

THE DOLMEN CULTURE PROJECT: AN INTRODUCTION TO THE AL-JUFFAYN MEGALITHIC FIELD AND DISCRETE FIELD #1

Kennett Schath, Eloisa Casadei and Andrea Polcaro

Site Location and Description

The al-Juffayn dolmen field is located on the southwest edge of the modern town al-Juffayn, overlooking the Jordan valley and Sheikh Hussein bridge to the west. The east corner of the field corresponds to the coordinates N 32°28'55.0", E 035°38'59.5". The site measures 1km east-west and 1.2km north-south.

Fig. 1 shows a satellite view of the greater al-Juffayn megalithic field. The light grey dots indicate archaeological evidence registered using a handheld GPS device [Marcia Marcantoni was responsible for GPS collection, Martina Pignattini for most of the photography, and Tawfiq Huniti for survey]. The total-station survey is represented by black dots.

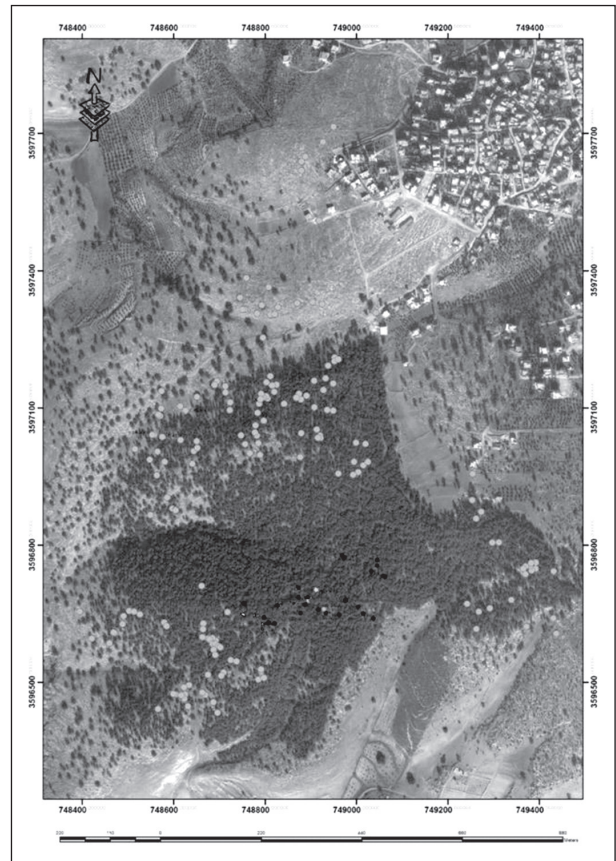
Trees in the forest restrict visibility and brush obscures surface findings. In a few small areas structures could not be reached because of fallen trees and dense vegetation. On a positive note, the site is on government land and the forest hides many of the structures. Even though people go into the area, looting has been kept to a minimum.

Destruction to the fields derives from five causes: industrial; urban; agricultural development; human plundering; natural. The main destruction to the field is from roads and trees. The city and agricultural fields encroach directly on the field edges. Destruction to outlying areas cannot be determined. Valley terracing has taken place through the centuries and continues until the present.

The al-Juffayn field falls into three main sub-fields, all having distinct clusters with different concentrations of dolmens. The three sub-fields are separated by significant valleys, described later and shown at **Fig. 3**. The al-Juffayn field

is a highly complex alignment of megalithic structures in a ritual landscape which holds important historical and cultural implications.

Archaeological knowledge of the site is rather thin, being mostly restricted to the area immediately north of the forest. In 1998, as part of the Pella Hinterland Survey, Fiona Baker logged 154 dolmens and other structures. Her survey was written up as a preliminary field report but has not been published to date. No other reports have been published for the al-Juffayn dolmen field showing the number and



1. The al-Juffayn megalithic field.

types of structures. Gajus Scheltema describes the field and provides directions to al-Juffayn in his field guide [For location/coordinates and directions, see Scheltema 2008: 67-68].

Delineation and Constraints

Although this survey was conducted in a very short period of time, three main goals were largely achieved: (1) to locate the field’s boundaries; (2) to locate a megalithic field large enough to contain several dolmen clusters with associated structures; (3) to identify a discrete field for further research, conservation and development.

Because of limited time, the focus was on recording a full representation of structures around the boundaries, and then selecting a cluster for total-station survey - which resulted in the discovery of Discrete Field (DF) #1 (see below).

