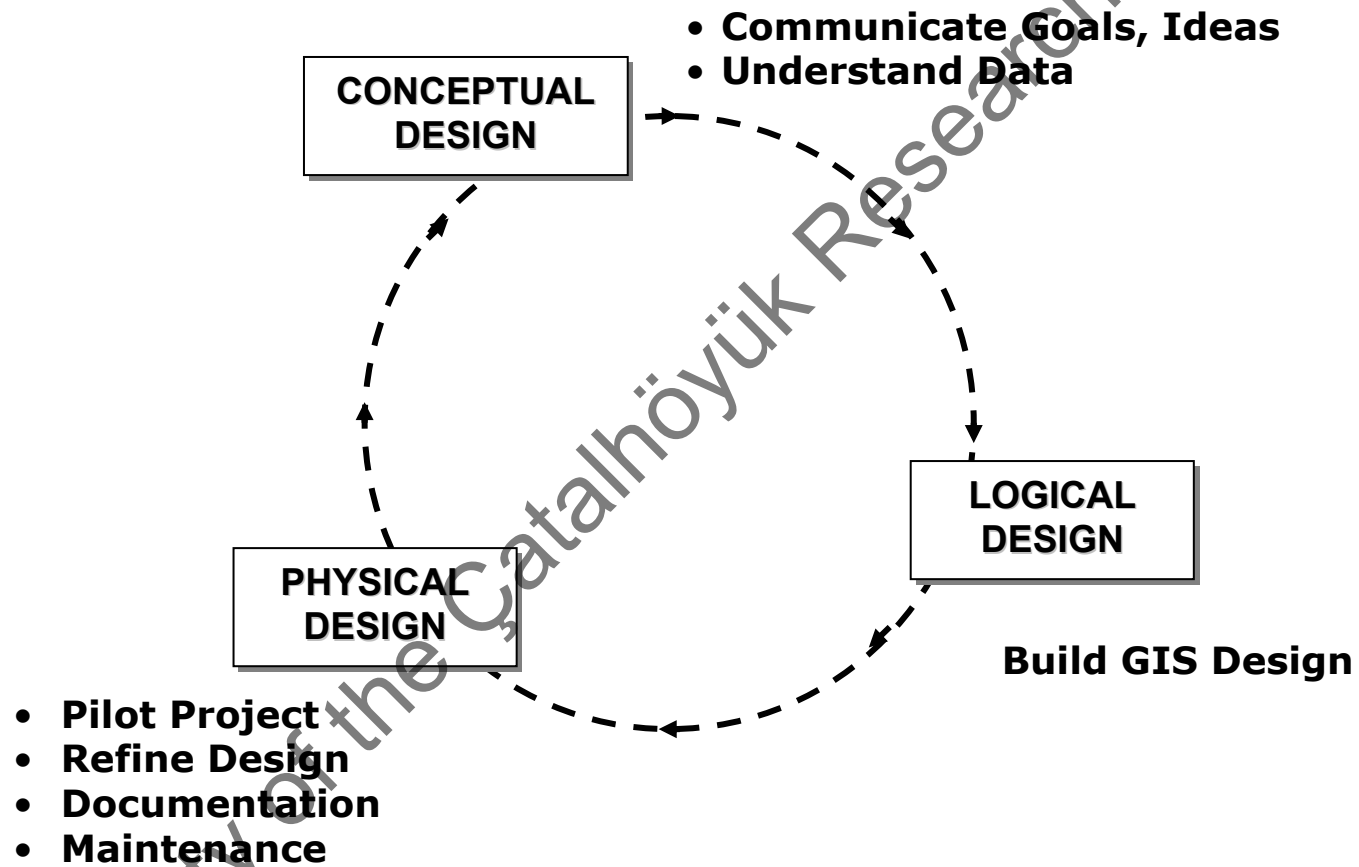
