A Modern Look at Dolmen Culture from Studies 2007-2014

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Abstract

The article presents un-published results and understanding from research personally conducted, on dolmens in Jordan during the last decade. Though this article is about Jordanian Dolmen Culture, dating from Europe provides a topic of discussion. ¹⁴C dating at Teleilat Ghassul (Tulaylat al-Ghassul) and pottery from undisturbed dolmens contributes to a clear profile for their age. Some background and theory is provided about dating issues. A holistic approach was used to study dolmens as part of the megalithic landscape at Tall al-Hammam Excavation Project (TeHEP), in 2007-2012 and independent studies from 2013-2014. This forms the Author's theory that dolmens are related to autonomous settlements and clusters of dolmens representing clans. Separation and group boundaries provide for autonomous relationships and many different cultural rituals were played out, in and near the dolmens. Both topographical and man-made structures such as, ridges and standing stones help delineate a clan's area. Further theory gives voice to the idea that each type of dolmen had an individual use based on their design and place, in relation to other megaliths, in a cluster, (clan group). Until types are recognized with their relationship to the megalithic landscape, their individual uses will remain a mystery. The material presented here is meant to open discussion and debate. This short article provides glimpses of data and collected material that sketches a picture of a dolmen culture. A discussion of dolmens in a holistic forum, by a collection of scholars knowledgeable in dolmens, is needed to move factual understanding forward.

Pottery and the Age of Dolmens

Dolmens around the world have existed since ancient times and are thought to be re-used in the Iron Age and Roman Period. I theorize on the other hand, that because of the absence of IA and Roman sherds in the chambers, dolmens were only used and re-used EB-MB Age, not the Iron Age or Roman Period, which are shown as divergent dates on **Table 1** and shows first use

Table 1: Archaeologist Dolmen Dating.

Theories for the dating of dolmen use					
PLACE	First Date	Second Date	Divergent Date		
Europe	4600- 4400	3700- 3600	1200+332		
Levantine Experts	4500- 3100	3600- 1800	1200+332		
HD-78 Ar- Rawdah Field	3700- 2600	N/A	N/A		
HD B.B Matabi Field	3600- 1600	N/A	N/A		
D317 Mutawwaq Field	3600- 3100	N/A	N/A		

dates for dolmens, as represented by noted Archaeologists. European and Levantine researchers push construction and first use back as far as possible, into the Stone Age, with the re-use of dolmens during the Early Bronze Age, then Iron and Roman Periods¹. Superficial sherd surveys and regional pottery evidence was heavily relied upon. This is problematic due to the absence of datable material found directly in dolmens.

However, pottery was discovered in HD 78 and HD B.B, both excavated, by the Author and TeHEP team, in the ar-Rawdah and Matabi dolmen fields² and D317 excavated by an Italian team, at Jabal al-Mutawwaq, (A. Polcaro 2014). Pottery for dating was uncovered as well as a basalt tool and beads in HD-78 and flint tools in D317. Bones were found in all three dolmens (Figs.1, 2 and 3).

The objects and bones deposited in the chambers are indicative of the cultural and ritualistic aspect of dolmen use.

Pottery evidence shown in (**Fig. 4**), represent the pottery discovered in HD-78, which had 45 separate vessels and (**Fig. 5**), HD B.B, which had 4 vessels.

The even spread in dating, for the pottery found in HD-78 represent what could be considered generational use, but a variation in dating of ±50-100 years should also be considered. More

pronounced is the 1000 to 500, year spacing of dates for the four vessels found in HD B.B. No matter how the dating for this pottery is viewed, it depicts use and re-use of the dolmens. (Figs. 6 and 7) portray the early and late dates of pottery from these dolmens.

The material found in Dolmen 317 at Mutawwaq only spans EB1, 3600-3100 BC³. Here the dolmens are integrated and an integral part of the village. Dolmens are found among an avenue and walled area of the village, which is organized and shows what seems to be some sort of hierarchy. The village at Jabal al-Mutawwaq, and its dolmen field is ca. 175 km, north of Tall al-Hammam (TeH) and provides a good comparison of an organized dolmen culture in different regions.