There were several limitations for the collection of structural data. Time constraints meant that only clearly recognisable structures were recorded, with many small or obscure structures being passed over. The diversity of structures made selection time consuming, and some doubts still remain. The dense groupings in outlying areas were quickly examined for large indicative structures. In sum, this article is an introduction to the al-Juffayn megalithic field (henceforth JMF), rather than a definitive report.

Definition of Terms: Area/Field, Clusters, Centers, Discrete Field and Their Separation

There are at least two large megalithic fields at al-Juffayn. Therefore, if we speak about only

one of these fields in relation to other parts of the field, we must acknowledge that there is a ‘greater’ complete field. The greater megalithic field will be introduced in its simplest form: clusters and DF #1 (Fig. 2), fields and their separation (Fig. 3), and structures and their distribution (Table 1).

Four areas were surveyed with a handheld GPS device; DF #1 was then surveyed with a total station. These five areas are shown at Fig. 2; contours are shown at Fig. 3, with black lines as cluster boundaries.

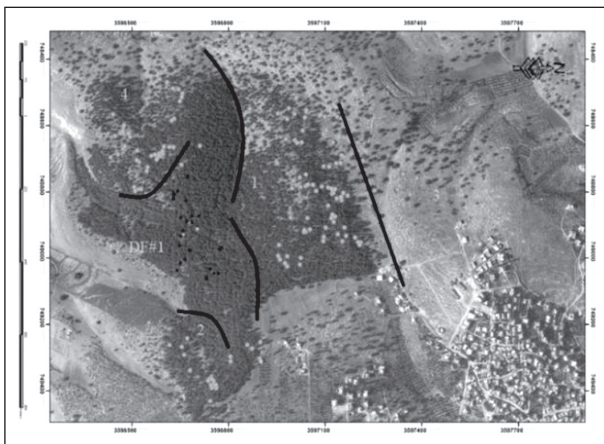
By ‘center’ we refer to an area of a field with many ritual or cultic elements. As the center is where certain ritual functions would have taken place, cup holes, cisterns and standing stones are usually present. Field 1 most likely has a center, although it proved hard to define.

The term ‘discrete field’ refers to a well-defined cluster of structures with clear boundaries. The difference between a cluster and a discrete field is that the latter contains ritual or cultic elements.

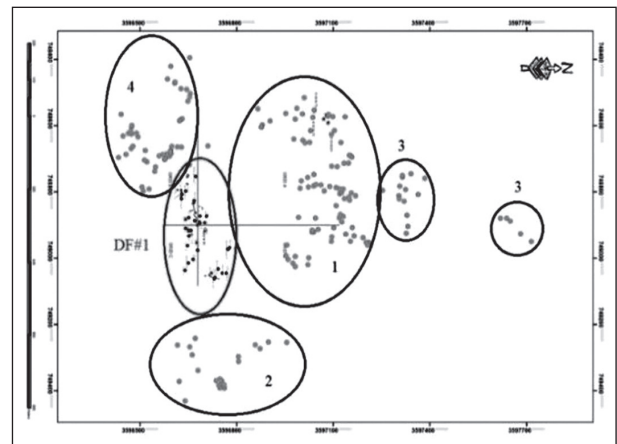
When examining the distribution of clusters, ‘separation’ enables boundaries to be recognized. Because we were unable to record fully the locations of walls providing separation [Hodder and Renfrew (1984) both discuss the implications of clusters and separation], walls were not used to determine clusters.

As this field is exceptionally complex, the list of documented structures is preliminary. The well-preserved nature of the field and the number of structures and their types, as well as the diverse grouping of structures, makes publication of an introduction to the JMF valuable.

Figs. 2 and 3 and Table 1 can be used with



2. Clusters and Discrete Field #1.



3. Fields and their separation.

the descriptions to better understand the four fields and DF #1. As the descriptions and figures are examined, the separation of clusters should become clear.

Field 1 covers the largest area in dense clusters. These clusters contain all of the structure types listed at **Table 1**, except cisterns. Field 1 is bordered by valleys to the north and south, which provide separation. **Fig. 3** shows the separation, more clearly on the south than on the north. The construction of a road cut between Fields 1 and 3 destroyed many large dolmens along its course.

The field has four tumuli, two standing stones and seven circles. These structures are significant for identifying social groups. The numerous cup holes, walls and alignments may indicate ritual functions. With a deep valley for separation, to say nothing of the quantity and diversity of structures, this field most likely has a ‘center’.