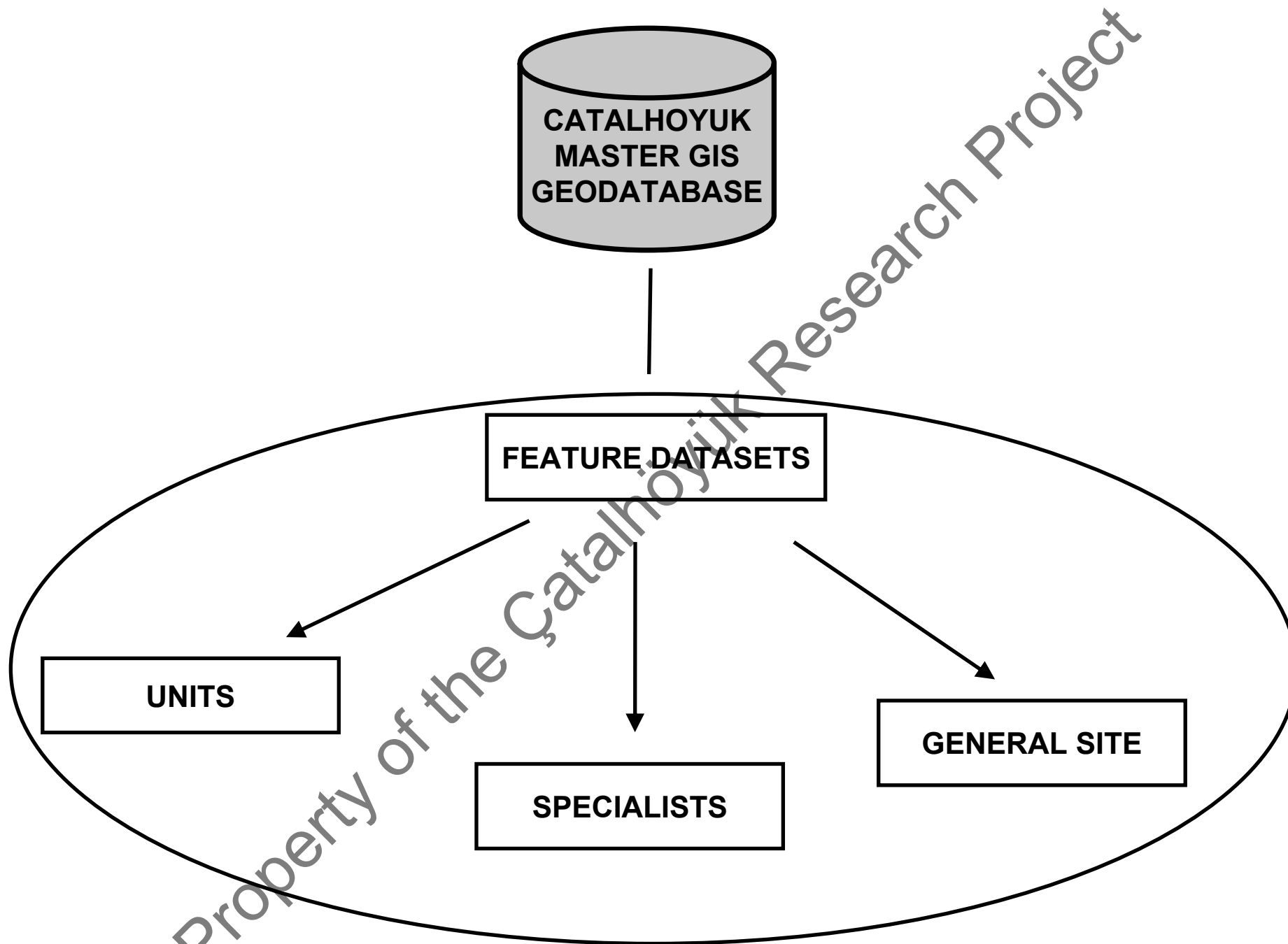


