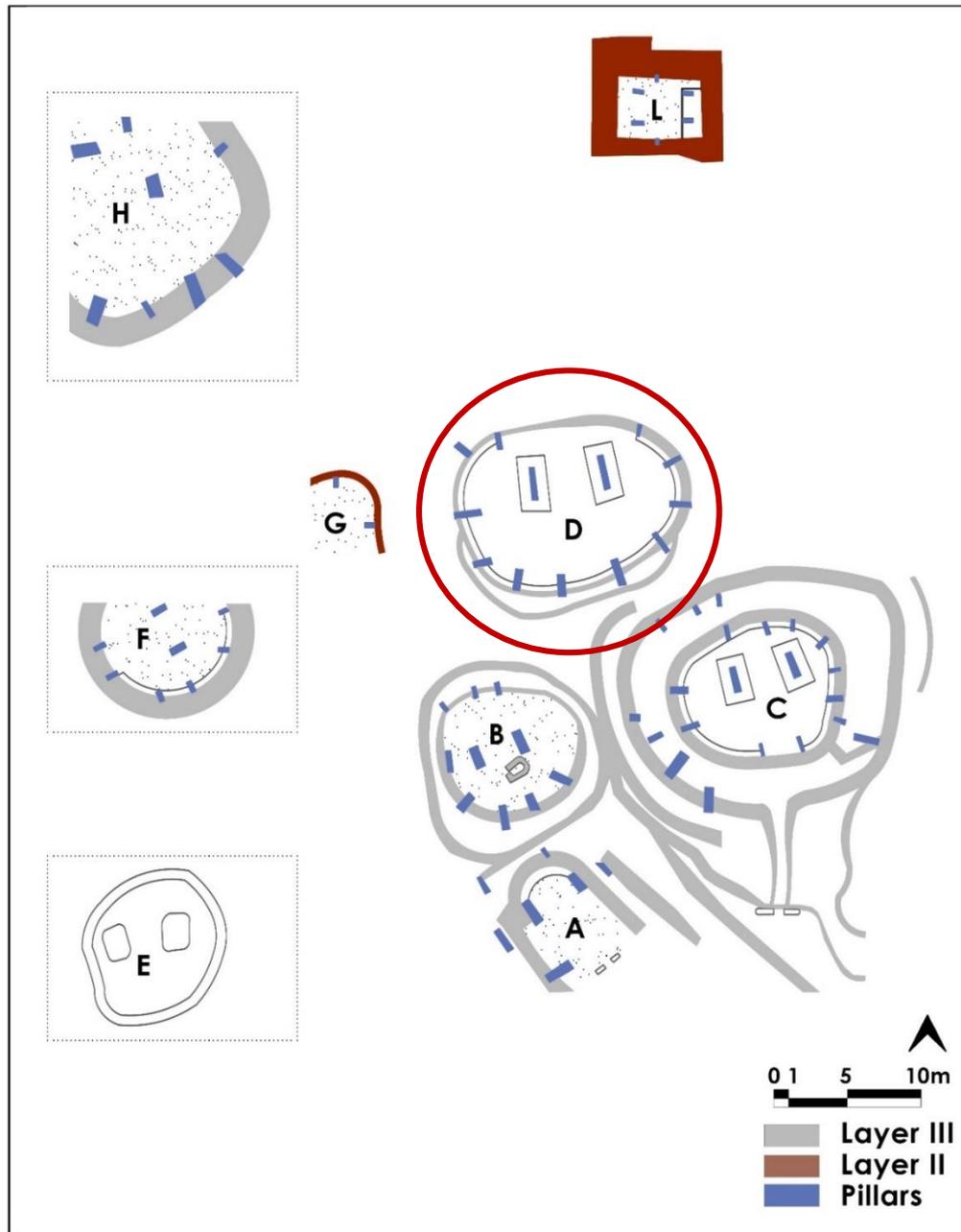


Figure 2.14. Enclosure with animal scenery motive (D)

Enclosure with animal scenery motive is circular plan and the inner diameter is 14 m. There is no defined entry, it is accessed from north of excavated area. Structural

elements in the enclosure are wall, pillar, floor. Enclosure with animal scenery motive has no superstructure (Table 2.4).

### **Walls**

The walls were constructed with the technique of clay based mud mortared rubble core and rubble stone facing. In the rubble limestone facing, clay based mud mortar was used a binder. The thickness of the wall changes in some part from 30 cm to 100 cm. The exterior walls of enclosure are double-walled in some parts. The dimension of this space in between the wall row changes from 60 cm to 100 cm. There is an ornamented holed stone with geometric motives on north wall of enclosure, it is located towards to north (Figure 2.16).



Figure 2.15. Ornamented stone on the wall  
(Photograph: K. Çelik, 2022)

### **Pillars**

There are 11 pillars on the walls facing the central area and two pillars in the center (Figure 2.17). The T-shaped pillars on the periphery are between 30-60 cm in width, 90-190 cm in length, and 300 cm in height. The pillars in the center are located in the north-south direction. The dimensions of the pillars in the center are 220x60x550 cm and 220x50x550 cm, from east to west, respectively. The pillars in the center have bases carved from the limestone bedrock. There are motives with what appear to be human arms

in wide side of pillars in the center. Pillar in east has motives on narrow side. The motive is rectangular along the edges. In center part, there is a motive designed as a combination of h letter, circle and arc. There is a bull head motive in the pillar to the west. There are motives also on pillars on peripheral wall. On the side looking center, there are snake, bull and fox motives.

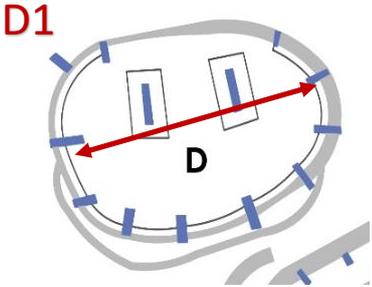


Figure 2.16. Central pillars and bases of enclosure with animal scenery motive (D)  
(Photograph: K. Çelik, 2019)

### **Floor**

Floor is limestone smoothed from bedrock.

Table 2.4. Structural elements of enclosure with animal scenery motive (D)  
(Photograph: K. Çelik, 2019)

ELEMENT	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
Wall	Limestone	Circular planned	Thickness: 30 – 130 cm		
Pillars in the peripheral wall bonding	11 limestone pillars	T-shaped	Length: 90 – 190 cm Width: 30 – 60 cm Height: 350 – 490 cm	Snake Bull fox	
Pillars in the center	2 limestone pillars	T-shaped	Length: 230 – 240 cm Width: 40 cm Height: 550 cm	Motives look alike human arm	
Floor	Limestone smoothed from bedrock	Circular planned	D1: 15 m		

### 2.1.5. Enclosure with Dog Motive (Enclosure F)

Enclosure with dog motive (F) is located on the northwest of the main excavation area (Figure 2.18). It is on the edge of T shaped excavation area. Enclosure is dated to layer III. The lower parts of the walls were found in excavations. The circular planned enclosure has a diameter of nine meters (Table 2.5).



Figure 2.17. Enclosure with dog motive (F)

### Walls

The walls as the other enclosures were constructed with the technique of clay based mud mortared rubble core and rubble limestone facing. In the rubble stone facing, clay based mud mortar was used a binder (Figure 2.19). The thickness of the wall is 1 m.

### **Pillars**

There are 6 pillars on the outer walls. The height of these pillars is 1.5 meters. The length of pillars varies between 80- 90 cm, and the width varies between 40- 50 cm. There are two T-shaped pillars in the center. These pillars are of the same size and measure 120x50x200 cm and there is no motive.

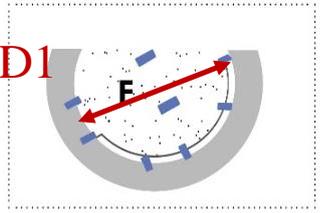
### **Floor**

The floor of the enclosure is mosaic floor pavement of limestone pieces in limestone binder known as terrazzo floor.



Figure 2.18. Enclosure with dog motive (F)  
(Photograph: K. Çelik, 2022)

Table 2.5. Structural elements of enclosure with dog motive (F)  
(Photograph: K. Çelik, 2022)

ELEMENT	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
Wall	Limestone	Circular plan	Thickness: 1 m		
Pillars in the peripheral wall bonding	6 limestone pillar	T-shaped	Length: 80 – 90 cm Width: 40 – 50 cm Height: 150 cm	-	
Pillars in the center	2 limestone pillar	T-shaped	Length: 120 cm Width: 50 cm Height: 200 cm	-	
Floor	Terrazzo	Circular	D1: 8 m		

### 2.1.6. Enclosure with Leopard Motive (Enclosure H)

Enclosure with leopard motive (H) is located on the north excavation area locating on north of main excavation area (Figure 2.20). It is the only enclosure in that section of excavation area. Enclosure is dated to layer III.

The unearthed wall of the enclosure is circular shaped. The dimensions of the excavated enclosure are 8 m – 5 m. There is no defined entry. Entrance is provided from the northwest of the area (Table 2.6).

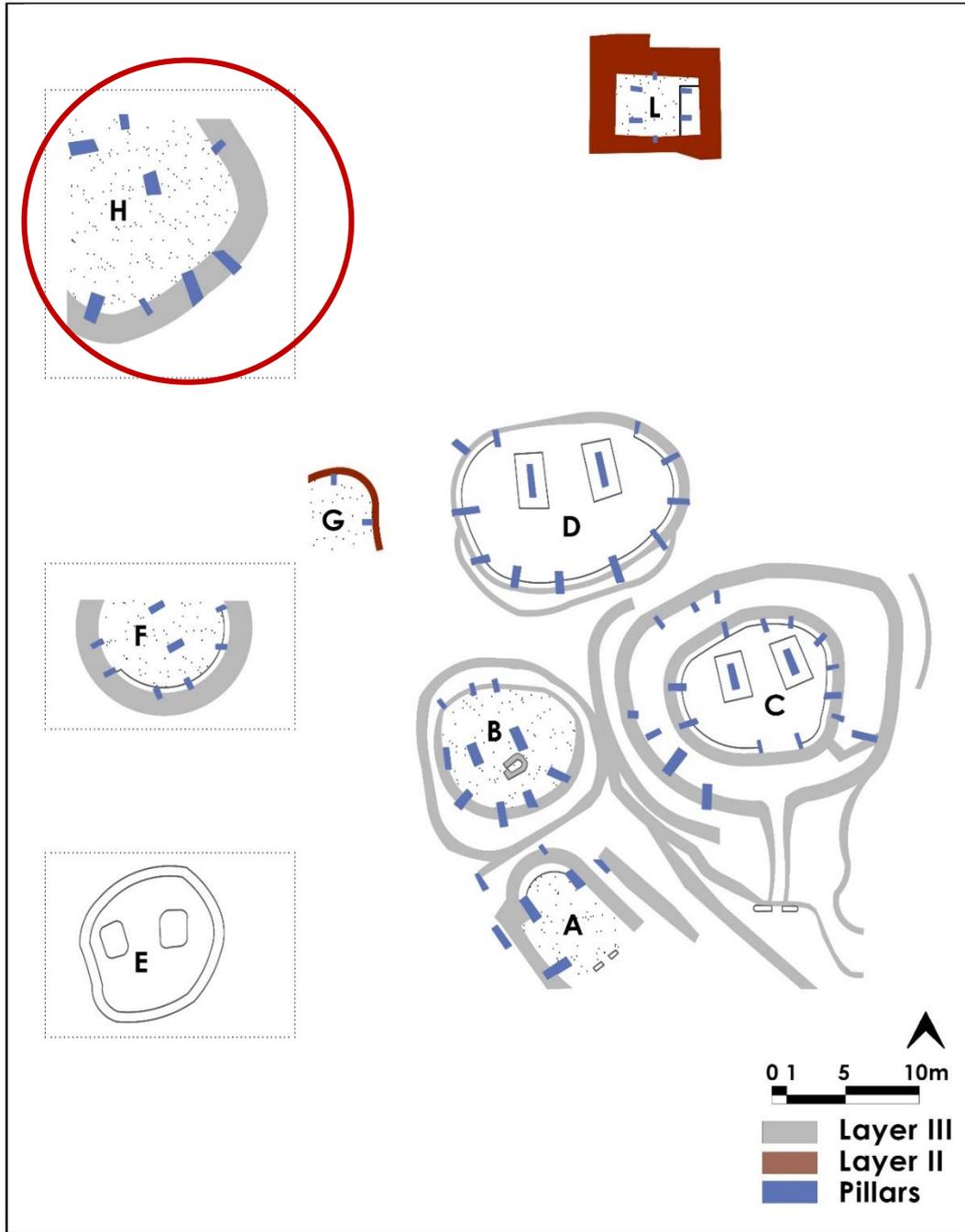


Figure 2.19. Enclosure with leopard motive (H)

### Walls

The walls were constructed with the technique of clay based mud mortared rubble core and rubble stone facing. In the rubble limestone facing, clay based mud mortar was used a binder. Wall thickness is 50 cm.

### **Pillars**

There are seven pillars on the periphery wall (Figure 2.21). There are two pillars in the center, but only one was unearthed. There is no motive. The dimension of exposed part of pillar in center is 80x50x80 cm.

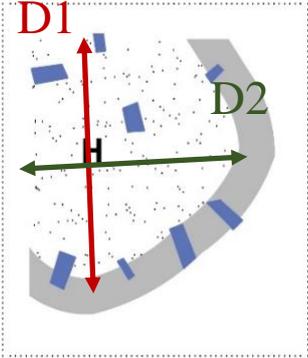
### **Floor**

The floor of the enclosure is terrazzo floor.



Figure 2.20. Enclosure with leopard motive (H)  
(Source: Leo, Merbach, and Pant 2017)

Table 2.6. Structural elements of enclosure with leopard motive (H)

ELEMENT	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
Wall	Limestone	Oval plan	Thickness: 50 cm		
Pillars in the peripheral wall bonding	7 limestone pillar	T-shaped	Length: 60 – 80 cm Width: 30 cm Height: 200 cm	-	
Pillars in the center	2 limestone pillar	T-shaped	Length: 80 cm Width: 50 cm Height: 80 cm		
Floor	Terrazzo	Circular	D1: 13 m D2: 11 m		

### 2.1.7. Enclosure with Lion Motive (Enclosure L)

Enclosure with lion motive (L) is located in northeast of enclosure with animal scenery motive (D) (Figure 2.22). Enclosure is dated to layer II.

Enclosure with lion motive (L) is rectangular planned and the dimensions of it is 5.7 and 4.1 m. There is no defined entry. Structural elements in the enclosure are wall, pillar, floor and motives. Enclosure with lion motive (L) has no superstructure (Table 2.7).

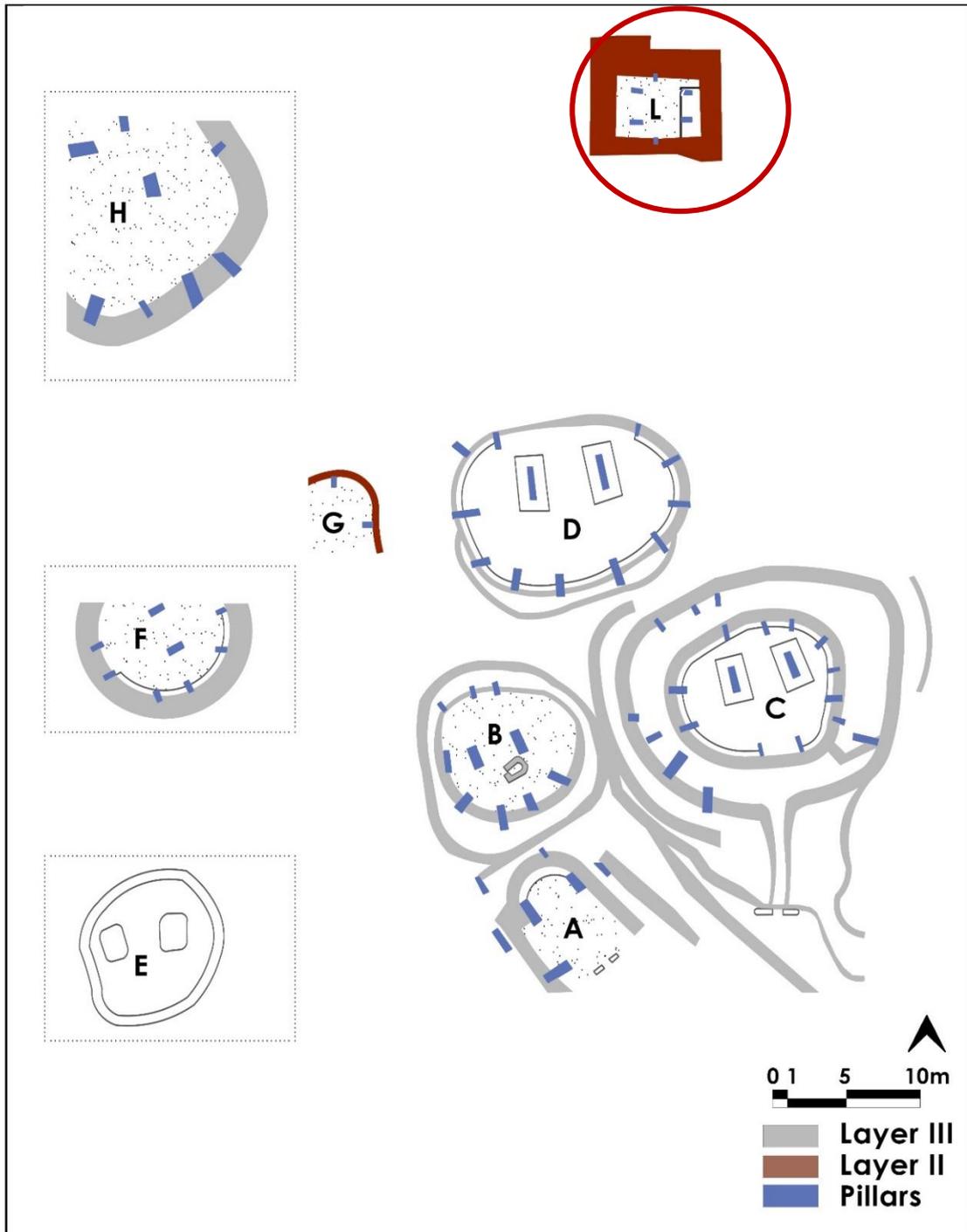


Figure 2.21. Enclosure with lion motive (L)

### Walls

Walls like the other walls in site were constructed with the technique of clay based mud mortared rubble core and rubble limestone facing. In the rubble stone facing, clay based mud mortar was used a binder. The thickness of the wall changes in some parts

from 117 cm to 192 cm (Figure 2.23). The enclosure has a staircase-like structure leading up from a terrazzo floor to a raised bench, on which an excavated drawing depicting a woman was found.



Figure 2.22: Enclosure with lion motive (L)  
(Photograph: K. Çelik, 2022)

### **Pillars**

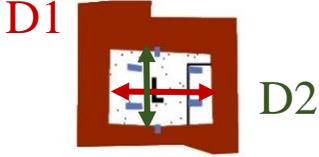
There are two pillars on the walls facing the central area and 4 pillars in the center. The T-shaped pillars on the periphery are 20-23 cm in width, 43-44 cm in length, and 100-190 cm in height. The pillars in the center are located in the north-south direction. The dimensions of the pillars in the center are 23x79x150 cm, 24x82x145 cm, 30x78x184 and 21x91x172 cm counter clockwise, respectively.