Field 2 is a small cluster that occupies a hill with great views of the Jordan valley. It is bordered by a small valley to the west and a flat area towards modern al-Juffayn, which is encroaching upon the field with urban and agricultural development. A road provides access on the eastern side of the field.

This field has very few megalithic structures (see **Table 1**); the plan and layout is markedly different to the rest of the greater field, and may indicate a dwelling area.

Field 3 covers the part of the greater field that is devoid of vegetation. The northern boundary is defined by the drop from the highlands to the Jordan valley. At the edge of the drop is a cluster of five very large dolmens. The field is being encroached upon by the main east-west road, as well as by urban and agricultural development.

Table 1: Types and number of structures by field.

Type	Area 1	Area 2	Area 3	Area 4	DF#1	Total
Dolmen	12	7	10	34	15	78
Standing stone	2	1	1	1	6	11
Circle	7	1	2	1	4	15
Walls	12	3	2	7	18	42
Tumulus	4	0	0	1	7	12
Tomb	2	3	0	3	4	12
Cup hole	7	0	0	1	5	13
Structures	6	1	0	2	1	10
Cist	1	0	1	2	0	4
Cisterns	0	0	0	0	4	4

The second cluster in this field is close to Field 1, and also borders the rim of the Jordan valley. This corner shows indications of many walls that may have defined a ritual area. This field is the most heavily looted.

Field 4 can only be accessed by passing through very rugged valleys or climbing steep slopes. There is what seems to be a narrow ‘avenue’ to DF #1 which is blocked by a wall. This field has a high concentration of structures and is covered by the densest part of the forest. For this reason, as more complete surveys are done the number of structures will certainly increase. This field is also protected by central and outer valleys which separate two clusters of megaliths. Walls are of several types here and crisscross the land. Because of the brush and trees, the walls were impossible to trace and document in the time available.

DF#1 was selected for the third phase of the project, in which one of the surveyed areas was subjected to a more complete survey using a total station. DF #1 contains every type of structure found throughout the greater field except cists (see **Table 1**). In terms of the most important structures for identifying a center (*viz.* dolmens, standing stones, circles and tumuli), they are found in abundance. DF #1 is exceptional in terms of the number and type of structures in alignment with each other. The cup holes, cisterns, tombs and walls seem to indicate some sort of ritual activity.

Types of Structure

Dolmens represent 63% of recorded structures (see **Table 1**) and are represented in all five areas of the field. They seem to be found in discreet clusters. Many of the clusters exhibit degrees of separation caused by both

topographical and man-made elements. **Fig. 3** shows where valleys provide separation.

Many of the general dolmen types introduced by Zohar (1992) are represented [Zohar's typology is widely used, but it is recognized that other types of dolmen exist]. In addition, there are several other types, *e.g.* G type (**Fig. 4**) and demi-dolmen (**Fig. 5**).

The following dolmen types are found in the JMF: types A and B, possibly type C, and variations of types D and G. Demi-dolmens and some other special designs were discovered, but these must be examined in more detail prior to publication. Dolmens in this field seem to be constructed in a manner that adapts them to the landscape.

As with most dolmen fields, the dolmens are placed where they have a wide view and are oriented to some feature. The larger dolmens seem to be clustered in proximity to what could be considered a 'center', with smaller dolmens being built on the periphery. Tumulus-type structures are usually associated with a 'center' or are regarded as being related to dolmens themselves. 'Tumulus' is our designation for the piles of stone that we recorded. Possibly, some of those we designate as tumuli are actually cairns.

Standing stones are represented in all areas of the greater field. These megaliths are often directly related to a dolmen cluster or are positioned near a dolmen. At other times they seem only to be found on the periphery of a cluster. Although it is recognized that standing stones may characterize an area, this doesn't seem to be the case in the al-Juffayn field. Here they are found in clusters and in alignment with many

different types of structure. Special design features found here include the placement of two stones together and the placement of stones at conspicuous angles.

The collection and documentation of standing stones was restricted to those with architectural components, such as being placed against bedrock or having a retaining wall [The term 'architectural component' is used by the first author to specify individual parts of megalithic structures that may define particular features]. Many of the smaller standing stones were not recorded, because they could not be contextualized or were of diminutive size.

Rock-cut tombs are found in four of the five al-Juffayn fields. It is highly likely that the remaining area contains similar rock-cut tombs which were not discovered because of the brush cover. The tombs all seem to be carved into rock and are of a common design associated with both the Early Bronze Age and Roman period. Further study is required to date them more closely.