# ÇATALHÖYÜK GIS PROJECT





# FEATURE DATASETS

## GENERAL SITE



Spaces\_4040\_polygons  
Trenches\_4040  
Trenches\_south  
Buildings\_Polygons  
Walls93\_94\_polylines  
Spaces\_93\_94\_annot  
ations

## UNITS



Units\_Footprints  
Units\_details  
Plaster\_XY  
XFinds\_4040  
\_Topology

## SPECIALISTS



Skeletons\_4040  
Area  
Samples\_XY  
Xfinds\_South

# FEATURE CLASSES

## UNITS (feature dataset)

### UNITS\_FOOTPRINTS (feature class - polygons):

Feature class storing the outline of each excavated unit in its best digital representation (polygons). Each unit excavated and recorded as a single context has been digitised in AutoCAD exported to ArcGIS, saved as a shp file and uploaded into the Çatalhöyük GIS Geodatabase. Each unit is defined by one polygon only, when multiple polygons have been digitised in AutoCAD they have been merged in ArcMap and details stored into the Units\_details feature class. Polygons have then been linked to the excavation database and the basic spatial organisation of the site and description of each stratum, attached to the digitised polygons and stored into the Units\_Footprints feature class. The temporal dimension is stored as phasing.

UnitNo	DataCategory	Location	Description	Material	TotalDepositVolume	Building	Space	Feature	Sam eAs	Area	Year	Phase	Occupati onPhase
13253	Floor (use)	feature	bin	White clay	5	58	227	2128		4040	2006	4040.F	B55.A

This table is going to be used for analysis performing and will be linked to the specialists databases. The Units\_Footprints feature class will be used for map making as well together with the Units\_Details feature class.

## Units\_Footprints table + Q\_Update\_Units\_Footprints :

UnitNo	DataCategory	Location	Description	Material	TotalDepositVolume	Building	Space	Feature	Sam eAs	Area	Year	Phase	Occupati onPhase
13253	Floor (use)	feature	bin	White clay	5	58	227	2128		4040	2006	4040.F	B55.A

Automatically refreshable  
(Q\_Update\_Units\_Footprints) from  
Exca: Units Data Categories

Automatically refreshable  
(Q\_Update\_Units\_Footprints) from  
Units Sheet with Relationships

Automatically refreshable  
(Q\_Update\_Units\_Footprints) from  
Exca: Units Occupation  
Phase (This table will need to  
be replaced with Units Sheets  
with Relationships as soon as  
the occupation phase will be  
uploaded into this table)

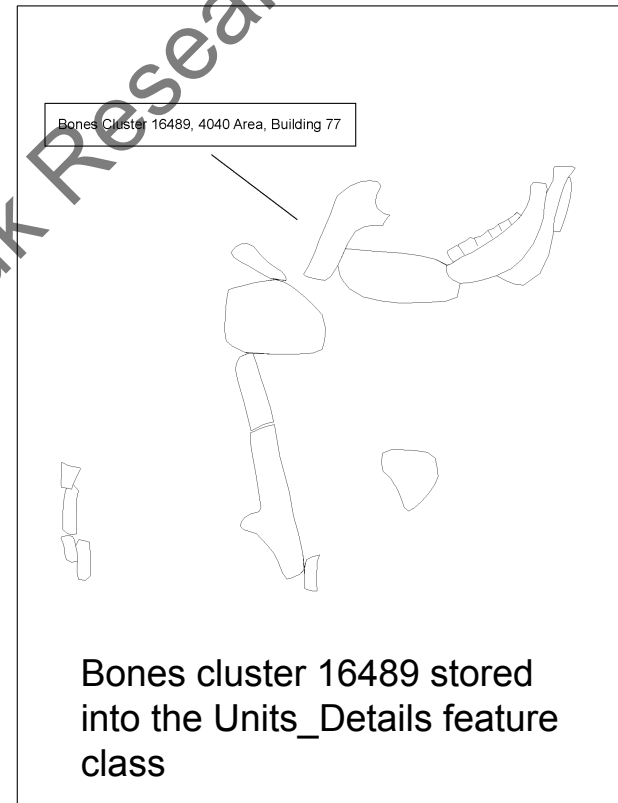
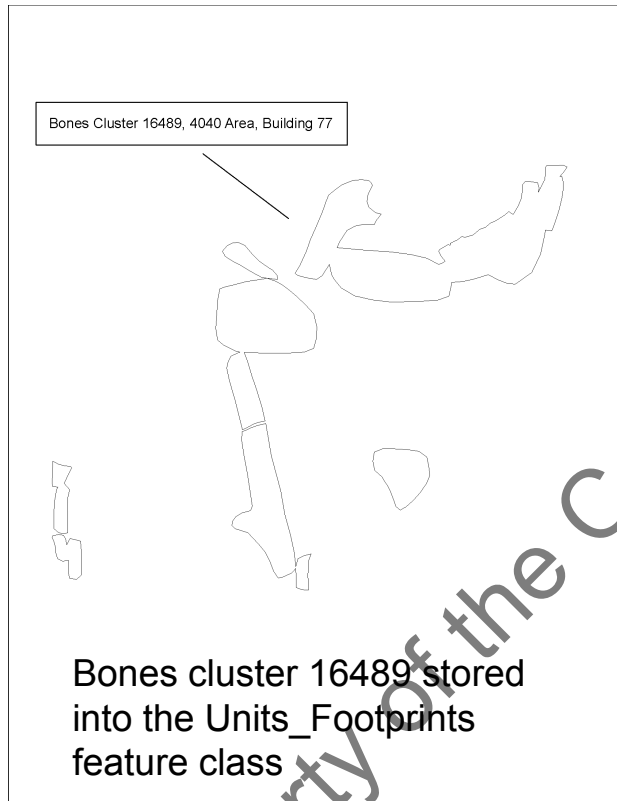
Field:	DataCategory	Location	Description	Material	TotalDepositVolume	Building	Space	Feature	Area	Year	Excavation
Table:	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints	Units_Footprints
Update To:	[Exca: Unit Data Catego]	[Exca: Unit Data Catego]	[Exca: Unit Data Catego]	[Exca: Unit Data Catego]	[Unit Sheet with Relati]	[Unit Sheet with Relati]	[Unit Sheet with Relati]	[Unit Sheet with Relati]	[Unit Sheet with Relati]	[Unit Sheet with Relati]	[Unit Sheet with Relati]
Criteria:											
or:											