There are motives that look like human arms in the narrow side of two pillars in south peripheral wall. There are lion motives in the central pillars in east facing each other. There is only one women representation in the staircase-like structure leading up from a terrazzo floor to a raised bench

## Floor

The floor of the enclosure is mosaic floor pavement of limestone pieces in limestone binder known as terrazzo floor.

Table 2.7. Structural elements of enclosure with lion motive (L)

	Material	Form	Dimension	Motive	
<b>Wall</b>	Limestone	Rectangular planned	Thickness: 30 – 130 cm		
<b>Pillars in the peripheral wall bonding</b>	2 limestone pillars	T-shaped	Length: 43 – 44 cm Width: 20 – 23 cm Height: 100 – 190 cm	Motives look alike human arm	
<b>Pillars in the center</b>	4 limestone pillars	T-shaped	Length: 78 – 91 cm Width: 21 – 30 cm Height: 145 – 184 cm	Lion	
<b>Floor</b>	Terrazzo	Rectangular	D1: 5.7 m D2: 4.1 m		

## 2.2. Identification of Enclosures without Motives

Enclosures with no motives includes the other enclosures in the site. These enclosures are named as E and G enclosures.

### 2.2.1. Enclosure E

Enclosure E is located in the west excavation area (Figure 2.24). The layer of the enclosure is not defined, the plan organization is similar to enclosures of layer III. There is no defined entry. It is accessed from south of the enclosure. There are no wall remains. There is pillar base and floor on the enclosure (Table 2.8).

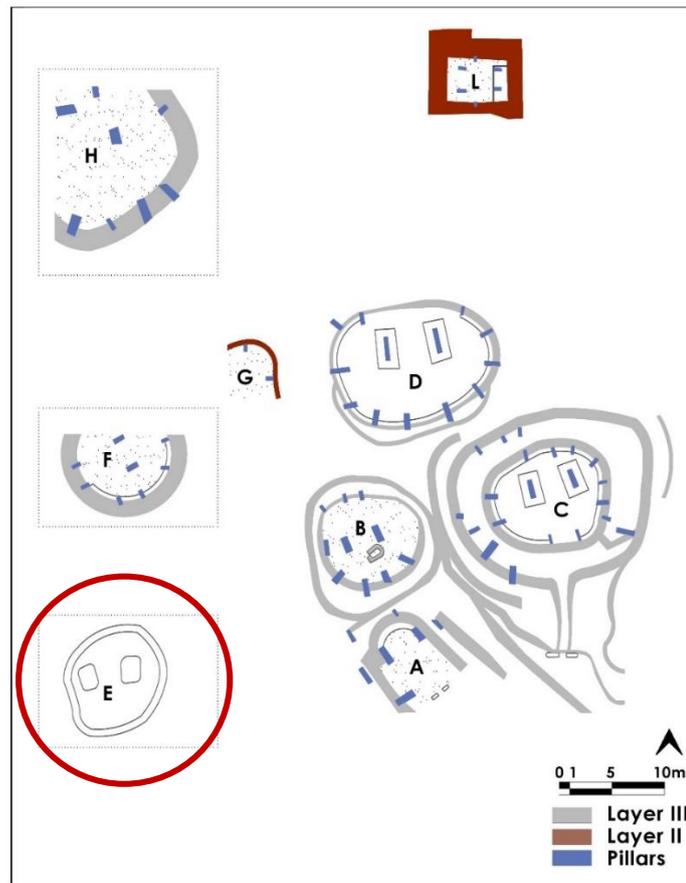


Figure 2.23. Enclosure E

#### **Walls**

The circular planned enclosure E has a diameter of about nine meters. The walls of the enclosure have not reached present (Figure 2.25).

#### **Pillars**

The pillars of the enclosure were not found in the excavations. Two stone bases belonging to the pillars were found on the ground. They were smoothed from bedrock.

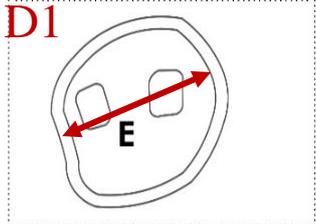


Figure 2.24. Enclosure E  
(Photograph: K. Çelik, 2022)

### Floor

Floor is limestone smoothed from bedrock in enclosure.

Table 2.8. Structural elements of enclosure E  
(Photograph: K. Çelik, 2022)

	MATERIAL	FORM	DIMENSION	MOTIVE	PHOTOGRAPH
<b>Wall</b>	-				
<b>Pillar base</b>	Limestone		Width:1.2 m		
<b>Floor</b>	Limestone smoothed from bedrock	Circular planned	D1: 8 m		

### 2.2.2. Enclosure G

Enclosure G is located on the west of the enclosure with animal scenery (D) (Figure 2.26). It is located on a higher level from the other enclosures. Enclosure is dated to layer II.

Enclosure G has a circular plan. Some sections of the enclosure were not unearthed during the excavations. The length of the wall fragment unearthed in the excavations is approximately eight meters. The enclosure does not have a defined entrance; an entrance is provided from the north of the area (Table 2.9).

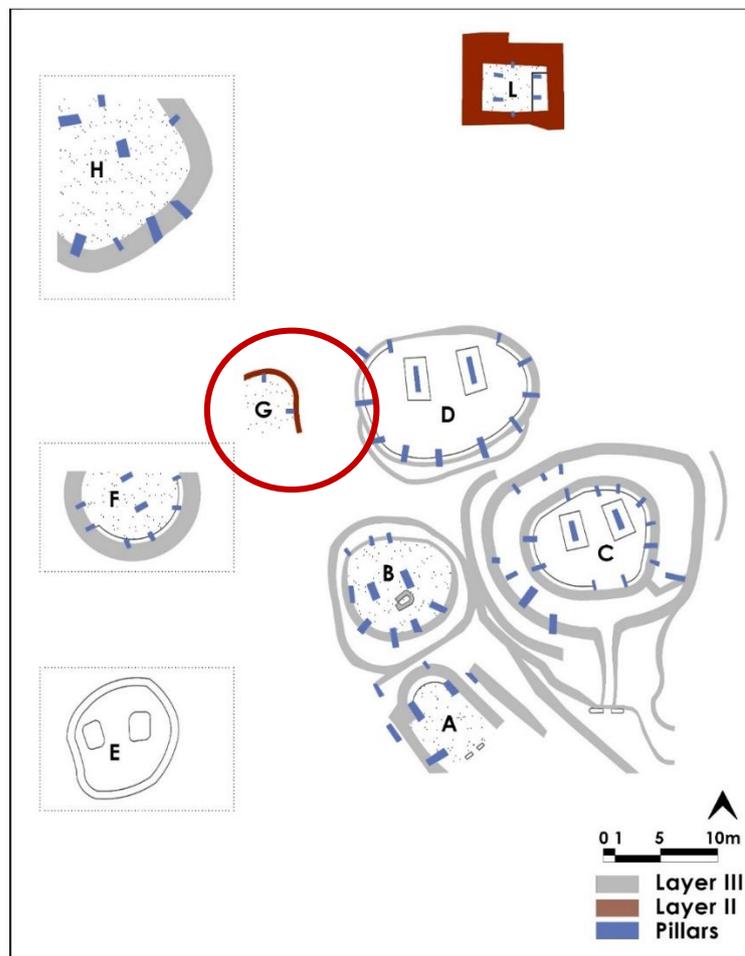


Figure 2.25. Enclosure G

## Walls

The walls of the circular planned enclosure were constructed with the technique of clay based mud mortared rubble core and rubble stone facing (Figure 2.27). In the rubble limestone facing, clay based mud mortar was used a binder. Wall thickness is 50 cm.

## Pillars

There are two pillars on the outer walls. The pillar in the north is 80x30x200 cm and the one in the east is 60x30x200 cm. There is no motive on them.

## Floor

The floor of the enclosure is mosaic floor pavement consisted of limestone pieces in limestone binder known as terrazzo floor.

Table 2.9. Structural elements of Enclosure G  
(Photograph: K. Çelik, 2022)

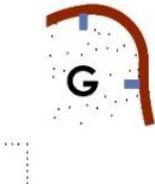
Element	Material	Form	Dimension	Motive	Photograph
Wall	Limestone	Circular plan	Thickness: 50 cm		
Pillars in the peripheral wall bonding	2 limestone pillars	T-shaped	Length: 60 – 80 cm Width: 30 cm Height: 200 cm	-	
Pillars in the center					
Floor	Terrazzo	Circular	Diameter: 8 m		



Figure 2.26. Enclosure G  
(Photograph: K. Çelik, 2022)

### **2.3. Construction Technique of Enclosures**

Construction technique of enclosures is analyzed under the headings of number of wall row, wall thickness, pillar number, pillar dimension, pillar base and floor material. These features vary in enclosures.

#### **2.3.1. Number of Wall Row**

The walls forming the enclosures are in the form of an arc or a linear form. There are wall rows or walls surrounding the area of the enclosure. These wall rows are observed as a single row, two rows or four rows. Circular planned enclosures are bordered with single row, two rows or four rows. Enclosure with fox motive (B) and enclosure with animal scenery (D) has two wall row, enclosure with wild boar (C) has four wall row. Other enclosures (enclosure with snake motive (A), enclosure with dog motive (F), enclosure with leopard motive (H), enclosure E) of Layer III and two enclosures (enclosure with lion motive (L), enclosure G) from Layer II have single wall row. Four of nine enclosures have secondary wall rows, five enclosures have single row (Table 2.10).

Table 2.10. Number of wall rows

Layer	Plan	Enclosure name	Single row	Double row	Four row
LAYER III	Oval	Enclosure with snake motive (A)		●	
		Enclosure with fox motive (B)		●	
	Circular	Enclosure wild boar motive (C)			●
		Enclosure with animal scenery (D)		●	
		Enclosure with dog motive (F)	●		
		Enclosure with leopard motive (H)	●		
		Enclosure E	●		
		Enclosure G	●		
LAYER II	Rectangular	Enclosure with lion motive (L)	●		

### 2.3.2. Wall Thickness

The thickness of the walls of the enclosures surrounded by a different number of wall rows is also varied. Wall thickness can be classified into three main groups as the ones between 25 and 60 cm, the walls more than 60 cm and both. The central area of the enclosures is bounded by a single, double or four rows of walls. These wall rows are named from inside to outside as first row and secondary rows.

The borders of the earliest period circular planned enclosure with snake motive (A), enclosure with fox motive (B), enclosure with wild boar motive (C) and enclosure with animal scenery motive (D) are defined by more than one wall row. The thickness of first wall row belonging to the enclosure with snake motive (A) is more than 60 cm. The thickness of second row is between 25 and 60 cm in west part and more than 60 cm in east part. The thickness of first row belonging to the enclosure with fox (B) motive is more than 60 cm in south and between 25 and 60 cm in north. The thickness of second row belonging to enclosure with fox motive (B) is between 25 and 60 cm. The walls belonging to the enclosure with wild boar motive (C) are more than 60 cm in first row. In secondary row, the thickness of walls is between 16 and 25 cm in south and east, more than 60 cm in west and north. The walls of enclosure with animal scenery (D) are more than 60 cm in east and smaller than 60 cm in West. The second row is smaller than 60 cm

in all directions. The enclosure with dog motive (F), enclosure with leopard motive (H) and the enclosure with lion motive (L) have surrounding walls more than 60 cm. The thickness of wall belonging to enclosure G is between 25 and 60 cm (Table 2.11).

Among all enclosures, enclosure with snake motive (A), enclosure with wild boar motive (C), enclosure with dog motive (F), enclosure with leopard motive (H) from Layer III and enclosure with lion motive (L) from layer II have uniform wall thickness.

Table 2.11. Wall thickness of enclosures

Layer	Plan	Enclosure name	Wall row	Between 25-60 cm	Both	Bigger than 60 cm
LAYER III	Oval	Enclosure with snake motive (A)	First row			●
			Secondary row		●	
	Circular	Enclosure with fox motive (B)	First row		●	
			Secondary row	●		
		Enclosure wild boar motive (C)	First row			●
			Secondary row		●	
		Enclosure with animal scenery (D)	First row		●	
			Secondary row	●		
		Enclosure with dog motive (F)	Single row			●
		Enclosure with leopard motive (H)	Single row			●
Enclosure E	-					
LAYER II		Enclosure G	Single row	●		
	Rectangular	Enclosure with lion motive (L)	Single row			●

### 2.3.3. Pillar Numbers

The positions of the pillars in the enclosures can be grouped as central pillars and peripheral pillars. In this case, the total number of pillars unearthed as a result of excavations can be listed as follows. There are seven pillars in enclosure with snake motive (A) and all of the pillars are peripheral pillars. There are 11 pillars in enclosure with fox motive (B); two pillars are in the center; the others are located on the periphery. There are 21 pillars in enclosure with wild boar (C), two in the center and 19 on the periphery. There are 13 pillars in enclosure with animal scenery (D), two in the center and 11 on the periphery. There are eight pillars in the enclosure with dog motive (F), two in the center and six on the periphery. In enclosure with leopard motive (H), there are nine pillars, one in the center and eight on the periphery. The pillars of Enclosure E were not found during the excavations, but the bases of the pillars were found. There was no trace of a pillar on the periphery wall, so it can be said that there are only two pillars in the enclosure. Two peripheral pillars were unearthed in enclosure G. There are six pillars enclosure with lion motive (L), four in the center and two on the periphery (Table 2.12).

Table 2.12. Pillar numbers

Layer	Plan	Enclosure name	Central pillars	Peripheral pillars	Total
LAYER III	Oval	Enclosure with snake motive (A)	-	7	7
	Circular	Enclosure with fox motive (B)	2	9	11
		Enclosure wild boar motive (C)	2	19	21
		Enclosure with animal scenery (D)	2	11	13
		Enclosure with dog motive (F)	2	6	8
		Enclosure with leopard motive (H)	1	8	9
		Enclosure E	-	2	2
LAYER II	Rectangular	Enclosure G	-	2	2
		Enclosure with lion motive (L)	4	2	6

The pillars in the enclosure are in two groups as pillars with motive and without motive. There are three pillars with motive and four pillars without motive in enclosure with snake motive (A). There are five pillars with motive and six pillars without motive in enclosure with fox motive (B). There are 15 pillars with motive and six pillars without motive in enclosure with wild boar motive (C). There are 11 pillars with motive and two pillars without motive in enclosure with animal scenery motive (D). There are five pillars with motive and three pillars without motive in enclosure with dog motive (F). There are seven pillars with motive and two pillars without motive in enclosure with leopard motive (H). There are two pillars without motive in enclosure G. There are three pillars with motive and three pillars without motive in enclosure with lion motive (L) (Table 2.13).

Table 2.13. Pillar numbers with motives and without motives

Layer	Plan	Enclosure name	Pillars with motive	Pillars without motive	Total
LAYER III	Oval	Enclosure with snake motive (A)	3	4	7
	Circular	Enclosure with fox motive (B)	5	6	11
		Enclosure wild boar motive (C)	15	6	21
		Enclosure with animal scenery (D)	11	2	13
		Enclosure with dog motive (F)	5	3	8
		Enclosure with leopard motive (H)	7	2	11
		Enclosure E	-	-	-
LAYER II	Rectangular	Enclosure G	-	2	2
		Enclosure with lion motive (L)	3	3	6

### 2.3.4. Pillar Dimension

The dimensions of the pillars in the enclosure can be defined in width, length and height. The sizes of the pillars in the center and on the periphery differ. There are no central pillars in enclosure with snake motive (A), enclosure E and enclosure G. The base of the central pillars of Enclosure E were found during the excavations, but the pillars were not recovered. The pillars of enclosure G were not found in the excavated part, as the G enclosure was only partially revealed as a result of the excavations.

Table 2.14. Pillar dimensions

Layer	Plan	Enclosure name	Central pillars	Peripheral pillars
LAYER III	Oval	Enclosure with snake motive (A)	-	Length: 72 – 175 cm Width: 28 – 67 cm Height: 172 – 315 cm
	Circular	Enclosure with fox motive (B)	Length: 156 – 166 cm Width: 66 cm Height: 360 cm	Length: 75 – 171 cm Width: 30 – 61 cm Height: 300 – 330 cm
		Enclosure wild boar motive (C)	Length: 180 cm Width: 55 cm Height: 500 cm	Length: 62 – 190 cm Width: 23 – 90 cm Height: 235 – 355 cm
		Enclosure with animal scenery (D)	Length: 230 – 240 cm Width: 40 cm Height: 550 cm	Length: 90- 190 cm Width: 30 – 60 cm Height: 350 – 490 cm
		Enclosure with dog motive (F)	Length: 120 cm Width: 40 cm Height: 90 – 170 cm	Length: 70 – 90 cm Width: 25 – 40 cm Height: 90 – 215 cm
		Enclosure with leopard motive (H)	Length: 80 cm Width: 50 cm Height: 270 cm	Length: 60 – 95 cm Width: 25 – cm Height: 200 – 227 cm
		Enclosure E	-	-
LAYER II		Enclosure G	-	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
	Rectangular	Enclosure with lion motive (L)	Length: 78 – 93 cm Width: 21 – 32 cm Height: 145 – 184 cm	Length: 43 – 45 cm Width: 20 – 28 cm Height: 100 – 190 cm

The size of the pillars in the center and the periphery of the circular planned enclosures with fox motive (B), wild boar motive (C) and animal scenery motive (D) are similar. The size of the pillars on the periphery of the oval-planned enclosure with snake motive (A) are similar to enclosure with fox motive (B), wild boar motive (C) and animal

scenery motive (D) in the same layer. However, the periphery and central pillars of the circular planned enclosure with dog motive (F) and leopard motive (H) in Layer III are in smaller size (Table 2.14).

The dimension of central pillars and peripheral pillars are differentiated with the ones with motive and without motive. Pillars with motive are in bigger dimension than pillars without motive in enclosure with snake motive (A), enclosure with wild boar motive (C), enclosure with leopard motive (H). Pillars with motive and without motive are in similar dimension in enclosure with fox motive (B) and enclosure with animal scenery motive (D). Pillars without motive are larger in dimension in enclosure with dog motive (F) and enclosure with lion motive (L) (Table 2.15).

