Ancient Saar Project: Saar GIS

Introduction

The Saar GIS contains the plans of buildings and installations, as well as the location of all *in situ* finds, excavated at Saar, Bahrain, by the London-Bahrain Archaeological Expedition from 1990 to 1999. This material was digitized from field plans drawn on A2 sheets during the excavations, now held by the National Museum of Bahrain. The plans were subsequently scanned by the Bahrain Centre for Studies and Research in the late 1990s as part of the centre's collaboration with the project. The scans were then digitized courtesy of Bentley Systems, Bahrain, using MicroStation CAD software, before being transferred and georeferenced in an ArcMap project and then, subsequently in 2019, moved to an open source QGIS project.

Detailed floor plans from each building were not digitised and are currently part of the paper archive held by the National Museum of Bahrain where they can be viewed on request.

The Data

The data comprises the following files:

File name	Description
architecture.shp	'Flat' plans of the excavated walls of all the buildings.
Installations_line.shp	Plans of the domestic installations.
Installations_poly.shp	
Saar Spot finds.shp	Location of all plotted small finds.
CONTOURS_DGN_annotation.shp	Contours in and around Saar.
CONTOURS.DGN_Polyline.shp	
coast.shp	Outline of coast of Bahrain as at c.1995.
2024 GIS CONTEXTS.csv	.csv file providing further information about installations
CATALOGUE.csv	.csv file providing catalogue description of each small find.
Building Levels.xlsx	The correlation of levels within and between buildings at Saar, including some revisions to Table 2.2 in Killick & Moon 2005.

The coordinate reference of the Saar GIS is WGS84/UTM Zone 39N. EPSG 32639.

Architecture

The *architecture.shp* file has four fields: block letter, block level, site level, and wall type.

Block letter refers to the division of the settlement into housing blocks, designated by letters A to R. For the location of these, please refer to Fig. 2.1 in the published report (Killick & Moon 2005).

Block and site levels refer to the sequences within each block of houses and then across the site. See *Building Levels.xlsx* which contains revisions to Table 2.2 in Killick & Moon 2005.

Wall type designation codes are 1 = walls, 2 = robbed out walls and 3 = reconstructed walls.

Most buildings at Saar were not excavated below the earliest floor associated with the highest extant walls. Exceptions include the sequence of houses in Block C: two houses in sand (Bldgs 221 and 223) sitting above a single building (Bldg 220) which in turn was above two houses (Bldgs 228 and 229). A GIS project Is not well suited to showing sequences of superimposed buildings but by filtering on the Site Level field (2, 3 or 4) each of the above can be displayed in turn. However, minor additions and changes within the buildings are not systematically differentiated on the plan and the relevant pages in Chapter 3 of Killick & Moon 2005 should be consulted for further details of these.

Installations

There are two installation shape files, one with polygons (*Installations_poly.shp*) and one with lines (*Installations_line.shp*). Both have a single field (Context) which can be joined to the Context field of the *2024 GIS CONTEXTS.csv* file to display the following information about the installation: Type sub category (see below), Comment, House/Building number, Area, Site period, Block level and Start phase.

The installations can be displayed and sorted by type, using the codes for the sub-types as enumerated below, or by any of the other variables in the linked csv file.

CODE	DESCRIPTION
100	Wall
101	Threshold/doorway
102	Doorsocket
103	Robber trench/pit
104	Wall niche
105	Platform/bench
106	Ledge
107	Buttress
108	Step
109	Door blocking
110	Beam hole
113	Altar
114	Column
115	Offering table
150	Door equipment
200	Tannur
201	Semi-circular hearth
202	Ring-hearth
203	Misc burnt installations
204	Fire-pit
205	Straight-sided firepit
210	Cooking pot support, three legs
211	Cooking pot support, other
300	Plastered basin/storage pit
301	Plastered basin with superstructure
303	Double bin/basin
310	Buried storage jar
311	Storage vat
312	Plastered tank
400	Bench-and-basin
500	Pit (not plastered)
510	Depression
600	Miscellaneous feature
601	Post or stake hole
700	Indeterminate
	All other values = Data missing 2024

Spot Finds

The *Saar Spot Finds.shp* file is a plot of the 1500 small finds that were found *in situ* at Saar. It has one field (KEY) which can be joined to the KEY field of the file *CATALOGUE.csv*. The result displays the catalogue description of each find, taken from the site databases. Further details of the classification system used for finds can be found in the file *Using the Database* (available in the ADS archive).

Contours

CONTOURS_DGN_Annotation.shp and *CONTOURS_DGN_Polyline.shp* display the local contours in and around the site. This data was kindly provided by the Bahrain Survey Directorate.

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Reference

Killick & Moon 2005: *The Early Dilmun Settlement at Saar*, London-Bahrain Archaeological Expedition Saar Excavation Report 3. xii+367 pages, 536 colour illustrations, 2005. Ludlow: Archaeology International; 0-9539561-1-3.

See: https://archaeologydataservice.ac.uk/archives/view/saar_ba_2007/downloads.cfm