Q\_Update\_Units\_Footprints

✧ Phase = Hodder Phase

## UNITS\_DETAILS (feature class- polygons):

Feature class storing units details that have been lost in the merging process and are not visible in the Units\_Footprints feature class. Each unit can be represented by more than one polygon. This feature class will not be used for performing analysis but will be only used for map making.



On the left only the outline of the unit is represented while on the right multiple polygons were kept and details are visible.

## Units\_Details table + Q\_Update\_Units\_Details :

UnitNo	DataCategory	Location	Description	Material	TotalDepositVolume	Building	Space	Feature	Sam-eAs	Area	Year	Phase	OccupationPhase
13253	Floor (use)	feature	bin	White clay	5	58	227	2128		4040	2006	4040.F	B55.A

Automatically refreshable  
(Q\_Update\_Units\_Details) from  
Exca: Units Data Categories

Automatically refreshable  
(Q\_Update\_Units\_Details) from  
Units Sheet with Relationships

Automatically refreshable  
(Q\_Update\_Units\_Footprints)  
from Exca: Units Occupation  
Phase (This table will need to  
be replaced with Units Sheets  
with Relationships as soon as  
the occupation phase will be  
uploaded into this table)

Field:	TotalDepositVolume	Building	Feature	DataCategory	Location	Description	Material	Space	Phase	OccupationPhase
Table:	Units_details	Units_details	Units_details	Units_details	Units_details	Units_details	Units_details	Units_details	Units_details	Units_details
Update To:	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat	Unit Sheet with Relat
Criteria:	or:									

Q\_Update\_Units\_Details

### Xfinds\_4040 (feature class – points)

This table stores all the plotted X finds for the 4040 area. Each X find is a point defined by its X,Y and Z coordinates. For each X find a type description is given according to the Excavation Database; GID, Unit Numbers and X Numbers are stored as well.

Each X find is linked to the Building, Space and Feature numbers and to the description of the unit they belong to (UnitDataCategory, UnitDescription, UnitLocation and UnitMaterial).

Occupation Phase and HodderPhase (Phase) are then linked to the X finds through their Unit number.

In order to better define the right location of each X find in the 4040 area and perform data cleaning a Topology relationship class has been created (Units\_Xfinds\_Topology ). X finds points and Units Footprints polygons have been linked and topology rules defined enabling for topology validation (**Must Be Properly Inside Polygons:** Requires that points fall within area features – X finds must be inside unit footprints polygons)



## Xfinds\_4040 table + Q\_Update\_Xfinds\_4040:

GID	UnitNo	XfindNo	FindType	UnitData Category	UnitLocation	UnitDescription	UnitMaterial	Building	Space	Feature	X	Y	Z

Phase	OccupationPhase

Automatically refreshable  
(Q\_Update\_Xfinds\_4040) from Exca: Units Data Categories

Automatically refreshable  
(Q\_Update\_Xfinds\_4040) from Units Sheet with Relationships

Automatically refreshable  
(Q\_Update\_Xfinds\_4040) from Exca: Units Occupation Phase

Automatically refreshable  
(Q\_Update\_Xfinds\_4040) from Exca:X-Finds:Basic Data