Table 2.15. Pillar dimensions with motives and without motives

Layer	Plan	Enclosure Name	With motive	Without motive
<b>LAYER III</b>	<b>Oval</b>	Enclosure with snake motive (A)	Length: 138 – 175 cm Width: 55 – 67 cm Height: 210 – 315 cm	Length: 72 – 173 cm Width: 28 – 47 cm Height: 172 – 184
	<b>Circular</b>	Enclosure with fox motive (B)	Length: 84 – 171 cm Width: 32 – 66 cm Height: 330 – 360 cm	Length: 75 – 154 cm Width: 30 – 60 cm Height: 300 – 330 cm
		Enclosure wild boar motive (C)	Length: 80 – 197 cm Width: 21 – 72 cm Height: 190 – 500 cm	Length: 62 – 112 cm Width: 23 – 77 cm Height: 235 – 330 cm
		Enclosure with animal scenery (D)	Length: 85 – 238 cm Width: 24 – 49 cm Height: 290 – 550 cm	Length: 150 – 186 cm Width: 53 – 41 cm Height: 390 cm
		Enclosure with dog motive (F)	Length: 78 – 118 cm Width: 33 – 48 cm Height: 90 – 170 cm	Length: 70 – 120 cm Width: 30 – 40 cm Height: 90 – 215 cm
		Enclosure with leopard motive (H)	Length: 88 – 140 cm Width: 41 – 63 cm Height: 200 – 270 cm	Length: 95 cm Width: 25 cm Height: 200 cm
		Enclosure E	-	-
<b>LAYER II</b>		Enclosure G	-	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
	<b>Rectangular</b>	Enclosure with lion motive (L)	Length: 44 – 78 cm Width: 29 – 32 cm Height: 100 – 160 cm	Length: 45 – 93 cm Width: 27 – 32 cm Height: 172 – 190 cm

### 2.3.5. Pillar Base

Three of the nine enclosures in the area have a base under the central pillars. These are enclosure with wild boar motive (C), enclosure with animal scenery motive (D) and enclosure E. Bases belonging to enclosure with wild boar motive (C) and the with animal scenery motive (D) are larger than the ones belonging to enclosure E. These bases were formed by processing from the bedrock, the material is limestone. There is animal (duck) shaped motive on the base of the eastern central pillar of enclosure with animal scenery motive (D). Only example of motive on a base was observed in this enclosure (Table 2.16).

Table 2.16. Base number and dimensions

Layer	Plan	Enclosure name	Base number	Base dimension
LAYER III	Oval	Enclosure with snake motive (A)	-	-
		Enclosure with fox motive (B)	-	-
	Circular	Enclosure wild boar motive (C)	2	Length: 323 – 315 cm Width: 200 – 204 cm Height: 30 cm
		Enclosure with animal scenery (D)	2	Length: 268 – 276 cm Width: 178 – 201 cm Height: 40 cm
		Enclosure with dog motive (F)	-	-
		Enclosure with leopard motive (H)	-	-
		Enclosure E	2	Length: 253 – 233 cm Width: 176 cm Height: 10 cm
LAYER II	Rectangular	Enclosure G	-	-
		Enclosure with lion motive (L)	-	-

### 2.3.6. Floor Material

Floor materials of enclosures are differentiated as limestone smoothed from bedrock and terrazzo floor. Enclosure with snake motive (A), enclosure with fox motive (B), enclosure with dog motive (F), enclosure with leopard motive (H), enclosure with lion motive (L) and enclosure G have terrazzo floor. Enclosure with wild boar motive (C), enclosure with animal scenery motive (D) and enclosure E have limestone floor. There is no common floor material in layers. Limestone is observed in Layer III; terrazzo is observed in both layers. Yet limestone floor is detected only in circular planned enclosures of Layer III (Table 2.17).

Table 2.17. Floor materials of enclosures

Layer	Plan	Enclosure name	Limestone	Terrazzo
LAYER III	Oval	Enclosure with snake motive (A)		●
	Circular	Enclosure with fox motive (B)		●
		Enclosure wild boar motive (C)	●	
		Enclosure with animal scenery (D)	●	
		Enclosure with dog motive (F)		●
		Enclosure with leopard motive (H)		●
		Enclosure E	●	
LAYER II		Enclosure G		●
	Rectangular	Enclosure with lion motive (L)		●

### 2.4. Alignment Characteristics

Alignment characteristics of enclosures were analyzed under the headings of geometric form, area of enclosures, form of motives in pillar and location of motives between enclosures and layers.

### 2.4.1. Geometric Form of Enclosures

The geometric forms of the enclosures in the area are organized in circular, oval or rectangular form. The wall or walls row surrounding the enclosure area emphasized these forms. Plan of enclosure with snake motive (A) is oval, plan of enclosure with lion motive (L) is rectangular. Plan of enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery motive (D), enclosure with dog motive (F), enclosure with leopard motive (H), enclosure E and enclosure G is circular.

Seven of nine enclosures in the site have circular plan, six of them are dated to Layer III, one of them is dated to Layer II. So circular plan geometry is not special to oldest layer (Layer III), it repeats in Layer II (Table 2.18).

Table 2.18. Geometric form of enclosures

Layer	Enclosure name	Circular	Oval	Rectangular
LAYER III	Enclosure with snake motive (A)		●	
	Enclosure with fox motive (B)	●		
	Enclosure wild boar motive (C)	●		
	Enclosure with animal scenery (D)	●		
	Enclosure with dog motive (F)	●		
	Enclosure with leopard motive (H)	●		
	Enclosure E	●		
LAYER II	Enclosure with lion motive (L)			●
	Enclosure G	●		

### 2.4.2. Area

The areas of the enclosures unearthed after excavations might be classified as small (between 32 and 84 m<sup>2</sup>), medium (between 116 – 199 m<sup>2</sup>) and large (more than 200 m<sup>2</sup>).

The area of enclosure with snake motive (A), enclosure with dog motive (F), enclosure with lion motive, enclosure E and enclosure G are small. The area of enclosure with fox motive (B), enclosure with animal scenery (D) and enclosure with leopard motive (H) are medium. Area of enclosure with wild boar motive (C) is large. Enclosure with wild boar motive (C) is the most differentiated one from the other ones in the same layer (Table 2.19).

Table 2.19. Area of enclosures

Layer	Form	Enclosure name	Small	Medium	Large
LAYER III	Oval	Enclosure with snake motive (A)	66 m <sup>2</sup>		
	Circular	Enclosure with fox motive (B)		116 m <sup>2</sup>	
		Enclosure wild boar motive (C)			387 m <sup>2</sup>
		Enclosure with animal scenery (D)		199 m <sup>2</sup>	
		Enclosure with dog motive (F)	84 m <sup>2</sup>		
		Enclosure with leopard motive (H)		194 m <sup>2</sup>	
		Enclosure E	77 m <sup>2</sup>		
LAYER II	Rectangular	Enclosure G	32 m <sup>2</sup>		
		Enclosure with lion motive (L)	64 m <sup>2</sup>		

### 2.4.3. Diameter/Diagonal of Enclosures

The diameter/diagonal of the enclosures varied between seven meters and 30 meters. All diameter/diagonal of the enclosures were listed on the table (Table 2.20).

The diameter/diagonal of oval planned enclosure (enclosure with snake motive (A)) was 10 meters, the diameter/diagonal of rectangular planned enclosure (enclosure with lion motive (L)) was seven meters and the diameter/diagonal of circular planned enclosures (enclosure with fox motive (B), enclosure with wild boar motive (C),

enclosure with animal scenery motive (D), enclosure with dog motive (F), enclosure with leopard motive (H), enclosure E, enclosure G) varied between eight meters and 30 meters. The diameter/diagonal of the enclosures was bigger in layer III.

Table 2.20. The diameter/diagonal of the enclosures

Layer	Plan	Enclosure name	Diameter/ Diagonal
LAYER III	Oval	Enclosure with snake motive (A)	10 m
	Circular	Enclosure with fox motive (B)	9 m
		Enclosure wild boar motive (C)	30 m
		Enclosure with animal scenery (D)	15 m
		Enclosure with dog motive (F)	8 m
		Enclosure with leopard motive (H)	9.5 m
		Enclosure E	8 m
LAYER II	Rectangular	Enclosure G	8 m
		Enclosure with lion motive (L)	7 m

#### 2.4.4. Form of Motives in Pillars

The motives on the pillars are arranged in the form of animals, geometric shapes or animal + geometric shapes. There is only animal-shaped motive in enclosure with snake motive (A) and enclosure with fox motive (B). There is animal motive on eight pillars and geometric motives on seven pillars of enclosure with wild boar motive (C). There are animals on eight pillars and animal + geometric motive on three pillars of enclosure with animal scenery motive (D). There are animal-shaped motives on two pillars, geometric motives on two pillars, and animal + geometric shaped motives on one pillar of enclosure with dog motive (F). There are animal-shaped pillars on four pillars, geometric shaped on two pillars, and animal + geometric shaped pillars on one pillar of enclosure with leopard motive (H). There is an animal on two pillars and a geometric motive on one pillar of enclosure with lion motive (L) (Table 2.21). Animal shaped motives are more common than geometric shaped motive in pillars. Only enclosure with

leopard motive (H) and enclosure with dog motive (F) have animal shaped, geometric shaped and both motives together.

Table 2.21. Form of motives on pillars

Layer	Plan	Enclosure name	Pillar with animal motives	Pillars with geometric motives	Pillars with combined motive
LAYER III	Oval	Enclosure with snake motive (A)	3	-	-
	Circular	Enclosure with fox motive (B)	5	-	-
		Enclosure wild boar motive (C)	8	7	
		Enclosure with animal scenery (D)	8	-	3
		Enclosure with dog motive (F)	2	2	1
		Enclosure with leopard motive (H)	4	2	1
		Enclosure E	-	-	
LAYER II	Rectangular	Enclosure G	-	-	
		Enclosure with lion motive (L)	2	1	

#### 2.4.5. Location of Motives in Pillars

The motives on the pillar are arranged on different surfaces of the T-shaped pillar. The motives are located on the wide or narrow surfaces of the head of the pillar and on the wide or narrow surfaces of the body. The motives of the enclosure with snake motive (A) are found on the body parts of the pillars. In enclosure with fox motive (B), three of the pillars have motives on the body and three on the head. In enclosure with wild boar (C), motives are on the body of 10 pillars, on the head of two pillars, and on both the body and head of two pillars. The motives in enclosure with animal scenery (D) are on head of six pillars, on both the body and head of three pillars. Motives in enclosure with dog motive (F) are on the body of three pillars and on the head of two pillars. The motives in enclosure with leopard motive (H) are on the body of five pillars, on the head of one

pillar, and on both the body and head of one pillar. The motives in enclosure with lion motive (L) are on the body of one pillar, the head of one pillar, and both body and head on one pillar (Table 2.22).

Table 2.22. Location of motives on pillars

Layer	Form	Enclosure name	Pillars having motives on pillar body	Pillars having motives on pillar head	Pillars having motives on pillar head and body
LAYER III	Oval	Enclosure with snake motive (A)	3	-	-
	Circular	Enclosure with fox motive (B)	3	3	-
		Enclosure wild boar motive (C)	10	2	3
		Enclosure with animal scenery (D)	6	-	3
		Enclosure with dog motive (F)	3	1	-
		Enclosure with leopard motive (H)	5	1	1
		Enclosure E	-	-	-
LAYER II		Enclosure G	-	-	-
	Rectangular	Enclosure with lion motive (L)	1	1	1

The common location for motives on pillar is the body. The motives on pillars head is less common, like the motives on both. The enclosures with motives on pillars body and head are enclosure with wild boar motive (C), enclosure with leopard motive (H) and enclosure with lion motive (L).

## 2.5. Relationships Between Components of Enclosures

The relationships between components of enclosures that enclosure area, pillar number, pillar dimension, central pillar dimension, peripheral pillar dimension, number of wall row, the distance between central pillars, central pillar height, angles between pillars, pillar base area were analyzed.

### 2.5.1. Enclosure Area and Pillar Number

The area of the buildings and the number of pillars in the enclosures are given in the table below. The probability of obtaining an accurate result is low when the total number of pillars of the enclosures, which were not completely unearthed as a result of the excavations, is compared with the number of pillars belonging to the enclosures that were completely excavated. The enclosures that were completely excavated are enclosure with fox motive (B), wild boar motive (C), animal scenery motive (D), lion motive and enclosure E. The enclosure with snake motive (A), dog motive (F), leopard motive (H) and enclosure G have only been partially excavated.

According to the comparison made with the enclosure area and the number of pillars, the enclosure with wild boar motive (C) has the largest area and largest number of pillars. However, there is a difference in the number of pillars of enclosures with similar areas in other enclosures. The number of pillars of enclosure with fox motive (B) and animal scenery motive (D), which have a medium-sized area, are 11 and 13, respectively. When enclosure with dog motive (F) is fully revealed, the number of pillars in the enclosure may increase. The enclosure with lion motive, dog motive (F) and enclosure E, which are small in area, contain 6, 8 and two pillars, respectively. In this case, it is possible to say that the number of pillars in the enclosures is not directly proportional to the enclosure area (Table 2.23).

Table 2.23. Enclosure area and pillar numbers

Layer	Plan	Enclosure name	Area	Pillar number
LAYER III	Oval	Enclosure with snake motive (A)	Small	7
		Enclosure with fox motive (B)	Medium	11
	Circular	Enclosure wild boar motive (C)	Large	21
		Enclosure with animal scenery (D)	Medium	13
		Enclosure with dog motive (F)	Small	8
		Enclosure with leopard motive (H)	Medium	9
		Enclosure E	Small	2
LAYER II	Rectangular	Enclosure G	Small	2
		Enclosure with lion motive (L)	Small	6

## 2.5.2. Enclosure Area and Pillar Dimension

The area of the enclosures in the site and the dimensions of the pillars in the enclosures are given in the table below (Table 2.23). Although the area of the circular planned enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D) belonging to Level III are different, the central and peripheral pillars are of similar dimensions. Although the area of the enclosure with wild boar motive (C) is large, it is of similar dimensions to the central and peripheral pillars of enclosure with fox motive (B) and with animal scenery motive (D).

Table 2.24. Enclosure area and pillar dimension

Layer	Plan	Enclosure name	Area	Central pillars	Peripheral pillars
LAYER III	Oval	Enclosure with snake motive (A)	Small	-	Length: 180 – 240 cm Width: 40 – 60 cm Height: 200 – 315 cm
	Circular	Enclosure with fox motive (B)	Medium	Length: 160 – 170 cm Width: 80 cm Height: 400 cm	Length: 80 – 180 cm Width: 40 – 70 cm Height: 200 – 400 cm
		Enclosure wild boar motive (C)	Large	Length: 180 cm Width: 60 cm Height: 500 cm	Length: 80 – 190 cm Width: 30 – 90 cm Height: 400 cm
		Enclosure with animal scenery (D)	Medium	Length: 220 cm Width: 50 – 60 cm Height: 550 cm	Length: 90 – 190 cm Width: 30 – 60 cm Height: 300 cm
		Enclosure with dog motive (F)	Small	Length: 120 cm Width: 50 cm Height: 200 cm	Length: 80 – 90 cm Width: 40 – 50 cm Height: 150 cm
		Enclosure with leopard motive (H)	Medium	Length: 80 cm Width: 50 cm Height: 80 cm	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
		Enclosure E	Small	-	-
LAYER II	Rectangular	Enclosure G	Small	-	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
		Enclosure with lion motive (L)	Small	Length: 78 – 91 cm Width: 21 – 30 cm Height: 145 – 184 cm	Length: 43 – 44 cm Width: 20 – 23 cm Height: 100 – 190 cm

Enclosure with snake motive (A), which is a layer III structure; has a different plan and pillars in different sizes than enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D). Enclosure with dog motive (F) and leopard motive (H) belonging to layer III have smaller pillars compared to the other layer

III structures (enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D)). The size of the pillars belonging to enclosure with lion motive and enclosure G in layer II are similar to the pillars of enclosure with dog motive (F) and with leopard motive (H) in layer III. In this case, it can be stated that the dimensions of the pillars in the enclosures are not similar to the other enclosure in the same layer. The dimensions of the pillar are not directly proportional to the area of enclosure (Table 2.24).

### 2.5.3. Diameter/Diagonal, Total Pillar Number and Pillar Dimensions of Enclosures

The diameter/diagonal of the enclosures, total pillar number and central pillar height were given in the table (Table 2.25). Enclosure with wild boar motive (C) with the biggest diameter had the maximum pillar number. Enclosure with snake motive (A) with bigger diagonal than enclosure with fox motive (B) had less pillar number. Enclosure with dog motive (F), enclosure with leopard motive (H) and enclosure G had not unearthed completely after excavations. So, total number of these enclosures might increase.

Table 2.25. The diameter/diagonal, pillar number and pillar dimension of enclosures

Layer	Plan	Enclosure name	Diameter/ Diagonal	Total pillar number	Central pillar height
<b>LAYER III</b>	<b>Oval</b>	Enclosure with snake motive (A)	10 m	7	-
	<b>Circular</b>	Enclosure with fox motive (B)	9 m	11	400 cm
		Enclosure wild boar motive (C)	30 m	21	500 cm
		Enclosure with animal scenery (D)	15 m	13	550 cm
		Enclosure with dog motive (F)	8 m	8	200 cm
		Enclosure with leopard motive (H)	9.5 m	9	80 cm
		Enclosure E	8 m	2	-
<b>LAYER II</b>	<b>Rectangular</b>	Enclosure G	8 m	2	-
		Enclosure with lion motive (L)	7 m	6	145 – 184 cm

In this case, enclosure E had the lowest total pillar number according to diameter. Enclosure with wild boar motive (C) had the biggest diameter, yet central pillar height was not the longest one. Enclosure with animal scenery motive (D) had the longest central pillar height. Three enclosures from layer III (enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery motive(D)) had close dimensions of central pillar height. However, two enclosures from same layer (enclosure with dog motive (F), enclosure with leopard motive (H)) had shorter central pillars and one enclosure from layer II (enclosure with lion motive(L)) had close central pillar height.

#### 2.5.4. Central Pillar Dimension and Peripheral Pillar Dimension

There is no central pillar in structure G and enclosure with snake motive (A) unearthed in the area. In enclosure E, only the bases of the central pillars have survived to the present day (Table 2.26).

Table 2.26. Dimension of central and peripheral pillars

Layer	Plan	Enclosure name	Central pillars	Peripheral pillars
LAYER III	Oval	Enclosure with snake motive (A)	-	Length: 180 – 240 cm Width: 40 – 60 cm Height: 200 – 315 cm
	Circular	Enclosure with fox motive (B)	Length: 160 – 170 cm Width: 80 cm Height: 400 cm	Length: 80 – 180 cm Width: 40 – 70 cm Height: 200 – 400 cm
		Enclosure wild boar motive (C)	Length: 180 cm Width: 60 cm Height: 500 cm	Length: 80 – 190 cm Width: 30 – 90 cm Height: 400 cm
		Enclosure with animal scenery (D)	Length: 220 cm Width: 50- 60 cm Height: 550 cm	Length: 90 – 190 cm Width: 30 – 60 cm Height: 300 cm
		Enclosure with dog motive (F)	Length: 120 cm Width: 50 cm Height: 200 cm	Length: 80 – 90 cm Width: 40 – 50 cm Height: 150 cm
		Enclosure with leopard motive (H)	Length: 80 cm Width: 50 cm Height: 80 cm	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
		Enclosure E	-	-
LAYER II		Enclosure G	-	Length: 60 – 80 cm Width: 30 cm Height: 200 cm
	Rectangular	Enclosure with lion motive (L)	Length: 78 – 91 cm Width: 21 – 30 cm Height: 145 – 184 cm	Length: 43 – 44 cm Width: 20 – 23 cm Height: 100 – 190 cm

The central pillars are larger in size and higher in height than the pillars in the periphery in enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D) in layer III. There is no difference between the sizes of the central pillars and peripheral pillars in other enclosure (enclosure with dog motive (F), with leopard motive (H)) in layer III and in enclosure with lion motive in layer II. In this case, it is stated as building the central pillars larger than the perimeter pillars is not a common construction system for all structures in the site. In the earliest built enclosures, the central pillars are larger than the pillars on the periphery. Since it was observed that this system was not applied in the structures built later, it is valid that the construction system has also changed in the site (Table 2.26).