Cup Holes are found in groups. Flint also is found near the cup holes, where much debitage is located. The vast majority of cup holes are human made.

Circles are represented in all areas of the greater field and, just like standing stones, are found in large quantities. The circles were of three general types: (1) surface; (2) non-complete (3) curb. The surface circles are seen on the surface of the ground. The non-complete circles were circular in shape, with the circle usually having some cut rock or bedrock in the structure. They are often half circles or have features such as entrances. Curb-type circles



4. G Type dolmen.



5. Possible demi-dolmen.

have larger stones above ground and may have the appearance of a platform. Only clear circles were documented.

Structures (as documented during this survey) include any rock-cut or stone foundation or enclosure that could not be categorized with greater certainty. There are a vast number of undetermined structures in this field, many of which will take time to analyze.

Cists in the al-Juffayn field are very hard to recognize because of the vast cover of bedrock and large stones. They are typically seen at ground-surface level, but in the al-Juffayn field are constructed directly on bedrock. When reviewing the season's photographs, it became apparent that - owing to an absence of top stones - some of the structures were cists. Further studies must be made of the many structures that seemed to be dolmens, but couldn't be positively identified as such.

Cisterns are only located in DF #1. This is important because they are likely to indicate domestic activity. They may also be indicative of a more sedentary aspect to life in this area.

Walls are visible throughout the greater al-Juffayn field. They seemed to be everywhere, as a result of which it proved difficult to select a representative sample for documentation. There are different shapes and sizes, using both natural and cut stones of varying dimensions. Many walls could also be viewed as alignments. Two examples are of note: (1) connecting walls for three tumuli in a row; (2) a wall splitting a double dolmen.

Pottery and Lithics

The site chronology proposed by the authors extends from the Chalcolithic to the beginning of the Early Bronze Age. However, a total lack of ceramic evidence related to the period makes this chronological attribution problematic. Furthermore, soundings have highlighted extended re-use of the area in the Late Roman or Early Byzantine period. The homogenous pottery repertoire dates from the Late Roman to Byzantine periods, with the closest parallels being at Tall al-Bīrah, Khirbat al-Wad'ah and al-Bīrah South (Peruzzetto and Wilson 1996).

The lithic material can be related to dolmen

construction dating from the Chalcolithic to Early Bronze Age. Interesting to note is the exceptional abundance of natural flint on the site, directly on the bedrock surface. A considerable quantity of flint and stone tools were found, especially blades, scrapers, drills, arrowheads and sickles.

Final Remarks and Discussion

The JMF has at least two separate large dolmen groups with associated megalithic structures. These two groups can be further separated into clusters. The boundaries of the site are largely identified. Since they are topographical in nature, most of them are very clear. On the other hand, many cluster boundaries are unclarified, so comprehensive studies must be completed. With regard to the condition of the site, although there is destruction by industrial, urban and agricultural development, looting of the structures is minimal. The JMF is possibly the best-preserved dolmen field in Jordan.

The greater al-Juffayn megalithic field remains in a very complete state. It has several areas that can be studied concurrently with conservation and development activities being undertaken in others. The forest protects the site as it is on government land and is patrolled. Before the field can be subjected to further soundings or excavation, it needs to be protected. Urban development extends directly to the edges of the forest and fields are being plowed in the small valleys coming from the field.

Future plans are to take a three-pronged approach to the documentation of the field: (1) surveys must be completed on the boundaries so assessments can be made of the different fields; (2) DF #1 will be fully surveyed using a total station and 3D technology, with research and conservation assessments being made; (3) the site needs to be surveyed to plan for selected soundings aimed at ascertaining the date of the field.

The cooperation of the al-Kurah office was exceptional and demonstrated how advantageous it is to have a Department of Antiquities archaeologist working on the project. It is the desire of this team to work with Jordanians in protecting, exploring and developing this cultural site.



6. Tumulus.



9. Cup hole.



7. Standing stone.



10. Circle.



11. Structure.



8. Tomb.



12. Cist.



13. Wall.

Kenneth Schath (with the scientific support of Perugia University)
Aichtalstr. 16
71088 Holzgerlingen, Germany
Kschath@gmail.com

Andrea Polcaro
Perugia University
Piazza Morlacchi 11, 06123 Perugia, Italy
Andrea.polcaro@unipg.it

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