Q\_Update\_Xfinds\_4040

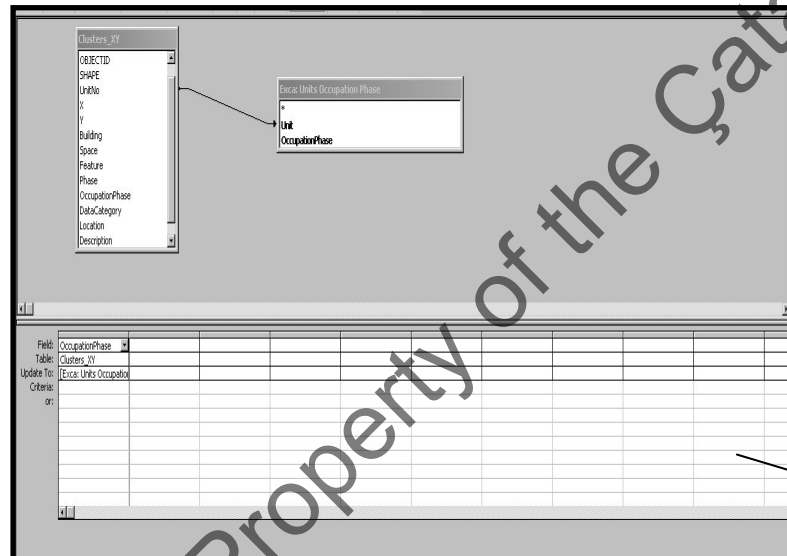
Exca: X-Finds:Basic Data	Xfinds_4040_Topology	Exca: Unit Data Categories	Exca: Units Occupation Phase	Units_Footprints
OBJECTID SHAPE GID UnitNo XFindNo FindType X Y Z Phase OccupationPhase Building Space Feature UnitDataCategory UnitLocation UnitDescription		Unit Number Date Changed Data Category In Situ	Unit OccupationPhase	OBJECTID SHAPE UnitNumber DataCategory Location Description Material TotalDepositVolume Building Space Feature Phase OccupationPhase Area
Field: UnitDataCategory Table: Xfinds_4040_Topology Update To: [Exca: Unit Data Category] Criteria: or	Field: UnitLocation Table: Xfinds_4040_Topology Update To: [Exca: Unit Data Category] Criteria: or	Field: UnitDescription Table: Xfinds_4040_Topology Update To: [Exca: Unit Data Category] Criteria: or	Field: UnitMaterial Table: Xfinds_4040_Topology Update To: [Exca: Unit Data Category] Criteria: or	Field: OccupationPhase Table: Xfinds_4040_Topology Update To: [Exca: Units Occupation Phase] Criteria: or

## CLUSTER\_XY (feature class – points)

This feature class stores the mid x and y coordinates for each cluster recorded on site.

The clusters points are stored together with their unit, building, space and feature numbers. A description for each unit is provided and the occupation phase and Hodder phase stored.

Unit Number	X	Y	Building	Space	Feature	Phase	Occupation Phase	Data Category	Location	Description	Material



Automatically refreshable  
(Q\_Update\_Clusters\_XY)  
from Exca: Units  
Occupation Phase

Q\_Update\_Clusters\_XY

### **PLASTER\_XY (feature class- points):**

This feature class stores mid x and y points for each plaster unit. Plaster units are represented into the Çatalhöyük GIS Geodatabase as their mid x and y points.

For each point its unit number is stored together with a description of the plaster unit and the building, space and feature the unit belongs to.

UnitNo	FeatureNo	SpaceNo	BuildingNo	X	Y	Description	SameAs	Area	Year	Phase	PhaseInBuilding

Empty at the moment

## **Specialists (feature dataset)**

### **Xfinds\_South (feature class – points)**

This table stores all the plotted X finds for the South area. Each X find is a point defined by its X,Y and Z coordinates. For each X find a type description is given according to the Excavation Database; GID, Unit Numbers and X Numbers are stored as well.

Each X find is linked to the Building, Space and Feature numbers and to the description of the unit they belong to (UnitDataCategory, UnitDescription, UnitLocation and UnitMaterial).

Occupation Phase and HodderPhase (Phase) are then linked to the X finds through their Unit number.