### 2.5.5. Enclosure Area and Number of Wall Row

The enclosures with snake motive (A), with fox motive (B), with wild boar motive (C) and with animal scenery motive (D) in layer III are surrounded by more than one row of walls. The remaining enclosures (enclosure with dog motive (F), with leopard motive (H), with lion motive (L), enclosure E and G) are surrounded by a single row wall (Table 2.27).

Table 2.27. Enclosure area and number of wall row

Layer	Plan	Enclosure name	Area	Wall row
LAYER III	Oval	Enclosure with snake motive (A)	Small	Double row
	Circular	Enclosure with fox motive (B)	Medium	Double row
		Enclosure wild boar motive (C)	Large	Four row
		Enclosure with animal scenery (D)	Medium	Double row
		Enclosure with dog motive (F)	Small	Single row
		Enclosure with leopard motive (H)	Medium	Single row
		Enclosure E	Small	Single row
LAYER II	Rectangular	Enclosure G	Small	Single row
		Enclosure with lion motive (L)	Small	Single row

Enclosure with wild boar motive (C) with the largest area is surrounded by four wall rows. Medium-sized buildings dated to layer III were surrounded by double walls,

while the remaining buildings were surrounded by a single wall row. In this case, the number of walls limiting the enclosure area does not differentiate between layers (Table 2.27).

### 2.5.6. Dimension of Central Pillars and the Distance Between Central Pillars

Dimension of central pillars are the largest in the enclosure with animal scenery, the distance between central pillars is the longest. The area of enclosure with animal scenery motive (D) is the largest, it is consistent with all area, dimension of pillars and the distance between pillars. Yet the dimensions of pillars belonging to enclosure with fox motive (B) and enclosure with wild boar motive (C) are similar, the distances are quite different from each other. So, the construction of pillars in each enclosure is different in example (Table 2.28).

Table 2.28. Dimension of central pillars and the distance in between

Layer	Plan	Enclosure name	Central pillars	Distance between central pillars
LAYER III	Oval	Enclosure with snake motive (A)	-	
	Circular	Enclosure with fox motive (B)	Length: 156 – 166 cm Width: 66 cm Height: 360 cm	321 cm
		Enclosure wild boar motive (C)	Length: 180 cm Width: 55 cm Height: 500 cm	416 cm
		Enclosure with animal scenery (D)	Length: 230 – 240 cm Width: 40 cm Height: 550 cm	497 cm
		Enclosure with dog motive (F)	Length: 120 cm Width: 40 cm Height: 90 – 170 cm	295 cm
		Enclosure with leopard motive (H)	Length: 80 cm Width: 50 cm Height: 270 cm	-
		Enclosure E	-	
LAYER II		Enclosure G	-	
	Rectangular	Enclosure with lion motive (L)	Length: 78 – 93 cm Width: 21 – 32 cm Height: 145 – 184 cm	222 cm – 191 cm

### 2.5.7. Ratio of Area to Central Pillar Height ( $R = a/h$ )

The ratio of area to central pillar height is related with the third dimension of enclosures. So this analysis would help to identify if there is any common or similar ratio repeated in construction process between enclosures or layers.

Since the total area of enclosure with snake motive (A), enclosure with leopard motive (H), enclosure E and enclosure G are not known exactly, these enclosures are not included in the analysis (Figure 2.28). The ratio of area to central pillar is 0.32 in enclosure with fox motive (B), 0.77 in enclosure with wild boar motive (C), 0.36 in enclosure with animal scenery motive (D), 0.68 in enclosure with dog motive (F) and 0.34 in enclosure with lion motive. The ratio is close to each other in enclosure with fox motive (B), enclosure with animal scenery (D) and enclosure with lion motive. Two of enclosures are from layer III and one of them is from layer II. So, there might be a constant construction ratio between enclosures and also between layers (Table 2.29).

Table 2.29. Ratio of area to central pillar height

Layer	Plan	Enclosure name	Ratio of area to central pillar height
LAYER III	Oval	Enclosure with snake motive (A)	-
	Circular	Enclosure with fox motive (B)	0.32
		Enclosure wild boar motive (C)	0.77
		Enclosure with animal scenery (D)	0.36
		Enclosure with dog motive (F)	0.68
		Enclosure with leopard motive (H)	-
		Enclosure E	-
LAYER II	Rectangular	Enclosure G	-
		Enclosure with lion motive (L)	0.34

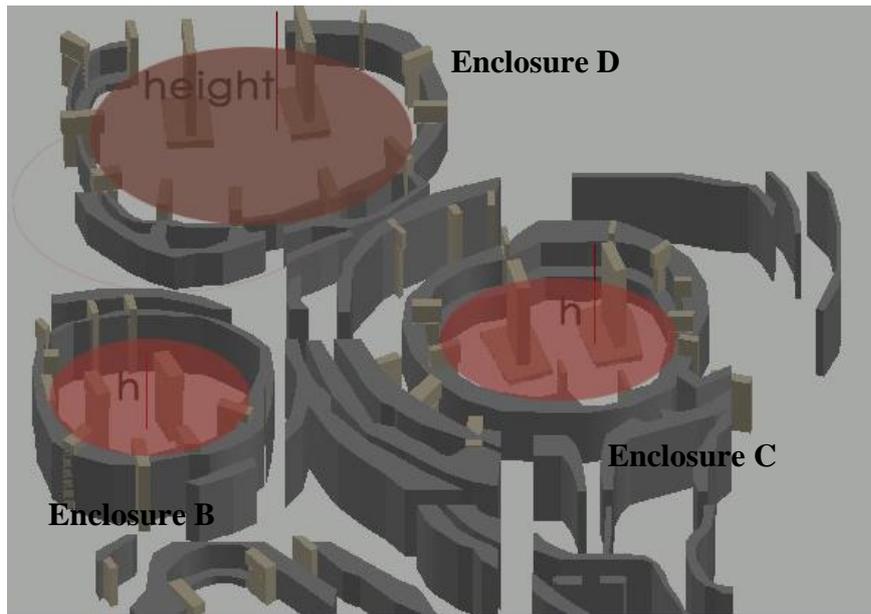


Figure 2.27. Area of enclosure B, C and D

### 2.5.8. Ratio of Diameter/Diagonal to Pillar Height ( $R = d/h$ )

The ratio of diameter or diagonal to pillar height is analyzed to find out is there any relationship between length of enclosure and height of vertical element that is central pillar.

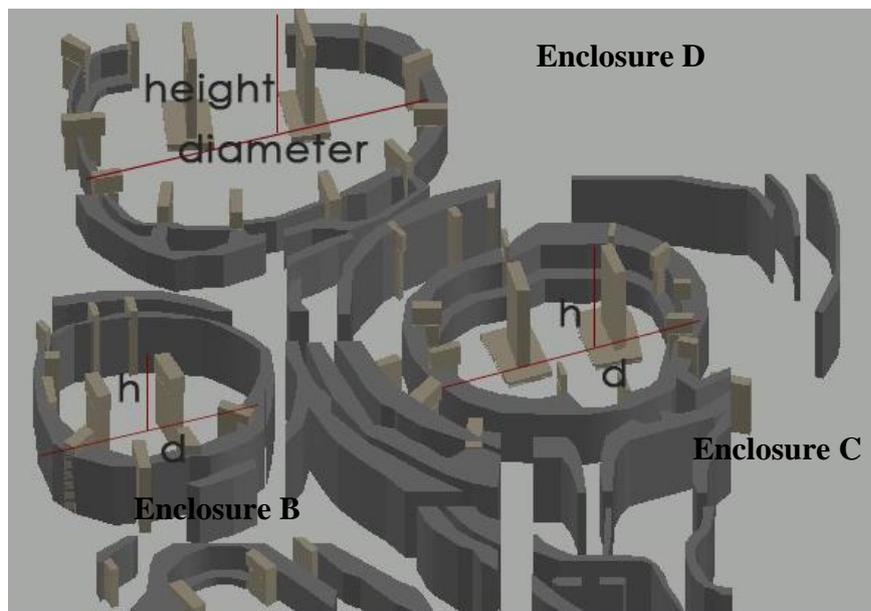


Figure 2.28. Diameter of enclosure B, C and D, and central pillar height

Since the total area of enclosure with snake motive (A), enclosure with leopard motive (H), enclosure E and enclosure G are not known exactly, these enclosures are not included in the analysis (Figure 2.29). The ratio of diameter to central pillar height is 2.5 in enclosure with fox motive (B), 2.5 in enclosure with wild boar motive (C), 2.7 in enclosure with animal scenery motive (D), and 3.1 in enclosure with lion motive.

The ratio is the same in enclosure with fox motive (B), enclosure with wild boar motive (C) and the ratio in enclosure with animal scenery motive (D) is close to them. Enclosure with lion motive from layer II is not close to other enclosure's ratio (Table 2.30). So, it can be stated as a proportion between diagonal/diameter and central pillar height was provided. All 3 enclosures have different diameter, so central pillar height must be arranged differently to sustain this ratio.

Table 2.30. Ratio of diameter/diagonal to central pillar height

Layer	Plan	Enclosure name	Ratio of diameter/diagonal to central pillar height
LAYER III	Oval	Enclosure with snake motive (A)	-
	Circular	Enclosure with fox motive (B)	2.5
		Enclosure wild boar motive (C)	2.5
		Enclosure with animal scenery (D)	2.7
		Enclosure with dog motive (F)	-
		Enclosure with leopard motive (H)	-
		Enclosure E	-
LAYER II		Enclosure G	-
	Rectangular	Enclosure with lion motive (L)	3.1

### 2.5.9. Angles Between Pillars

Peripheral pillars were located towards to central pillars. Centers of enclosures and peripheral pillars were identified in Haklay and Gopher study (Haklay and Gopher 2020).

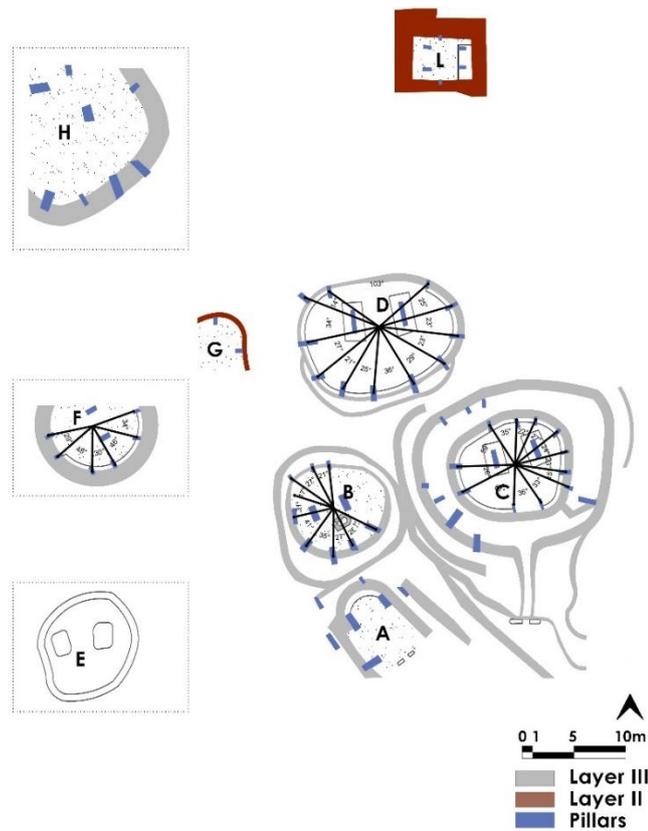


Figure 2.29. Angles between pillars

Angles between peripheral pillar were analyzed to understand the range of these angles and the repeating angles (Figure 2.30). These angles vary in between  $14^{\circ}$  and  $103^{\circ}$  in general. In layer III, angles between peripheral pillars are in between  $14^{\circ}$  and  $61^{\circ}$ , only in one spot angle is  $103^{\circ}$ . This spot is where ornamented holed stone is located through north direction in enclosure with animal scenery motive (D) (See 1.4.1.4). In layer II, the angles are in between  $46^{\circ}$  and  $72^{\circ}$ . The  $21^{\circ}$  angle is seen in twice; the  $23^{\circ}$  angle is seen third time in all enclosures. The peripheral pillars are organized around central point with acute angles in all enclosures and layers, except one example in enclosure with animal scenery motive (D). This one exceptional example might be designed on purpose to highlight the ornamented elements. So it can be stated as; in enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with dog motive (F) and enclosure with lion motive, the highlighted elements are central pillars but the highlighted elements are central pillars and ornamented holed stone in enclosure with animal scenery motive (D) (Figure 2.30).

## 2.5.10. Distances Between Pillars

Distances between peripheral pillars inside the peripheral wall were analyzed to understand the range of these distances and the repeating distances (Figure 2.31).

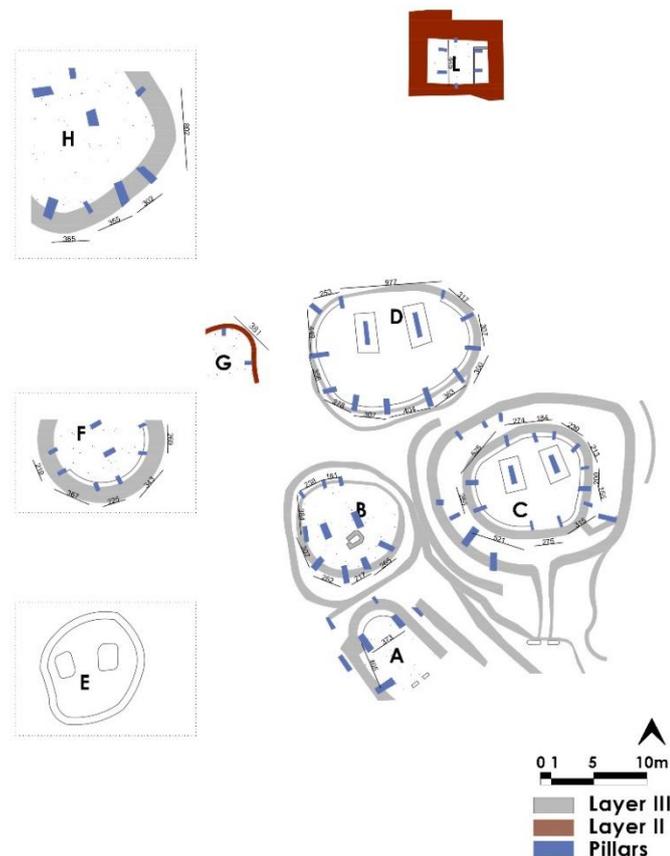


Figure 2.30. Distances between pillars

The distances between peripheral pillar were 373 and 465 cm in enclosure with snake motive (A). The distances between peripheral pillar were in between 161 and 384 cm in enclosure with fox motive (B). The distances between peripheral pillar were in between 155 and 525 cm in enclosure with wild boar motive (C). The distances between peripheral pillar were in between 307 and 977 cm in enclosure with animal scenery motive (D). The distances between peripheral pillar were in between 219 and 367 cm in enclosure with dog motive (F). The distances between peripheral pillar were in between 302 and 802 cm in enclosure with leopard motive (H). The distance between opposite peripheral pillars were 445 cm in enclosure with lion motive (L). The distance between

peripheral pillars were 381 cm in enclosure G. The repeating distance was observed in enclosure with animal scenery motive (D), the distance was 307 cm. it was observed in east wall and in southwest wall. There is no other repeating distance in enclosures.

### 2.5.11. Disposition of Pillars with Walls

Pillars in periphery walls were analyzed according to their disposition with walls (Table 2.31). Most of the peripheral pillars are perpendicular to walls, only 6 pillars of enclosure with snake motive (A) and 1 pillar of enclosure with fox motive (B) are parallel to the walls. Six of 7 pillars belonging to enclosure with snake motive (A) are perpendicular and enclosure dated back to transition phase between layer III and layer II. So it is assumed that this constructing pillars parallel to walls as a construction technique is implemented in only one enclosure of the unearthing enclosures. Either this technique is not found efficient or easy to build so it was not preferred in younger layers.

Table 2.31. Disposition of pillars

Layer	Plan	Enclosure name	Pillars perpendicular to wall	Pillars parallel to wall
LAYER III	Oval	Enclosure with snake motive (A)	1	6
		Enclosure with fox motive (B)	8	1
	Circular	Enclosure wild boar motive (C)	18	
		Enclosure with animal scenery (D)	11	
		Enclosure with dog motive (F)	6	
		Enclosure with leopard motive (H)	5	
		Enclosure E	-	
LAYER II	Rectangular	Enclosure G	2	
		Enclosure with lion motive (L)	6	

### 2.5.12. Ratio of Area to Pillar Base Area ( $R = a/b$ )

Ratio of area to pillar base area was analyzed to examine is there a common principle to define the pillar base dimensions.

Table 2.32. Ratio of area to pillar base area

Layer	Plan	Enclosure name	Pillar base area	Ratio of area to pillar base area
LAYER III	Oval	Enclosure with snake motive (A)	-	
		Enclosure with fox motive (B)	-	
	Circular	Enclosure with wild boar motive (C)	Length: 323 – 315 cm Width: 200 – 204 cm Height: 30 cm	39.81
		Enclosure with animal scenery (D)	Length: 268 – 276 cm Width: 178 – 201 cm Height: 40 cm	23.80
		Enclosure with dog motive (F)	-	
		Enclosure with leopard motive (H)	-	
Enclosure E	Length: 253 – 233 cm Width: 176 cm Height: 10 cm	9.6		
LAYER II		Enclosure G	-	
	Rectangular	Enclosure with lion motive	-	

This ratio was analyzed in enclosures having pillar base as enclosure with wild boar motive (C), enclosure with animal scenery motive (D) and enclosure E (Table 2.32). Ratio of area to pillar base is 18.77 in enclosure with fox motive (B), 39.81 in enclosure with animal scenery motive (D) and 9.6 in enclosure E. The ratio is not same or close in any enclosure. So there is no any common principle defining pillar base dimensions between enclosures.

## 2.6. Evaluation of Alignment Characteristics and Construction

### Technique

Evaluations from the analysis of alignment characteristics and construction technique of enclosures in Göbekli Tepe are as follows:

- Among all nine enclosures in the site, seven of them have circular plan, six (enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery motive (D), enclosure with dog motive (F), enclosure with leopard motive (H), enclosure E) of them are dated to Layer III, one (enclosure

G) of them are dated to Layer II. So circular plan geometry is not specific to oldest layer (Layer III), it repeats in Layer II.

- Four (enclosure with snake motive (A), enclosure with fox motive (B), enclosure with wild boar (C), enclosure with animal scenery (D)) enclosures belonging layer III have secondary wall rows, other enclosures belonging to layer III and layer II have single row.
- The area of enclosure with snake motive (A), enclosure with dog motive (F), enclosure with lion motive, enclosure E and enclosure G are small. The area of enclosure with fox motive (B), enclosure with animal scenery (D) and enclosure with leopard motive (H) are medium. Area of enclosure with wild boar motive is large. The area of enclosures from the same layer vary.
- There is no common floor material between layers. Limestone is observed in layer III; terrazzo is observed in both layers. Yet limestone floor is observed only in circular planned enclosures of layer III.
- Among all enclosures, first row of enclosure with snake motive (A), first row of enclosure with wild boar motive (C), enclosure with dog motive (F), enclosure with leopard motive (H) from layer III and enclosure with lion motive from layer II have uniform wall thickness. The wall parts smaller than 60 cm are located northeast in enclosure with wild boar (C) and northwest in enclosure with animal scenery (D).
- The number of pillars are not repeated in enclosures; each enclosure has different total number of pillars. There are two central pillars common in enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery motive (D) and enclosure with dog motive (F). the number of central pillars rises to 4 in layer II, enclosure with lion motive.
- The size of the pillars on the periphery of the oval-planned enclosure with snake motive (A) is similar to enclosure with fox motive (B), wild boar motive (C) and animal scenery motive (D) in the same layer. However, the periphery and central pillars of the circular planned enclosure with dog motive (F) and leopard motive (H) in layer III are smaller. The dimension of pillars in same layer are not similar to each other.
- Three enclosures (enclosure with wild boar motive (C), enclosure with animal scenery motive (D) and enclosure E) have bases. There is animal (duck) shaped

motive on the base of the eastern central pillar of enclosure with animal scenery motive (D).

- Animal shaped motives are more common than geometric shaped motive on pillars. Only the enclosure with leopard motive (H) and enclosure with dog motive (F) have animal shaped, geometric shaped and both motives combined.
- The common location for motives on pillar is the body. The motives on the pillar head are less common. The enclosures with motives on pillar body and head are enclosure with wild boar motive, enclosure with leopard motive and enclosure with lion motive.
- According to the comparison made with the enclosure area and the number of pillars, enclosure with wild boar motive (C) being largest in area has the most number of pillars. However, there is a difference in the number of pillars of enclosures with similar areas in other buildings. The number of pillars of enclosure with fox motive (B) and animal scenery motive (D), which have a medium-sized area, is 11 and 13, respectively. The enclosure with lion motive, dog motive (F) and enclosure E, which are small in area, contain 6, 8 and two pillars, respectively. In this case, it is possible to say that the number of pillars in the enclosures is not directly proportional to the enclosure area.
- The area of the enclosure with wild boar motive (C) is large, it is of similar dimensions to the central and peripheral pillars of enclosure with fox motive (B) and with animal scenery motive (D). Enclosure with snake motive (A) has pillars in different sizes than enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D). Enclosure with dog motive (F) and leopard motive (H) belonging to layer III have smaller pillars compared to the other layer III structures (enclosure with fox motive (B), with wild boar motive (C) and with animal scenery motive (D)). The size of the pillars belonging to enclosure with lion motive and enclosure G in layer II are similar to the pillars of enclosure with dog motive (F) and with leopard motive (H) in layer III. In this case, it can be stated that the dimensions of the pillars in the enclosures are not similar to the other enclosure in the same layer. The dimensions of the pillar are not directly proportional to the area of enclosure.
- The central pillars are larger in size and taller than the pillars in the periphery in enclosure with fox motive (B), with wild boar motive (C) and with animal scenery

motive (D) in layer III. There is no difference between the sizes of the central pillars and peripheral pillars in the other enclosures in layer III and in enclosure with lion motive in layer II. So, it is stated as the arrangement of the central pillars larger than the peripheral pillars is not a common construction system for all structures in the site. In the earliest built enclosures, the central pillars are larger than the pillars on the periphery. Since it was observed that this system was not applied in the later structures, it is valid that the construction system also evolved in the site.

- The enclosures with snake motive (A), with fox motive (B), with wild boar motive (C) and with animal scenery motive (D) in layer III are surrounded by more than one row of walls. Enclosure with wild boar motive (C) with the largest area is surrounded by 4 wall rows. Medium-sized buildings dated to layer III were surrounded by double walls, while the remaining buildings were surrounded by a single wall row. In this case, the number of walls limiting the enclosure area does not differentiate between layers.
- Dimension of central pillars are the biggest in enclosure with animal scenery, the distance between central pillars is the longest. The area of enclosure with animal scenery motive (D) is the biggest. Yet the dimensions of pillars belonging to enclosure with fox motive (B) and enclosure with wild boar motive (C) are similar, the distances are quite different from each other. So, the construction of pillars in each enclosure is different in each example.
- The ratio of area to central pillar height is 0.32 in enclosure with fox motive (B), 0.77 in enclosure with wild boar motive (C), 0.36 in enclosure with animal scenery motive (D), 0.68 in enclosure with dog motive (F) and 0.34 in enclosure with lion motive. The ratio is close to each other in enclosure with fox motive (B), enclosure with animal scenery (D) and enclosure with lion motive. Two of enclosures are from layer III and one of them is from layer II. So, there might be a constant construction ratio between enclosures and also between layers.
- The ratio of diameter to central pillar height is 2.5 in enclosure with fox motive (B), 2.5 in enclosure with wild boar motive (C), 2.7 in enclosure with animal scenery motive (D), and 3,1 in enclosure with lion motive. The ratio is same in enclosure with fox motive (B), enclosure with wild boar motive (C) and the ratio in enclosure with animal scenery motive (D) is close to them. Enclosure with lion

motive from layer II is not close to other enclosure's ratio. So, it can be stated as a proportion between diagonal/diameter and central pillar height was provided. All 3 enclosures have different diameter, so central pillar height must be arranged differently to sustain this ratio.

- Angles between peripheral pillar are analyzed to understand the range of these angles and the repeating angles. These angles vary in between  $14^\circ$  and  $103^\circ$  in general. In layer III, angles between peripheral pillars are in between  $14^\circ$  and  $61^\circ$ , only in one spot angle is  $103^\circ$ . This spot is where ornamented holed stone is located through north direction in enclosure with animal scenery motive (D) (See 1.4.4). In layer II, the angles are in between  $46^\circ$  and  $72^\circ$ . The  $21^\circ$  angle is seen in twice; the  $23^\circ$  angle is seen third time in all enclosures. The peripheral pillars are organized around central point with acute angles in all enclosures and layers, except one example in enclosure with animal scenery motive (D). This one exceptional example might be designed on purpose to highlight the ornamented elements. So it can be stated as; in enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with dog motive (F) and enclosure with lion motive, the highlighted elements are central pillars but the highlighted elements are central pillars and ornamented holed stone in enclosure with animal scenery motive (D).
- Distances between peripheral pillars inside the peripheral wall were analyzed to understand the range of these distances and the repeating distances. The repeating distance was observed in enclosure with animal scenery motive (D), the distance was 307 cm.
- Majority of the peripheral pillars are perpendicular to walls, only 6 pillars of enclosure with snake motive (A) and 1 pillar of enclosure with fox motive (B) are parallel to the walls. Six of 7 pillars belonging to enclosure with snake motive (A) are perpendicular and enclosure dated back to transition phase between layer III and layer II. So it is assumed that this constructing pillars parallel to walls as a construction technique is implemented in only one enclosure of the unearthing enclosures. Either this technique is not found efficient or easy to build so it is not preferred in next layer.
- Ratio of area to pillar base area is analyzed to examine is there a common principle to define the pillar base dimensions. This ratio is analyzed in enclosures having

pillar base as enclosure with wild boar motive (C), enclosure with animal scenery motive (D), enclosure with dog motive (F), and enclosure E. Ratio of area to pillar base is 18.77 in enclosure with fox motive (B), 39.81 in enclosure with animal scenery motive (D), 23.80 in enclosure with dog motive (F) and 9.6 in enclosure E. The ratio is not same or close in any enclosure. So there is not any common principle defining pillar base dimensions between enclosures.

After all these analysis, a ratio between diameter and central pillar height is found close in three enclosures (Enclosure with fox motive (B), enclosure with wild bear motive(C), enclosure with animal scenery(D)). The ratio is 2.5 and 2.7. All 3 enclosures have different diameter, so central pillar height must be arranged differently to sustain this ratio. Other than this result, there is no common features between enclosures. It can be stated as there is a knowledge of geometry as mentioned in Haklay and Gopher's research (Haklay and Gopher 2020). It is stated as three enclosures (Enclosure B, C and D) in Göbekli Tepe are planned as vertex of equilateral triangle (Haklay and Gopher 2020). So there is a planning process while constructing the enclosures, it is consistent with the result as having a common ratio in these three enclosures.

## CHAPTER 3

### CONSERVATION PROBLEMS OF GÖBEKLİ TEPE

When the decisions and interventions for the protection of Göbekli Tepe are examined, the following points can be determined (Leo, Merbach, and Pant 2017).

- Buffer zone was defined as 3<sup>rd</sup> degree archeological site in 2017.
- Protective structure construction was completed in 2017.
- Visitor center was constructed in 2018.

There are projects and plans mentioned on the management plan that have not been prepared yet. These are:

- Conservation plan
- Landscape design project
- Risk management plan
- Visitor management plan

Conservation problems of enclosures, which are enclosure with snake motive (A), enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery (D), enclosure E, enclosure with dog motive (F), enclosure with leopard motive (H) in layer III and enclosure G, enclosure with lion motive (L) in layer II in Göbekli Tepe were analyzed under the heading of

- state of preservation
- preservation condition
- risk class

determined in the standard titled as EN 17656 Cultural Heritage - Assessment and Monitoring of Archaeological Deposits for Preservation in Situ (See 1.3).

The examination was based on structural problems observed in field survey. These problems were material loss, disintegration, material deterioration in walls, deformation, fracture, crack in pillars, disintegration in objects.

State of preservation represents the preservation status of cultural asset, preservation condition defines the implementations and precautions related with conservation. Risk class were determined depending on state of preservation and preservation condition. Data considering state of preservation and preservation condition was collected in field survey.

### **3.1. Conservation Problems of Enclosure with Motives**

Conservation problems in enclosure with snake motive (A), enclosure with fox motive (B), enclosure with wild boar motive (C), enclosure with animal scenery (D), enclosure with dog motive (F), enclosure with leopard motive (H) in layer III and, enclosure with lion motive (L) in layer II are analyzed under the heading of walls, pillars, floor and objects in terms of state of conservation, preservation condition and risk class separately for each enclosure.

#### **3.1.1. Conservation Problems of Enclosure Snake Motive (Enclosure A)**

In enclosure with snake motive (Enclosure A), the risk class was defined for walls, pillars, floor and object.

**Walls:** In enclosure with snake motive (A), there was structural disintegration of the circular wall surrounding the oval plan. There was material loss in the stone and binding material forming the upper parts of the northern walls of the enclosure (Figure 3.3). The state of preservation was defined as poor, since there was material loss and structural damage in the wall. The protective cover of the enclosure (Figure 3.1); did not protect the remains against weather conditions from the open sides (Figure 3.2). For this reason, the preservation conditions were defined as poor.

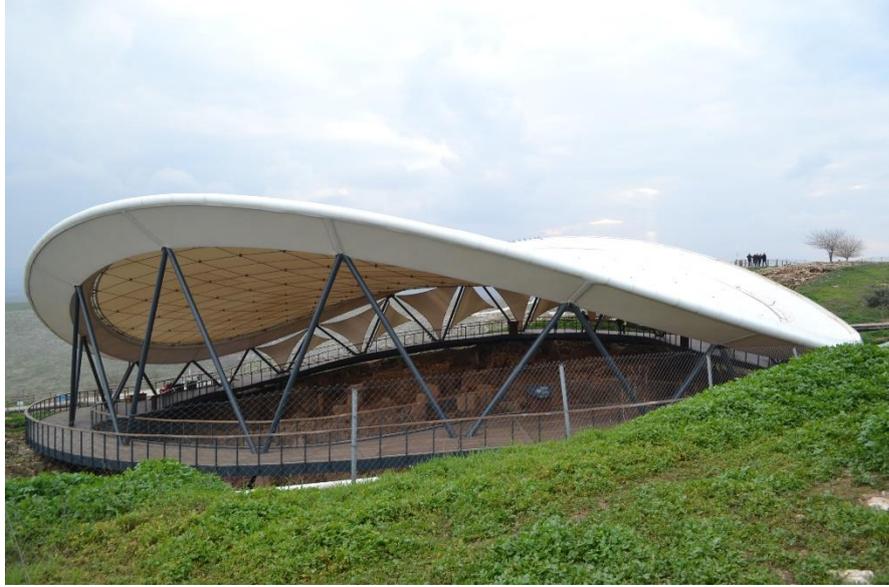


Figure 3.1. Protective cover of enclosures (Enclosure A, B, C, D, L)  
(Photo: K. Çelik, 2019)



Figure 3.2. Enclosure with snake motive (A) and enclosure with fox motive (B) under  
the snow  
(Photo: M. Çelik, 2022)

Since the state of preservation of the walls of the enclosure with snake motive (A) was poor, and the preservation conditions were poor, the risk class of the walls was the high risk of loss of significant heritage material (Table 3.1).



Figure 3.3. Walls of enclosure with snake motive (A)  
(Photograph: K. Çelik, 2022)

**Pillars:** The stability of the peripheral pillar on the northwest circular wall of the enclosure had deteriorated. Temporary wooden supports were used to ensure the lateral stability of the pillar and prevent it from tilting over. There was no structural damage or material deterioration observed in the other 6 peripheral pillars that were unearthed. Since only one of the pillars of the enclosure had structural damage, the pillars belonging to enclosure were defined as good state of preservation. Since the pillar was supported by wooden buttresses, the preservation condition was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material because the state of preservation of the pillars was determined as poor and the protection conditions class as poor (Table 3.1).

**Floor:** Since there was soil and stone filling on the floor of the enclosure, the floor was not fully perceived. For this reason, the state of preservation was defined as good. The preservation condition was defined as good, since the filling on the floor protects the floor from external factors. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.1).

**Object:** The upper part of the U-shaped stone in the pavement had not reached present, a part of this stone was observed in the floor. Since there was partial material loss in this element, the state of preservation was poor and since the undamaged part of stone was in the filling, the preservation condition was good. The risk class was determined as medium risk of loss of significant cultural heritage material (Table 3.1).

Table 3.1. State of preservation class, preservation condition class and risk class of Enclosure with snake motive (A)

Enclosure with snake motive (A)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 2	RC C
Pillars	SP 3	PC 2	RC B
Floor	SP 3	PC 3	RC A
Object	SP 2	PC 3	RC B

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor Preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

### 3.1.2. Conservation Problems of Enclosure with Fox Motive (Enclosure B)

In enclosure with fox motive (Enclosure B), the risk class was defined for walls, pillars, floor and object.

**Walls:** In enclosure with fox motive (B), there was structural disintegration of the wall. There was material loss in height ranging from 5 to 10 cm in the stone and binding material forming the upper parts of the northern walls of the enclosure (Figure 3.4). The state of preservation was defined as poor, since there was material loss and structural damage in the wall.



Figure 3.4. Walls and pillars of enclosure with fox motive (B) (Photograph: K. Çelik, 2022)

The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides (Figure 3.1). For this reason, the preservation conditions were defined as poor.

Since the state of preservation of the walls of the enclosure with fox motive (B) was poor, and the preservation conditions were poor, the risk class of the walls was the high risk of loss of significant heritage material (Table 3.2).

**Pillars:** The stability of the east central pillar had deteriorated. Temporary wooden supports were used to ensure the lateral stability of the pillar and prevent it from tilting over. There was no structural damage or material deterioration observed in the other 10 pillars that were unearthed. Since only one of the pillars of the enclosure had structural damage, the pillars belonging to enclosure were defined as good state of preservation. Since the pillar was supported by temporary wooden buttresses, the preservation condition was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material because the state of preservation of the pillars was determined as poor and the protection conditions class as poor (Table 3.2).

**Floor:** Since there was soil and stone filling on the floor of the enclosure, the floor was not fully perceived. There was no problem observed. For this reason, the state of preservation was defined as good. The preservation condition was defined as good, since the filling on the floor protects the floor from external factors. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.2).

Table 3.2. State of preservation class, preservation condition class and risk class of Enclosure with fox motive (Enclosure B)

Enclosure with fox motive (B)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 2	RC C
Pillars	SP 3	PC 2	RC B
Floor	SP 3	PC 3	RC A
Object	SP 1	PC 1	RC D

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

**Object:** There was disintegration in offering vessel located in the enclosure floor. Since there was disintegration in this element, the state of preservation was very poor. There was no conservation precaution about it, the preservation condition was very poor. The risk class was determined as immediate risk of loss of significant cultural heritage material (Table 3.2).

### **3.1.3. Conservation Problems of Enclosure with Wild Boar Motive (Enclosure C)**

In enclosure with wild boar motive (Enclosure C), the risk class was defined for walls, pillars, floor and object.

**Walls:** In enclosure with wild boar motive (C), there was structural disintegration of the wall. There was material loss in height ranging from 5 to 40 cm in the stone and binding material forming the upper parts of the northern walls of the enclosure (Figure 3.5). There was biological colonization in eastern wall. The state of preservation was defined as very poor, since there was material loss and deterioration in the wall.

The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides (Figure 3.1). For this reason, the preservation condition was defined as poor.



Figure 3.5. Enclosure with wild boar motive (C)  
(Photograph: K. Çelik, 2022)

Since the state of preservation of the walls of the enclosure with wild boar motive (C) was very poor, and the preservation condition was poor, the risk class of the walls was the immediate risk of loss of significant heritage material (Table 3.3).

**Pillars:** The stability of the peripheral pillar on northern wall, behind east central pillar had deteriorated. Temporary wooden supports were used to ensure the lateral stability of the pillar and prevent it from tilting over. The head of central pillars and 5 of peripheral pillars had not reached present. Horizontal crack was observed in west central pillar. There was fracture in peripheral pillars on southern wall (Figure 3.6). The fracture was not observed in 2019. There was no structural damage or material deterioration observed in the other 14 pillars that were unearthed. Since three of the pillars of the enclosure had structural damage and seven of the pillars had material loss, the pillars belonging to enclosure were defined as good state of preservation. Since the pillar was supported by temporary wooden buttresses, the preservation condition was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material (Table 3.3).



Figure 3.6. Pillars of enclosure with wild boar motive (C)  
(Photograph: K. Çelik, 2022)

**Floor:** There was no problem observed on the floor. For this reason, the state of preservation was defined as perfect. There is no need for conservation precaution. Since the floor did not need conservation precaution, the preservation condition was defined as

good. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.3).

**Object:** The eastern part of the U-shaped stone in the entrance passage of enclosure had not reached present, the western part of this stone was observed (Figure 3.7). There was horizontal crack and deformation in the stone. Since there was partial material loss and structural damage in this element, the state of preservation was very poor. The crack on the element was not observed in 2019. The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides. That is why, the preservation condition was defined as poor. The risk class was determined as immediate risk of loss of significant cultural heritage material (Table 3.3).