Xfinds\_South table + Q\_Update\_Xfinds\_South:

GID	UnitNo	XfindNo	FindType	UnitData Category	UnitLocation	UnitDesc ription	UnitMate rial	Building	Space	Feature	X	Y	Z

Phase	Occupati onPhase

Automatically  
refreshable  
(Q\_Update\_Xfi  
nds\_South)  
from Exca:  
Units  
Occupation  
Phase

Automatically  
refreshable  
(Q\_Update\_Xfinds\_404  
0) from Exca:X-  
Finds:Basic Data

Automatically  
refreshable  
(Q\_Update\_Xfinds\_So  
uth) from Exca: Units  
Data Categories

Automatically refreshable  
(Q\_Update\_Xfinds\_South)  
from Units Sheet with  
Relationships

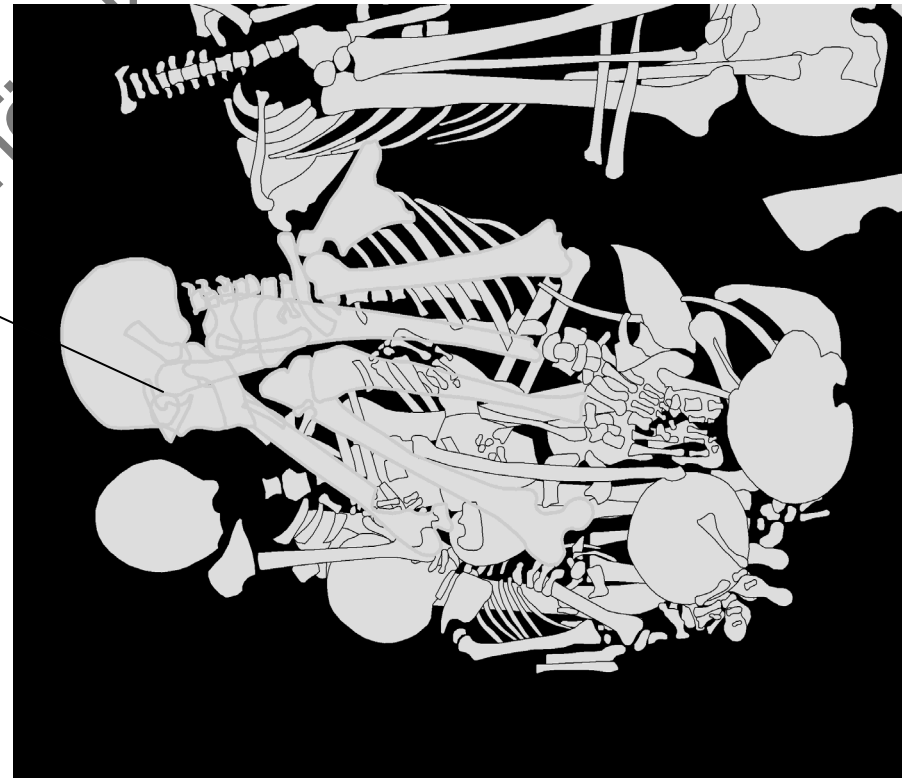
## **Skeletons\_4040 (feature class – polygons)**

All the excavated skeletons in the 4040 area have been digitised and stored as polygons into the Skeletons\_4040 feature class.

Each bone has been digitised and linked to unit, feature, building and space numbers; time/period information and data category description are stored as well.

Each bone is a polygon. A skeleton is made of multiple polygons sharing the same Unit number and information.

Multiple Unit numbers have been kept in the GIS feature class.



## Skeletons\_4040 + Q\_Update\_Skeletons\_4040:

Unit Number	Data Category	Description	Location	Material	Time Period	Building	Space	Feature	Occupation Phase	Area	Year
									✦		

Automatically refreshable  
(Q\_Update\_Skeletons\_4040)  
from Exca: Units Data  
Categories

Automatically refreshable  
(Q\_Update\_Skeletons\_4040)  
from Units Sheet with  
Relationships

Automatically refreshable  
(Q\_Update\_Skeletons\_4040)  
from Exca: Units  
Occupation Phase

✦ The Hodder Phase will be added to the table and synchronised to the main database

## GENERAL SITE (feature dataset)

**Trenches\_4040 and Trenches\_South (feature classes-polygons):** feature classes storing the outline of the excavated areas in the 4040 and South areas.

Trench	Year

**Spaces\_4040\_Polygons (feature class-polygons):** feature class storing the outline of each space in the 4040 area.

SpaceNo	Description	Area	Year	Phase ✧

**Buildings\_Polygons (feature class- polygons):** this feature class stores the outline of each building in the 4040 and South area.

BuildingNo	SpaceNo	Description	Area	Year	Phase ✧

✧ Phase = Hodder Phase



## walls93\_94\_polylines (feature class- lines):

This feature class linked to its annotation (symbology) class (Spaces93\_94\_annotation) is storing the outline of spaces and buildings for the 1993 and 1994 scrape area.

Lines have been used for map making and are not going to be used for analysis performing.

Text is stored into the “Spaces93\_94\_annotation” feature class