Figure 3.7. U-shaped stone of enclosure with wild boar motive (C) in 2019 and in 2022 (Photograph: K. Çelik, 2019/2022)

Table 3.3. State of preservation class, preservation condition class and risk class of enclosure with wild boar motive (C)

Enclosure with fox motive (B)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 1	PC 2	RC D
Pillars	SP 3	PC 2	RC B
Floor	SP 4	PC 3	RC A
Object	SP 1	PC 2	RC D

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor Preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

### 3.1.4. Conservation Problems of Enclosure with Animal Scenery

#### Motive (Enclosure D)

In enclosure with animal scenery motive (Enclosure D), the risk class was defined for in walls, pillars and floor.

**Walls:** In enclosure with animal scenery motive (D), there was structural disintegration of the wall. There was material loss in height ranging from 20 to 40 cm in the stone and binding material forming the upper parts of the walls (Figure 3.8). The state of preservation was defined as poor, since there was material loss in the wall.

The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides (Figure 3.1). For this reason, the preservation condition was defined as poor like enclosure with snake motive (A), enclosure with fox motive (B) and enclosure with wild boar motive (C).

Since the state of preservation of the walls of the enclosure with animal scenery motive (D) was poor, and the preservation conditions were poor, the risk class of the walls was the high risk of loss of significant heritage material (Table 3.4).



Figure 3.8. Walls of enclosure with animal scenery motive (D)  
(Photograph: K. Çelik, 2022)

**Pillars:** The stability of the central pillars had deteriorated. Temporary wooden supports were used to ensure the lateral stability of the pillar and prevent it from tilting over (Figure 3.9). There was no structural damage or material deterioration observed in

the other 11 pillars unearthed. Since two of the pillars of the enclosure had structural damage, the pillars belonging to enclosure were defined as good state of preservation. Since the pillar was supported by temporary wooden buttresses, the preservation conditions was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material (Table 3.4).

**Floor:** There is no problem observed on the floor. For this reason, the state of preservation was defined as perfect. There is no need for conservation precaution. Since the floor did not need conservation precaution, the preservation conditions was defined as good. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.4).



Figure 3.9. Central pillars of enclosure with animal scenery motive (D)  
(Photograph: K. Çelik, 2022)

Table 3.4. State of preservation class, preservation condition and risk class of enclosure with animal scenery motive (D)

Enclosure with animal scenery motive (D)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 2	RC C
Pillars	SP 4	PC 2	RC B
Floor	SP 4	PC 3	RC A

SP 4 Excellent state of preservation  
SP 3 Good state of preservation  
SP 2 Poor state of preservation  
SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
PC 3 Good preservation condition  
PC 2 Poor preservation condition  
PC 1 Very poor preservation condition

RC A Low risk of loss of material  
RC B Medium risk of loss of material  
RC C High risk of loss of material  
RC D Immediate risk of loss of material

### 3.1.5. Conservation Problems of Enclosure with Dog Motive (Enclosure F)

In enclosure with dog motive (F), the risk class was defined for walls, pillars and floor.

**Walls:** In enclosure with dog motive (F), though the ground level was unearthed, the outer part of the circular walls was buried in the earth. Structural disintegration on the upper levels of the wall was observed. Cracks in stone material on upper levels of the benches engaged with wall was observed (Figure 3.10).

The state of preservation was defined as poor, since there was material loss on wall and crack in the bench. Preservation condition was defined as very poor since there was no conservation precaution about the walls.

The state of preservation of the walls of the enclosure with dog motive (F) was poor, and the preservation conditions were very poor, the risk class of the walls was the immediate risk of loss of significant heritage material (Table 3.5).



Figure 3.10. Walls and pillars of enclosure with dog motive (F)  
(Photograph: K. Çelik, 2022)

**Pillars:** The head part of the pillars belonging to enclosure with dog motive (F) have not reached present. Temporary wooden frames were used on the central pillars (Figure 3.9). The pillars belonging to enclosure were defined as poor state of preservation,

because of the material loss observed. The preservation condition was defined as very poor, since there was no conservation implementation protecting all pillars. The risk class was determined as immediate risk of loss of significant cultural heritage material (Table 3.5).

**Floor:** There is no problem observed on the floor. For this reason, the state of preservation was defined as perfect. Due to being open to effect of harmful weather, the preservation condition was defined as very poor. Accordingly, the risk class was determined as high risk of loss of significant cultural heritage material (Table 3.5).

Table 3.5. State of preservation class, preservation condition and risk class of enclosure with dog motive (F)

Enclosure with dog scenery motive (F)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 1	RC D
Pillars	SP 2	PC 1	RC D
Floor	SP 4	PC 1	RC C

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

### 3.1.6. Conservation Problems of Enclosure with Leopard Motive (Enclosure H)

In enclosure with leopard motive (Enclosure H), the risk class was defined for walls, pillars and floor. The enclosure was located different excavation area than the others (See 2.1.6).

**Walls:** In enclosure with leopard motive (H), there was structural disintegration of the wall. There was material loss in height ranging from 5 to 20 cm in the stone and binding material forming the upper parts of the walls (Figure 3.11). The state of preservation was defined as poor, since there was material loss in the wall.

The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides (Figure 3.12). For this reason, the preservation conditions were defined as poor.

Since the state of preservation of the walls of the enclosure with leopard motive (H) was poor, and the preservation conditions were poor, the risk class of the walls was the high risk of loss of significant heritage material (Table 3.6).



Figure 3.11. Enclosure with leopard motive (H)  
(Source: Dietrich et al. 2016)

**Pillars:** The head part of central pillar of enclosure with leopard motive (H) has damaged. The head part of two peripheral pillars on the west wall have not reached present. Temporary wooden supports were used to ensure the lateral stability of the pillars on south wall and prevent it from tilting over (Figure 3.11). There was no structural damage or material deterioration observed in the other 4 pillars unearthed. Since 4 of the pillars of the enclosure had structural damage and material loss, the pillars belonging to enclosure were defined as poor state of preservation. Since the pillar was supported by temporary wooden buttresses, the preservation condition was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material (Table 3.6).



Figure 3.12. Protective cover of enclosure with leopard motive (H)  
(Photograph: K. Çelik, 2022)

**Floor:** Since there was soil and stone filling on the floor of the enclosure, the floor was not fully perceived. For this reason, the state of preservation was defined as good. The preservation condition was defined as good, since the filling on the floor protects the floor from external factors. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.6).

Table 3.6. State of preservation class, preservation condition and risk class of enclosure with leopard motive (H)

Enclosure with leopard scenery motive (H)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 2	RC C
Pillars	SP 2	PC 2	RC B
Floor	SP 3	PC 3	RC A

SP 4 Excellent state of preservation  
SP 3 Good state of preservation  
SP 2 Poor state of preservation  
SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
PC 3 Good preservation condition  
PC 2 Poor preservation condition  
PC 1 Very poor preservation condition

RC A Low risk of loss of material  
RC B Medium risk of loss of material  
RC C High risk of loss of material  
RC D Immediate risk of loss of material

### 3.1.7. Conservation Problems of Enclosure with Lion Motive (Enclosure L)

In enclosure with lion motive (L), the risk class was defined for walls, pillars and floor.

**Walls:** In enclosure with lion motive (L), there was structural disintegration of the wall. There was material loss in height ranging from 20 to 100 cm in the stone and binding material forming the upper parts of the walls (Figure 3.13). The state of preservation was defined as poor, since there was material loss in the wall.

The protective cover of the enclosure; did not protect the remains against weather conditions from the open sides (Figure 3.13). For this reason, the preservation conditions were defined as poor.

Since the state of preservation of the walls of the enclosure with lion motive (L) was poor, and the preservation conditions were poor, the risk class of the walls was the high risk of loss of significant heritage material (Table 3.7).



Figure 3.13. Enclosure with lion motive (L)  
(Photograph: K. Çelik, 2022)

**Pillars:** Deformation was observed in the northwest central pillar of enclosure with lion motive (L). Pillar was not located in original position. Breaking was observed in the southwest pillar (Figure 3.13). There was no structural damage or material

deterioration observed in the other 4 pillars unearthed. Since two of the pillars of the enclosure had structural damage, the pillars belonging to enclosure were defined as good state of preservation. There was no conservation precaution about the pillars, the preservation condition was defined as poor. The risk class was determined as medium risk of loss of significant cultural heritage material (Table 3.7).

**Floor:** Since there was soil and stone filling on the floor of the enclosure, the floor was not fully perceived (Figure 3.13). For this reason, the state of preservation was defined as good. The preservation condition was defined as good, since the filling on the floor protects the floor from external factors. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.7).

Table 3.7. State of preservation class, preservation condition and risk class of enclosure with lion motive (L)

Enclosure with leopard scenery motive (H)	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 2	RC C
Pillars	SP 3	PC 2	RC B
Floor	SP 4	PC 3	RC A

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

### 3.2. Conservation Problems of Enclosure without Motives

Conservation problems in enclosure E in layer III and enclosure G in layer II are analyzed under the heading of walls, pillars, floor and objects in terms of state of conservation, preservation condition, risk class separately for each enclosure.

#### 3.2.1. Conservation Problems of Enclosure E

In enclosure E, there are problems in pillars.

**Pillars:** Only pillar bases belonging to enclosure E have reached present. Material loss was observed in the east base. State of preservation was defined as good, because of only material loss observed (Figure 3.14). There was no conservation precaution, the

preservation condition was defined as very poor. Risk class of pillars belonging to enclosure E was defined as high risk of loss of significant material (Table 3.8).



Figure 3.14. Enclosure E  
(Photograph: K. Çelik, 2022)

**Floors:** There is no problem observed on the floor (Figure 3.14). For this reason, the state of preservation was defined as perfect. Due to being open to effect of harmful weather, the preservation condition was defined as very poor. Accordingly, the risk class was determined as high risk of loss of significant cultural heritage material (Table 3.8).

Table 3.8. State of preservation class, preservation condition and risk class of enclosure E

Enclosure E	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Pillars	SP 3	PC 1	RC C
Floor	SP 4	PC 1	RC C

SP 4 Excellent state of preservation  
SP 3 Good state of preservation  
SP 2 Poor state of preservation  
SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
PC 3 Good preservation condition  
PC 2 Poor preservation condition  
PC 1 Very poor preservation condition

RC A Low risk of loss of material  
RC B Medium risk of loss of material  
RC C High risk of loss of material  
RC D Immediate risk of loss of material

### 3.2.2. Conservation Problems of Enclosure G

In enclosure G, the risk class was defined for walls, pillars and floor.

**Walls:** In enclosure G there was structural disintegration of the wall. There was material loss about 10 cm in the stone and binding material forming the upper parts of the walls (Figure 3.15). The state of preservation was defined as poor, since there was material loss in the wall.



Figure 3.15. Enclosure G  
(Photograph: K. Çelik, 2022)

There was no protective cover or conservation precautions for the walls of enclosure G. So, the preservation condition was defined as very poor.

The state of preservation of the walls of the enclosure G was poor, and the preservation condition was very poor, the risk class of the walls was the immediate risk of loss of significant heritage material (Table 3.9).

**Pillars:** The head parts of enclosure G have not reached present. The state of preservation was defined as good, because of observing only partial material loss (Figure 3.15). The preservation condition was defined as very poor because of not observing any conservation precautions. The risk class of the pillars was the high risk of loss of significant heritage material (Table 3.9).

**Floor:** Since there was soil and stone filling on the floor of the enclosure, the floor was not fully perceived (Figure 3.15). For this reason, the state of preservation was

defined as good. The preservation condition was defined as good, since the filling on the floor protects the floor from external factors. Accordingly, the risk class was determined as low risk of loss of significant cultural heritage material (Table 3.9).

Table 3.9. State of preservation class, preservation condition and risk class of enclosure G

Enclosure G	State of preservation of assets class (SP)	Preservation condition class (PC)	Risk class (RC)
Walls	SP 2	PC 1	RC D
Pillars	SP 3	PC 1	RC C
Floor	SP 3	PC 3	RC A

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

### 3.3. Evaluation of Conservation Problems of Enclosures

The risk classes varied in line with the state of preservation and preservation condition of the structural elements belonging enclosures. These variations were shown together for the structural elements of each enclosure (Table 3.10).

- In enclosure with snake motive (A), walls had high, pillars and objects had medium, floor had low risk of loss of significant heritage material.
- In enclosure with fox motive (B), offering vessel as objects had immediate, walls and pillars had high, floor had low risk of loss of significant heritage material.
- In enclosure with wild boar motive (C), walls and U-shaped stone as object had immediate, pillars and floor had low risk of loss of significant heritage material.
- In enclosure with animal scenery motive (D), walls had high, pillars had medium and the floor had low risk of loss of significant heritage material.
- In enclosure with dog motive (F), walls and pillars had immediate, floor had high risk of loss of significant heritage material.

Table 3.10. State of preservation class, preservation condition and risk class of all enclosures

ENCLOSURES	WALL	PILLARS	FLOOR	OBJECT
Enclosure with snake motive (A)	SP 2 PC 2 RC C	SP 3 PC 2 RC B	SP 3 PC 3 RC A	SP 2 PC 3 RC B
Enclosure with fox motive (B)	SP 2 PC 2 RC C	SP 3 PC 2 RC B	SP 3 PC 3 RC A	SP 1 PC 1 RC D
Enclosure with wild boar motive (C)	SP 1 PC 2 RC D	SP 3 PC 2 RC B	SP 4 PC 3 RC A	SP 1 PC 2 RC D
Enclosure with animal scenery motive (D)	SP 2 SP 2 RC C	SP 3 PC 2 RC B	SP 3 PC 3 RC A	
Enclosure with dog motive (F)	SP 2 PC 1 RC D	SP 2 PC 1 RC D	SP 4 PC 3 RC C	
Enclosure with leopard motive (H)	SP 2 PC 2 RC C	SP 2 PC 3 RC B	SP 3 PC 3 RC A	
Enclosure with lion motive (L)	SP 3 PC 2 RC C	SP 4 PC 2 RC B	SP 4 PC 3 RC A	

cont.on the next page

Table 3.10 (cont.). State of preservation class, preservation condition and risk class of all enclosures

Enclosure E		SP 3 PC 1 RC C	SP 4 PC 1 RC C	
Enclosure G	SP 2 PC 1 RC D	SP 2 PC 2 RC C	SP 3 PC 3 RC A	

SP 4 Excellent state of preservation  
 SP 3 Good state of preservation  
 SP 2 Poor state of preservation  
 SP 1 Very poor state of preservation

PC 4 Excellent preservation condition  
 PC 3 Good preservation condition  
 PC 2 Poor preservation condition  
 PC 1 Very poor preservation condition

RC A Low risk of loss of material  
 RC B Medium risk of loss of material  
 RC C High risk of loss of material  
 RC D Immediate risk of loss of material

- In enclosure with leopard material (H), walls had high, pillars had medium, floor had low risk of loss of significant heritage material.
- In enclosure with lion motive (L), walls had high, pillars and floor had medium risk of loss of significant heritage material.
- In enclosure E, pillars and floor had medium risk of loss of significant heritage material.
- In enclosure G, walls had high, pillars had medium, floor had low risk of loss of significant heritage material.

**Structural elements having immediate risk of loss of significant heritage material:**

- Walls of enclosure with wild boar motive (C),
- Walls of enclosure with dog motive (F),
- Walls of enclosure G
- Pillars of enclosure with dog motive (F)
- Offering vessel as objects of enclosure with fox motive (B)
- U-shaped stone as objects of enclosure with wild boar motive (C)

**Structural elements having high risk of loss of significant heritage material:**

- Walls of enclosure with snake motive (A)

- Walls of enclosure with fox motive (B)
- Walls of enclosure with animal scenery motive (D)
- Walls of enclosure with leopard motive (H)
- Walls of enclosure with lion motive (L)
- Pillars of enclosure E
- Pillars of enclosure G
- Floor of enclosure with dog motive (F)
- Floor of enclosure E

**Structural elements having medium risk of loss of significant heritage material:**

- Pillars of enclosure with snake motive (A)
- Pillars of enclosure with fox motive (B)
- Pillars of enclosure with wild boar motive (C)
- Pillars of enclosure with animal scenery motive (D)
- Pillars of enclosure with leopard motive (H)
- Pillars of enclosure with lion motive (L)
- U-shaped stone as objects of enclosure with snake motive (A)
- Floor of enclosure with lion motive (L)

**Structural elements having low risk of loss of significant heritage material:**

- Floor of enclosure with snake motive (A)
- Floor of enclosure with fox motive (B)
- Floor of enclosure with animal scenery motive (C)
- Floor of enclosure with leopard motive (H)
- Floor of enclosure G

Enclosure containing highest risk were enclosure with dog motive (F) and enclosure with wild boar motive (C). Remains belonging to these enclosures had highest risk with the elements in immediate or high risk of loss of significant heritage material. Enclosures with lowest risk were enclosures with animal scenery motive (D) and enclosure with leopard motive (H). enclosure with snake motive (A), enclosure with fox

motive (B), enclosure with lion motive (L), enclosure E and enclosure G were in medium risk of loss of significant heritage material.

## CHAPTER 4

# CONSERVATION APPROACHES OF A GROUP OF CIRCULAR PLANNED REMAINS FROM PREHISTORIC PERIOD

Architectural characteristics and conservation approaches of circular planned remains from prehistoric period in World Heritage List were analyzed to develop the conservation approaches for Göbekli Tepe.

Table 4.1. Circular Planned Remains from Prehistoric Period

SITE	DATE	PHOTOGRAPH
Göbekli Tepe, Şanlıurfa, Turkey	9600 BC	
Brú na Bóinne – Archaeological Ensemble of the Bend of the Boyne, Dublin, Ireland	8000-5500 BC	
Malta Megalithic Temples, Republic of Malta	4000- 3000 BC	
Stonehenge and Avebury Associated Areas, Salisbury Plain, Wiltshire, England	3700 BC	
Heart of Neolithic Orkney, Orkney Islands, Scotland	3000 BC	

The cases were selected from the Neolithic age, having similar construction technique and material use. The cases were listed according to the construction date. These cases are Brú na Bóinne – Archeological Ensemble of Bend of the Boyne, Malta Megalithic Temples, Stonehenge and Avebury Associated Areas, and Heart of Neolithic Orkney (Table 4).

#### 4.1. Conservation Approaches of Remains in Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne

Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne consist of the three main prehistoric sites as Brú na Bóinne Complex, Newgrange, Knowth and Dowth.

**General Description:** Brú na Bóinne are situated on the north bank of the River Boyne 50 km north of Dublin, Ireland. Bounded on the south by a bend in the River Boyne, the prehistoric site of Brú na Bóinne occurs as the three great burial mounds of Knowth, Newgrange and Dowth. Surrounded by about forty satellite passage graves, they constitute a funerary landscape recognized as having great ritual significance, subsequently attracting later monuments of the Iron Age, early Christian and medieval periods (UNESCO 2019a).

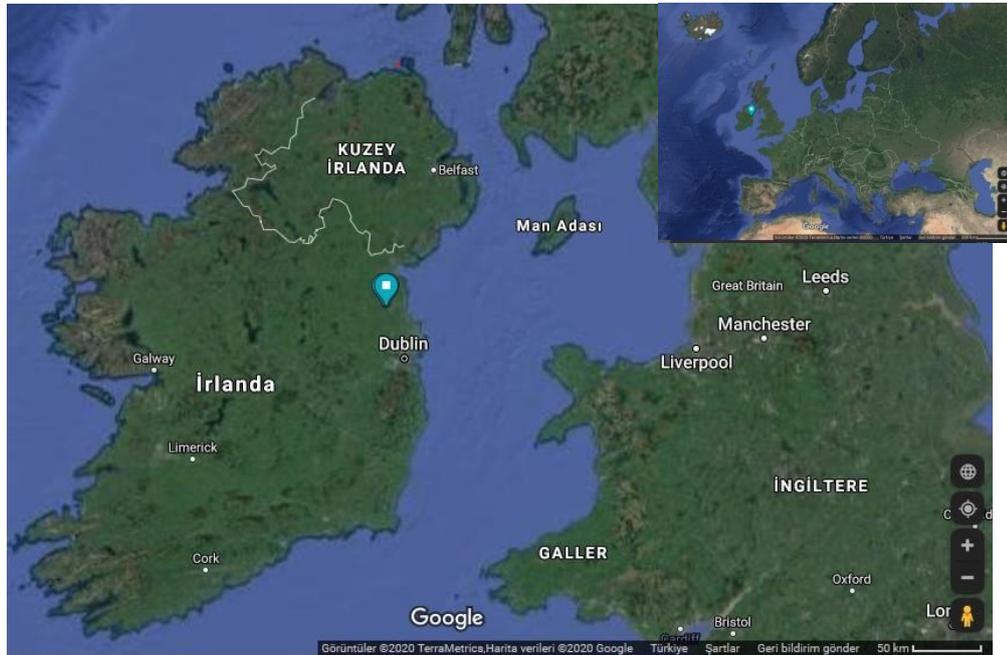


Figure 4.1. Location of Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne (Source: Revised from Google, 2020)

The site is located about 40 km north of Dublin on a ridge between the rivers Boyne and Mattock, within several kilometers of other prehistoric mounds and is part of an area of Ireland's past. The Knowth group, where the earliest features date from the Neolithic period and the latest from the Anglo-Norman period, has produced thirty monuments and sites that figure on the official inventory; these include passage graves adorned with petroglyphs, enclosures, occupation sites and field systems. The Newgrange group is purely prehistoric, with a ringfort, cursus, passage graves and a henge. The Dowth group is similar to Newgrange but there is medieval evidence in the form of a church and a castle. The components of the site were inscribed in 1993 in UNESCO World Heritage List. The site including burial mounds and tombs date back to 8000-5500 B.C (UNESCO 2019a).



Figure 4.2. Newgrange Prehistoric Site  
(Source: UNESCO, 2019a)

The concentration of social, economic and funerary monuments at this important ritual center and the long continuity from prehistory to the late medieval period make this one of the most significant archaeological sites in Europe.



Figure 4.3. Knowth Prehistoric Site  
(Source: UNESCO, 2019a)

The passage grave, was a feature of outstanding importance in prehistoric Europe and beyond. The 780 ha area of the World Heritage property Brú na Bóinne contains the attributes for which the property was inscribed on the World Heritage List. In addition to the large passage tombs of Knowth, Newgrange and Dowth, 90 recorded monuments remain scattered across the ridge above the Boyne River and over the low-lying areas and floodplain closer to the rivers (UNESCO 2019a).

**Conservation Proposals:** Management plan of Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne was prepared in 2002.

There are some structural damages on remains due to settlement and erosion. Conservation proposals include; integration of farming communities with the area since the area is associated with large agricultural areas, to ensure that legal regulations guarantee conservation, protection of other historical structures in the surrounding area, establishing a monitoring program, in this context monitoring of air pollution, deterioration and human impact, grassland management, condition survey of the remains regularly, integration and coordination with stakeholders regarding the presentation of the field, transportation to the site and inspection for visitors, thematic exhibitions, arranging transportation to other areas in the surrounding, research to complete the excavations and the importance of cooperation with all stakeholders (Department of Community Rural and Gaeltacht Affairs 2002).

## 4.2. Conservation Approach of Remains in Megalithic Temples of Malta

The megalithic temples in Malta are among the prehistoric ritual sites of the UNESCO World Heritage List. The two Ggantija temples on the island of Gozo are large-scale bronze-era structures. The Hagar Qim, Mnajdra and Tarxien temples on the island of Malta are among the few architectural works that provide information about the era in which they were built. Ta'Hagraat and Skorba complexes are seen as a source of temple building technology (UNESCO 2015).

**General Description:** Malta megalithic temples are located on the islands of Malta and Gozo. The two temples of Ggantija on the island of Gozo are notable for their gigantic Bronze Age structures. On the island of Malta, the temples of Hagar Qim, Mnajdra and Tarxien are unique architectural masterpieces. The Ta'Hagraat and Skorba complexes show the tradition of temple-building was handed down in Malta.

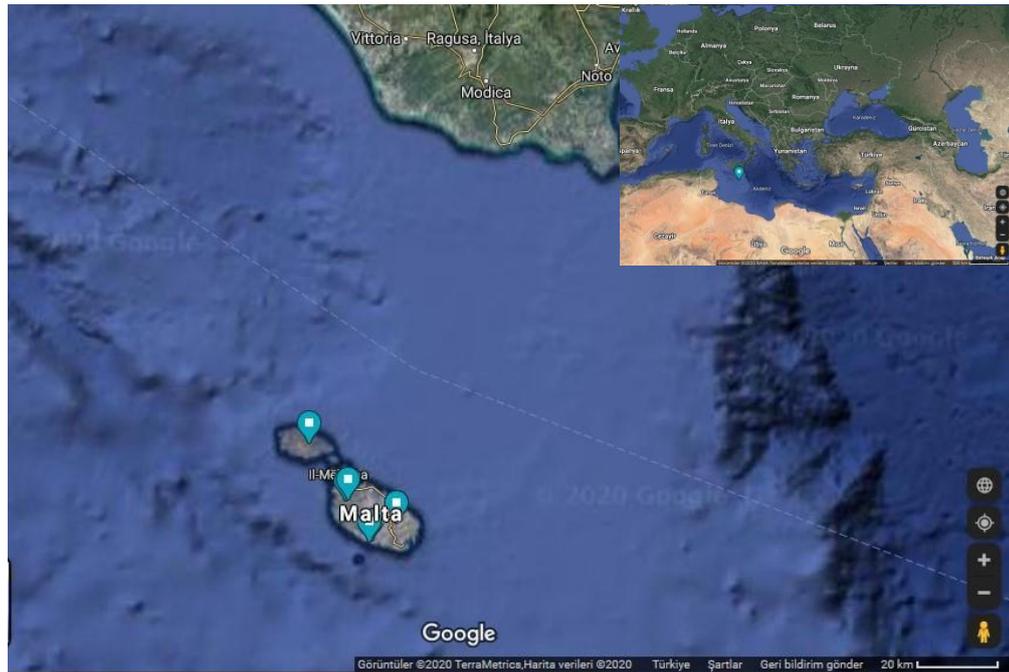


Figure 4.4. Location of Malta Megalithic Temples  
(Source: Revised from Google, 2020)

The Megalithic Temples of Malta (Ġgantija, Haġar Qim, Mnajdra, Skorba, Ta' Haġrat and Tarxien) are monumental buildings constructed during the 4th millennium BC and the 3rd millennium BC. They are amongst the earliest free-standing stone buildings

in the world and remarkable for their diversity of form. Each complex is a unique architectural masterpiece and a witness to an exceptional prehistoric culture renowned for its remarkable architectural, artistic and technological achievements (UNESCO 2015).



Figure 4.5. Hagar Qim remains  
(Photograph: K. Çelik, 2019)

The sites were excavated during the course of the 19th and 20th centuries, leaving them exposed to erosion by natural and human causes. Protective shelters are presently the most prudent and effective means available to slow down the deterioration processes that are eroding the monuments. Lightweight, removable protective covers have been implemented as an interim strategy to prolong the life of these buildings, while research continues to identify alternative long-term preservation strategies (UNESCO 2015).

The components of the property have a high level of authenticity. They consist of well-preserved remains of megalithic temples, with evidence of different phases of construction in antiquity. The components have been recorded in travel accounts since Early Modern times, while photographic records of some components go back to the early 1900s. Various restoration interventions have been carried out on five of the six components since their excavation. These included moving decorated blocks indoors to protect them from weathering, and capping the surviving blocks with cement. Current

conservation interventions are guided by international standards, guidelines and charters (UNESCO 2015).



Figure 4.6. Temples of Ggantija  
(Photograph: K. Çelik, 2019)

**Conservation proposals:** There is no management plan for Megalithic Temples of Malta. Absence of management plan is an obstacle for comprehensive conservation of remains. There are annual reports for heritages in Malta.

There are different conservation proposals developed for Ġgantija, Tarxien, Mnajdra, Haġar Qim, Skorba and Ta' Haġrat as Malta Megalithic Temples. For Ġgantija, the construction of traditional huts to animate the era and preparation of wide-ranging landscape project to provide space for thematic exhibitions, to increase the visitor numbers are proposed for presentation. For Mnajdra, Haġar Qim and Tarxien, establishing the monitoring environmental program with automatic identification system is proposed. For Haġar Qim, Mnajdra, Skorba and Ta' Haġrat, the determination of deteriorations or problems with conservation assessment is proposed (Heritage Malta 2020).

### 4.3. Conservation Approach of Remains in Stonehenge, Avebury and Associated Sites

Stonehenge and Avebury, in Wiltshire, in United Kingdom are among the best known groups of pillars in the world. The two sanctuaries consist of circles of menhirs arranged in a pattern. These places and the nearby Neolithic sites are an incomparable testimony to prehistoric times.

**General Description:** Stonehenge, Avebury and Associated Sites is internationally important for its complexes of outstanding prehistoric monuments. Stonehenge is the most architecturally sophisticated prehistoric stone circle in the world, while Avebury is the largest. Together with inter-related monuments, and their associated landscapes, they demonstrate Neolithic and Bronze Age ceremonial and mortuary practices resulting from around 2000 years of continuous use and monument building circa 3700 and 1600 BC. As such they represent a unique embodiment of our collective heritage (UNESCO 2019c).

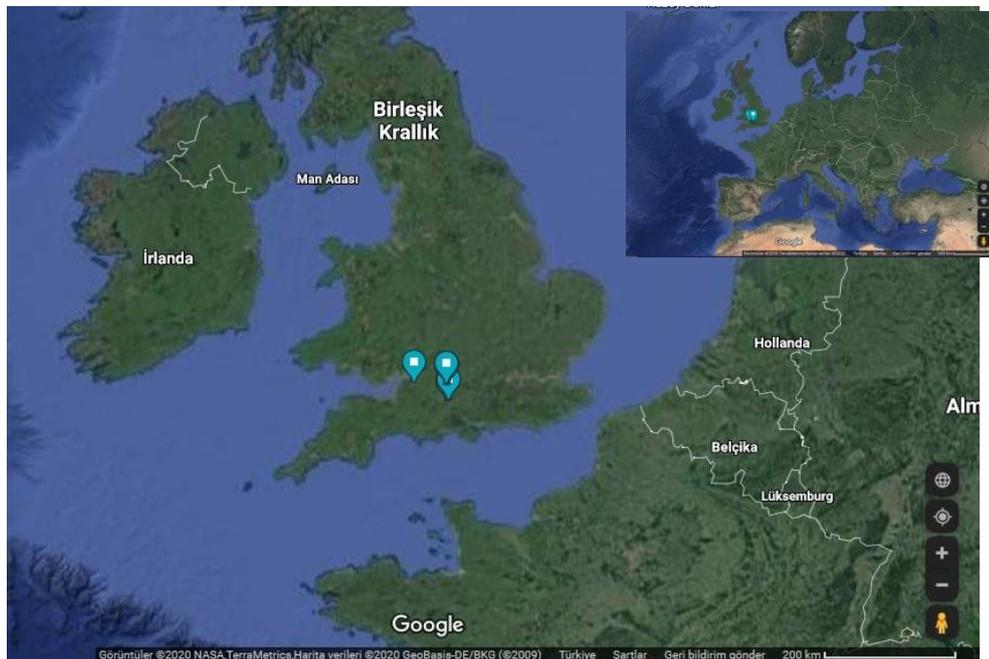


Figure 4.7. Location of Stonehenge, Avebury and Associated Sites  
(Source: Revised from Google, 2020)

The sites are comprised of two areas of chalkland in southern Britain within which complexes of Neolithic and Bronze Age ceremonial and funerary monuments and

associated sites were built. Each area contains a focal stone circle and henge and many other major monuments. At Stonehenge these include the Avenue, the Cursuses, Durrington Walls, Woodhenge, and the densest concentration of burial mounds in Britain. At Avebury they include Windmill Hill, the West Kennet Long Barrow, the Sanctuary, Silbury Hill, the West Kennet and Beckhampton Avenues, the West Kennet Palisaded Enclosures, and important barrows (UNESCO 2019c).



Figure 4.8. Stonehenge Prehistoric Site  
(Source: UNESCO, 2019c)

Stonehenge is one of the most significant prehistoric megalithic monuments in the world on account of the sheer size of its pillars, the sophistication of its concentric plan and architectural design, the shaping of the stones - uniquely using both Wiltshire Sarsen sandstone and Pembroke Bluestone. At Avebury, the massive henge, containing the largest prehistoric stone circle in the world, and Silbury Hill, the largest prehistoric mound in Europe, demonstrate the outstanding engineering skills which were used to create masterpieces of earthen and megalithic architecture. There is an exceptional survival of prehistoric monuments and sites including settlements, burial grounds, and large constructions of earth and stone. Today, together with their settings, they form landscapes without parallel. They provide an insight into the mortuary and ceremonial practices of the period, and are evidence of prehistoric technology, architecture and astronomy. The

careful siting of monuments in relation to the landscape helps us to further understand the Neolithic and Bronze Age (UNESCO 2019c).



Figure 4.9. Avebury Prehistoric Site  
(Source: UNESCO, 2019c)

Stonehenge is unrivalled in its design and unique engineering, featuring huge horizontal stone lintels capping the outer circle and the trilithons, locked together by carefully shaped joints. It is distinguished by the unique use of two different kinds of stones (bluestones and sarsens), their size (the largest weighing over 40 t) and the distance they were transported (up to 240 km). The sheer scale of some of the surrounding monuments is also remarkable. The Stonehenge Cursus and the Avenue are both about 3 km long, while Durrington Walls is the largest known henge in Britain, around 500 m in diameter, demonstrating the ability of prehistoric peoples to conceive, design and construct features of great size and complexity.

Avebury prehistoric stone circle is the largest in the world. The encircling henge consists of a huge bank and ditch 1.3 km in circumference, within which 180 local, unshaped standing stones formed the large outer and two smaller inner circles. Leading from two of its four entrances, the West Kennet and Beckhampton Avenues of parallel standing stones still connect it with other monuments in the landscape. Another outstanding monument, Silbury Hill, is the largest prehistoric mound in Europe. Built around 2400 BC, it stands 39.5 m high and is comprised of half a million tons of chalk. The purpose of this imposing, skillfully engineered monument remains obscure.

The megalithic and earthen monuments property demonstrates the shaping of the landscape through monument building for around 2000 years from circa 3700 BC, reflecting the importance and wide influence of both areas (UNESCO 2019c).

**Conservation proposals:** The management plan of Stonehenge, Avebury and associated sites was prepared in 2015 and consisted of four main parts as the management plan and the significance of the Stonehenge and Avebury world heritage site, key management issues and opportunities, aims and policies and implementing the plan. In key management issues and opportunities part conservation issues, policies and actions are defined. The main conservation issues are related with main two threats as cultivation and burrowing animals.

Management should include situations about animals surrounding, visitor management, damage by pedestrian and vehicle, agriculture, climate and integration with local community. One of the actions related with environment is changing the road routes in the site and landscape arrangements. Management appropriate with woodland and animals should be designed together with conservation of grassland. Sustainable management as Limits of Acceptable Change model including maintaining a sustainable level of visitor impacts in terms of monument condition, community amenity, visitor numbers and experience are defined. Providing an appropriate landscape, making archeological remains visible and conserved, balancing conservation and natural environment characteristics are proposed.

Conservation issues related with management includes enhancing the management arrangements and providing partnership with all individuals or organizations. Risk management identified according to climate change, managing the remains to develop the outstanding universal value and organize land management activities to provide efficient conservation is proposed.

Condition survey should be done on a regular basis and the monitoring is crucial for remains. Preparing Stonehenge Conservation Statement is in process, these actions will be defined on that statement. Since the site contains more than one group of remains, the links, access and circulation between other remains should be encouraged (Simmonds and Thomas 2015).

#### 4.4. Conservation Approach of Remains in Heart of Neolithic Orkney

Heart of Neolithic Orkney consists of a large chambered tomb (Maes Howe), two ceremonial stone circles (the Stones of Stenness and the Ring of Brodgar) and a settlement (Skara Brae), along with a number of unexcavated burial and settlement sites.

**General Description:** The Orkney Islands are located 15km north of Scotland. The monuments are in two areas, some 6.6 km apart on the island of Mainland, the largest in the archipelago. The group of monuments that make up the Heart of Neolithic Orkney consists of a highly preserved settlement, a large chambered tomb, and two stone circles with surrounding henges, together with a number of associated burial and ceremonial sites. The group constitutes a major relict cultural landscape graphically depicting life five thousand years ago in this remote archipelago (UNESCO 2019b).

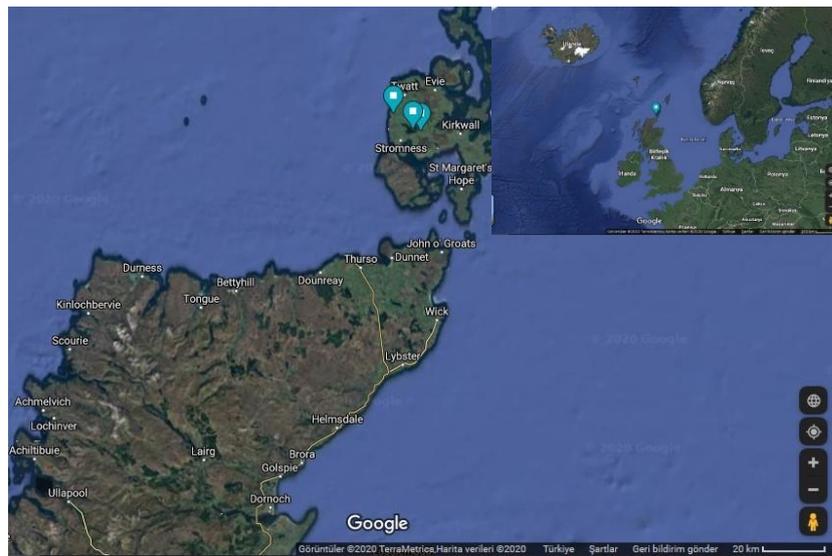


Figure 4.10. Location of Heart o Neolithic Orkney  
(Source: Revised from Google, 2020)

The four monuments of Heart of Neolithic as the Ring of Brodgar, Stones of Stenness, Maeshowe and Skara Brae are known with the farming culture prevalent from before 4000 BC in northwest Europe. The complex was inscribed in 1999 for UNESCO World Heritage List.

The major monuments of the Stones of Stenness, the Ring of Brodgar, the chambered tomb of Maeshowe, and the settlement of Skara Brae display the highest

sophistication in architectural accomplishment; they are technologically ingenious and monumental masterpieces.



Figure 4.11. The Ring of Brodgar  
(Source: UNESCO, 2019b)

The Heart of Neolithic Orkney exhibits an important interchange of human values during the development of the architecture of major ceremonial complexes in the British Isles, Ireland and northwest Europe. Through the combination of ceremonial, funerary and domestic sites, the Heart of Neolithic Orkney bears a unique testimony to a cultural tradition that flourished between about 3000 BC and 2000 BC. The state of preservation of Skara Brae is unparalleled amongst Neolithic settlement sites in northern Europe (UNESCO 2019b).

**Conservation proposals:** The management plan of Heart of Neolithic Orkney was prepared for 2014-2015. It contains six titles as preparation, requirements, management, deliveries, vision and objectives. There are 17 conservation issues, 6 long-term objectives and 6 medium-term objectives. The vision of plan is achieving sustainable economic, social and environmental benefits for locals and visitors alike.

Environment related issues are designing visitor experience with or without digital technologies, providing sustainable tourism, integration with local communities, climate change, balancing conservation and environmental priorities. Develop access plan,

transportation options, visitor experience and providing accessibility and link between all World Heritage Sites in country are proposed.

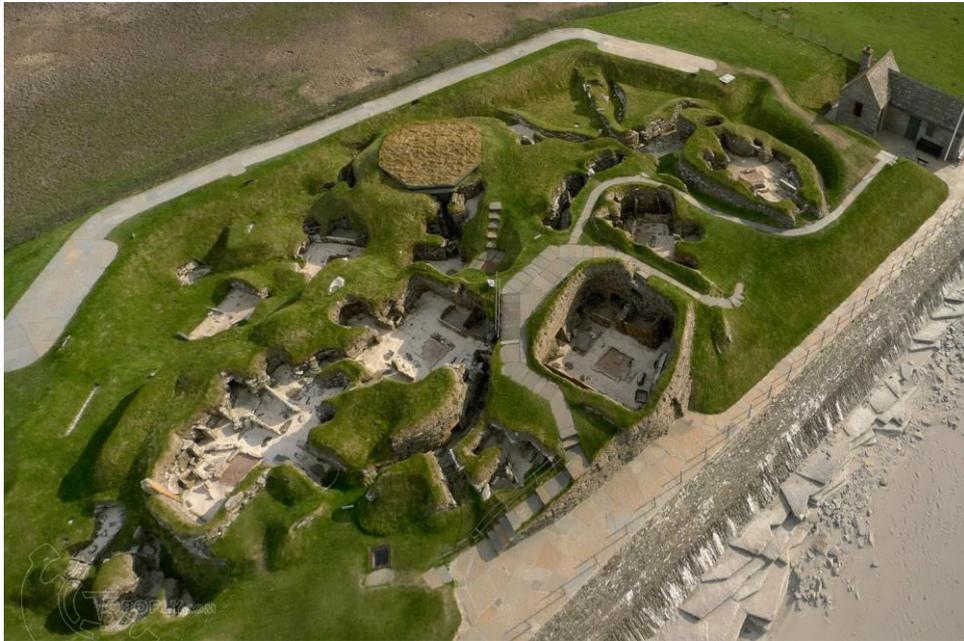


Figure 4.12. The Settlement of Skara Brae  
(Source: UNESCO, 2019b)

Management related issues are reviewing the actions and objectives regularly, planning the tasks by stakeholders and managing the interdisciplinary partnership. Establishing a management system to preserve the value of remains, providing partnership between all stakeholders including information sharing, increase community agreement and participations and ensuring the balance between environmental, natural heritage, biodiversity, social, and economic issues are proposed.

Remains related issues are conservation implementations, monitoring, maintenance and being prepared against physical damage like erosion, or situations originating from visitors. Condition survey regularly and review the areas where increased capacity is necessary are proposed.

Education related issues are training, increasing awareness, conservation with intangible heritage and research. Raising awareness by increasing the accessibility and using the site as a resource for education, training and tourism are proposed (Historic 2013).

## CHAPTER 5

### CONSERVATION PROPOSALS

After defining the conservation problems in Göbekli Tepe and analyzing the conservation proposals of other prehistoric circular planned remains from the world, proposals were developed for conservation of Göbekli Tepe by considering the conservation approaches for Göbekli Tepe defined in management plan. Conservation proposals were developed for site and enclosures.

#### 5.1. Conservation Proposals for Site

Conservation proposals for site were categorized as concerning management, environment, presentation and remains.

- **Proposals about management:** The proposals below were determined in the scope of site management plan (Leo, Merbach, and Pant 2017).
  - Acceleration of decision making process by identifying the roles of stakeholders in management,
  - Providing coordination of stakeholders and interdisciplinary partnerships,
  - Providing communal participation and therefore sustainable development,
  - Identification of rules for controlling the development of site, environment and infrastructure,
  - Supporting the research to increase the understanding about the site,
  - Review and developing of the objectives and actions regularly,
  - Sharing regularly the researches and information about the site with stakeholders and with community.
- **Proposals about the environment:** In addition to the subjects in the management plan, proposals were developed within the scope of the study.
  - For integrated conservation, designing permanent protective structure protecting the remains from weather conditions,
  - Planning the visitor traffic by preparing controlled visitor program.

- Being prepared by identifying possible effects of uncontrolled tourism and planning sustainable tourism to minimize possible damage,
- Improving standards for service buildings to preserve the buffer zone stated as interaction area.
- **Proposals about the presentation:** In addition to the subjects in the management plan, proposals were developed within the scope of the study.
  - Preparing the landscape project including 1st degree archeological site and 3rd degree archeological site,
  - Interpretation through spaces enhanced via augmented reality,
  - Developing the visitor center according to information obtained with visitor management plan and excavations,
  - Creating visitor sightseeing route including all prehistoric sites in the region by connecting to each other.
- **Proposals about the remains:** In addition to the subjects in the management plan, proposals were developed within the scope of the study.
  - Documenting the remains annually by monitoring regularly (Condition report),
  - Developing conservation interventions for structural elements: stabilization project specifically developed for walls to prevent the existing and possible damage on the walls, planning the support system project for deformed pillars, monitoring regularly and maintenance for floors to detect possible damage.

Proposals developed in the scope of the study are; developing the visitor center according to information obtained with visitor management plan and excavations, creating visitor sightseeing route including all prehistoric sites in the region by connecting to each other, developing conservation interventions for structural elements: stabilization project specifically developed for walls to prevent the existing and possible damage on the walls, planning the support system project for deformed pillars, monitoring regularly and maintenance for floors to detect possible damage. Proposals developed according to results from analysis of construction technique and alignment characteristics were stated as;

- Interpretation through spaces enhanced via augmented reality: Interpretation of spaces according to ratio of diameter/diagonal to central pillar height as 2.5 and

presentation the restitution of them is helpful for understanding the volume of enclosures in different dimensions.

- Designing permanent protective structure protecting the remains from weather conditions for integrated conservation: New protective structures should be designed according to reflect the volumetric characteristics of enclosures as in the ratio of diameter/diagonal to central pillar height as 2.5. The ratio of diameter/diagonal to height belonging protective structure should be multiple of 2.5.

In the scope of creating visitor sightseeing route including all prehistoric sites in the region by connecting to each other, other prehistoric sites close to Göbekli Tepe are Nevalı Çori, Karahan Tepe, Taşlı Tepe, Kurt Tepe, Hamzan Tepe, Sefer Tepe, Ayanlar Mound, Harbetsuvan Tepesi, Gürcü Tepe, Yoğunburç, Sayburç, Çakmaktepe and Yeni Mahalle.



Figure 5.1. Prehistoric sites around Göbekli Tepe  
(Source: Revised from Google, 2020)

These are archeological sites containing remains from prehistoric era. Visitor sightseeing route including all prehistoric sites in the region should be developed and the connection between these sites should be provided (Figure 5.1). In addition, the route should be developed in accordance with the knowledge obtained from the excavation and researches in future.

## **5.2. Conservation Proposals for Enclosures**

Proposals according to conservation problems were specific for each enclosure. The structural elements needed for conservation implementations are wall, pillars, floor and objects.

### **5.2.1. Enclosure with Snake Motive (Enclosure A)**

- Walls of enclosure with snake motive (A) had high risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here.
- The stability of pillar on the northwest circular wall of enclosure with snake motive (A) had deteriorated. Support system for the pillar should be developed by planning the project.
- The floor of enclosure with snake motive (A) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.
- U-shaped stone on the floor of enclosure with snake motive (A) had medium risk of loss of significant heritage material. Conservation proposals should be developed by examining in detail for possible problems as crack and material deterioration.

### **5.2.2. Enclosure with Fox Motive (Enclosure B)**

- Walls of enclosure with fox motive (B) had high risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here.
- The stability of east central pillar of enclosure with fox motive (B) had deteriorated. Support system for the pillar should be developed by planning the project.
- The floor of enclosure with fox motive (B) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.

- Offering vessel on the floor of enclosure with fox motive (B) had immediate risk of loss of significant heritage material. Project for anastelosis should be developed to provide integrity of the element.

### **5.2.3. Enclosure with Wild Boar Motive (Enclosure C)**

- Walls of enclosure with wild boar motive (C) had immediate risk of loss of significant heritage material. Preventing damage and deterioration in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here. For material deterioration, proposals should be developed after detailed analysis.
- The stability of east central pillar of enclosure with wild boar motive (C) had deteriorated. Support system for the peripheral pillar on the north should be developed by planning the project. Reinforcement for west central pillar and peripheral pillar on north should be developed by planning the project. For material deterioration, proposals should be developed after detailed analysis.
- The floor of enclosure with wild boar motive (C) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.
- The objects on the floor of enclosure with wild boar motive (C) had high risk of loss of significant heritage material. Stabilization and reinforcement project should be developed to prevent the deformation.

### **5.2.4. Enclosure with Animal Scenery Motive (Enclosure D)**

- Walls of enclosure with animal scenery motive (D) had high risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here.
- The stability of central pillars of enclosure with animal scenery motive (D) had deteriorated. Support system for central pillars should be developed by planning the project.

- The floor of enclosure with animal scenery motive (D) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.

#### **5.2.5. Enclosure with Dog Motive (Enclosure F)**

- Walls of enclosure with dog motive (F) had immediate risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization and designing protective cover. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here. Protective structure should be planned to cover all the remains against weather conditions.
- The pillars of enclosure with dog motive (F) had immediate risk of loss of significant heritage material. Support system for central pillars should be developed by planning the project. Protective structure project should be planned.
- The floor of enclosure with dog motive (F) had high risk of loss of significant heritage material. Protective structure project should be planned. The floor should be monitored periodically and the condition should be documented.

#### **5.2.6. Enclosure with Leopard Motive (Enclosure H)**

- Walls of enclosure with leopard motive (H) had high risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here.
- The stability of central pillars of enclosure with leopard motive (H) had deteriorated. Support system for central pillars should be developed by planning the project.
- The floor of enclosure with leopard motive (H) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.

### **5.2.7. Enclosure with Lion Motive (Enclosure L)**

- Walls of enclosure with lion motive (L) had high risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization of walls. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here.
- The pillars of enclosure with lion motive (L) had immediate risk of loss of significant heritage material because of deformation and breaking. Support system for central pillars should be developed by planning the project.
- The floor of enclosure with lion motive (L) had low risk of loss of significant heritage material. The floor should be monitored periodically and the condition should be documented.

### **5.2.8. Enclosure E**

- The pillars of enclosure E had high risk of loss of significant heritage material. Protective structure should be planned to cover all the remains against weather conditions. The remains should be monitored periodically and the condition should be documented.
- The floor of enclosure E had high risk of loss of significant heritage material. Protective structure should be planned to cover all the remains against weather conditions. The remains should be monitored periodically and the condition should be documented.

### **5.2.9. Enclosure G**

- Walls of enclosure G had immediate risk of loss of significant heritage material. Preventing damage in the wall is possible with stabilization and designing protective cover. Stabilization should be implemented with appropriate capping technique to be developed by considering specific situation of the walls here. Protective structure should be planned to cover all the remains against weather conditions.

- The pillars of enclosure with dog motive (F) had high risk of loss of significant heritage material due to material loss. Support system for central pillars should be developed by planning the project. Protective structure project should be planned.
- The floor of enclosure G had low risk of loss of significant heritage material. Protective structure project should be planned. The floor should be monitored periodically and the condition should be documented.

Among the structural elements of the enclosures in the site, walls were the elements requiring immediate and most interventions. In order to prevent the material loss on the wall, stabilization projects should be developed as a priority. Designing the project of support system is necessary for pillars.

## CHAPTER 6

### CONCLUSION

Archeological sites document the social characteristics, lifestyle, culture and technological knowledge with the remains. Therefore, the conservation and presentation of these remains with appropriate scientific techniques is significant. Göbekli Tepe is a site started to be excavated in 1995 and containing architectural remains belongs to prehistoric communities. First degree archeological site registered in 2005 is 126 hectares. Remains unearthed with excavations in Göbekli Tepe are circular and rectangular planned enclosures including T-shaped pillars in center and in peripheral walls. Enclosures belonging to prehistoric era were dated to layer III and layer II. Layer III comprised early pre-pottery Neolithic A (9600-8700 BC) and layer II comprised early pre-pottery Neolithic B (8700-8200 BC)(Schmidt 1995; 2005a).

Considering the enclosures unearthed in Göbekli Tepe and the period they were built, different information commonly known had emerged about the prehistoric period. It was thought that hunter-gatherer societies living in that period only built domestic enclosures. It was a new piece of information about the history of humanity that communities that had not yet settled down but that lived in a hunter-gatherer order had built complex gathering areas like those in Göbekli Tepe. It has been stated that the outstanding universal value of Göbekli Tepe, which was included in the World Heritage List in 2018, is due to the fact that it represents a masterpiece of humankind, architecturally symbolizes an important inter change for humanity in architecture and is architectural evidence of an important stage in human history (UNESCO 2018).

Seven of nine enclosure unearthed present in the site were dated to layer III and two of them were dated to layer II. Number of wall rows, wall thickness, number of pillars, dimension of pillars, pillar bases, floor materials of enclosures about construction technique; form, area of enclosures, form of motives, location of motives in pillars about alignment characteristics were identified to specify the similarities and differences between layers. For the relationships between these components; enclosure area with pillar numbers, pillar dimensions, number of wall rows, dimension of central pillars, central pillar dimension with peripheral pillar dimension, diameter or diagonal with

dimension of central pillar, disposition of pillars with walls, angles and dimension between pillars were analyzed. As a result of these analysis it was determined that the wall, pillar and floor material were used similar in both layers, walls in different thickness were used in some enclosures and walls in same thickness were used in some enclosures, the total numbers of pillars were not proportional to area of enclosure, motives with animal forms were used more than the motives in geometric forms, motives were located on the wide surface and body of pillars, the dimension of pillars in same layer were different from each other, the ratio of area to central pillar dimension was close to each other in 3 enclosures [enclosure with fox motive (B), enclosure with animal scenery motive (D), enclosure with lion motive (L)], the ratio of diameter to central pillar dimension was same in 2 enclosures [enclosure with fox motive (B), enclosure with wild boar motive (C)], the angles between pillars are acute commonly, the distances between pillars in enclosures were commonly different from each other, pillars are located perpendicular to walls commonly. It might be stated as being close of the ratio of the area to the central pillar dimension to each other in two enclosures in same layer and one enclosure in other layer indicated that there was a common construction technique/planning system between the enclosures, the system continued in another layer, being same of the ratio of the diameter to the central pillar dimension in two enclosures from same layer and close to one enclosure in other layer pointed out that there was an attempt to providing the system including constant ratio. The continuity of construction technique and alignment characteristics between layers was revealed.

Conservation problems of enclosures had been determined within the framework of the European Standard titled “Cultural Heritage - Assessment and Monitoring of Archaeological Deposits for Preservation in Situ (EN 17652)”. This document guides the definition of the state of preservation, the preservation conditions of the remains and the risk classes determined accordingly. The definitions in the standard were defined within the scope of the study and adapted for Göbekli Tepe. State of preservation were categorized as excellent, good, poor and very poor. Preservation condition were categorized as excellent, good, poor and very poor. Risk class were categorized as low, medium, high and immediate risk of loss of significant heritage material. Data obtained from observation about state of conservation and preservation conditions of the structural elements were compared and risk classes were determined. As a result of this examination, the walls of the enclosure with wild boar motive (C) and enclosure with dog

motive (F), the pillars of enclosure with dog motive (F), walls of enclosure G, objects of enclosure with fox motive (B) and enclosure with wild boar motive (C) are in immediate risk of loss of significant heritage material. Enclosure containing highest risk were enclosure with dog motive (F) and enclosure with wild boar motive (C). Remains belonging to these enclosures had highest risk with the elements in immediate or high risk of loss of significant heritage material. Enclosures with lowest risk were enclosures with animal scenery motive (D) and enclosure with leopard motive (H). enclosure with snake motive (A), enclosure with fox motive (B), enclosure with lion motive (L), enclosure E and enclosure G were in medium risk of loss of significant heritage material.

After the risk classes of the structural elements of the enclosures in the area were determined, conservation proposals were developed. Designing a permanent protective structure protecting the remains against the harmful effect of weather conditions for a holistic protection in the area, planning visitor traffic by preparing controlled visitor programs, developing alternative suggestions against the possible problems based on uncontrolled tourism and planning sustainable tourism in order to minimize the damage to the area, planning the landscape design containing the 1st and 3rd degree Archeological Site, establishing visiting links with other prehistoric sites in the region, conservation interventions specific to structural elements; in this context, the development of research-based stabilization techniques to prevent further damage to the walls, preparing projects regarding the support system to support the deformed pillars, regular monitoring to detect possible damage to the floors and maintenance were proposed.

This study indicated that there was continuity of construction technique between enclosures from same layers in Göbekli Tepe and this construction technique had repeated between layers. Analysis of relationships between structural elements considered in the study, might be applied for the enclosures that will be unearthed in the future. Conservation of these characteristics will be provided with conservation proposals in site scale and in enclosure scale.

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# VITA

## **Personal Information**

**Surname, Name:** Çelik, Keziban

## **Education:**

**Ph.D.**, Architectural Restoration, İzmir Institute of Technology, İzmir, Turkey (2022)

Thesis: “Conservation Proposals for Göbekli Tepe Enclosures”

**M.Sc.**, Architectural Restoration, İzmir Institute of Technology, İzmir, Turkey (2016)

Thesis: “Restoration of a Traditional Residential Building in Şanlıurfa”

**B.Arch.**, Architecture, İzmir Institute of Technology, İzmir, Turkey (2013)

## **Work Experience:**

**Research Assistant**, İzmir Institute of Technology, Department of Architectural Restoration (2014-...)

**Researcher**, MARE17 Summer School, Aristotle University of Thessaloniki (July 2017)

**Architect**, AS Yapı (2013-2014)