Radiocarbon dating gives data for the terminal dates at Teleilat Ghassul (A. Beavan and R. Sparks 2004). The Ghassulian culture was restricted to the Chalcolithic Period, ca. 4300 to 3600 BC and lends concrete reference dating for the Adiemeh dolmen field. This particular, article adds depth to the discussion about beginning dates for the dolmen culture.



2.Bones fragments.

^{1.} European Dolmen researchers referenced are J. Fergusson,

R. Joussaume and J-P. Mohen Those for Jordan are, R. Dajani,

A. Mazar, K. Prag, M. Stekelis, J. Swauger and K. Yassine.

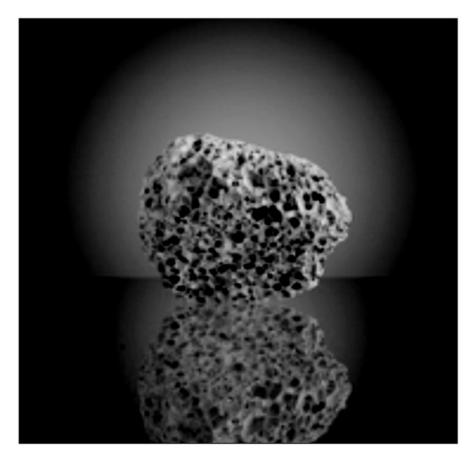
^{2.} K. Schath, From Dissertation, HD-78, 2010 and HD B.B.

^{2011 (}TBP) TeHEP.

^{3.} A. Polcaro *et al.* The referenced article does not give dating standards used so I have inserted a date of 3600 BC on Table 2.



2. HD-78, Beads.



3.Basalt fragment.

Cultural Autonomy and Dolmen Dating

Table 2, is included to introduce the Authors theory that EB I dating (A. Mazar, chronology 3300-3050 BC) is recognized, but for dolmen use throughout Jordan⁴, if a long transition of cultural change is taken into consideration, pottery dates, are pushed back to EB I, 3600 BC, which many scholars attest. This theory is again, forwarded to provoke discussion/ debate for dating the dolmen culture.

Table 2: Dolmen Chronology.

A. Mazar Chronology		Dolmen Chronology	
N A+B	6000- 4300	PN A+B	6000- 4500
СН	4300- 3300	СН	4500- 3600
EB I	3300- 3050	EB I	3600- 3100
EB II-III	3050- 2300	EB II-III	3100- 2300
EB IV	2300- 2000	IB	2300- 2000
MB II	2000- 1550	MB I	2000- 1800
		MB II	1800- 1550

Dolmen Chronology is backed by the progression of a megalithic culture, through many ages, in settlements of unbroken occupation, beginning in the Stone Age and moving forward through to Middle Bronze II. The high point of dolmens construction was likely during the transition of the Chalcolithic Period thru to Early Bronze II.

There are three cities that lie on the, rather small, ca. 24 km, circular plain north of the Dead Sea that have a deep impact on dolmen culture, because of their overlapping cultural histories. Jericho, Teleilat Ghassul, and Tall al-Hammam.

Jericho is on the west side of the Jordan River with a Neolithic culture using shaft and cave tombs. This puts its dating back in the Stone Age, earlier than PNA or 6000 BC, through to its destruction in MB II or 1550 BC.

Across the river, ca. 10 kilometers east of Jericho is Teleilat Ghassul. It had a ritualistic culture that utilized dolmens, cella and kists along with a temple during the Chalcolithic Period, or 4500-3600 BC.

The Ghassulian culture went through a ritual and cultural transition from nomadic to sedentary settlement, (they did not just appear). Changes took place to the design of megalithic structures and rituals through many generations. The plethora of funerary structures also argues for multiple religious rituals. When these people moved off the plain it is highly likely they took their culture with them.

Teleilat Ghassul used dolmens but they also had two types of structures with distinctly different uses that seem to pre-date dolmens. One, the Kist/Cist and the other a Cella. A Kist/Cist looks like a coffin made with slabs of stone just underground level and visible at the surface. They often contained full skeletons and had no top stone. The Cella is a structure that looks like a dolmen without a top-stone. The Cella is made using unhewn stone and is closed on one end. Scholars have speculated that these structures had wooden tops and the absence of abundant stone in the Adiemeh field could answer for this phenomenon.

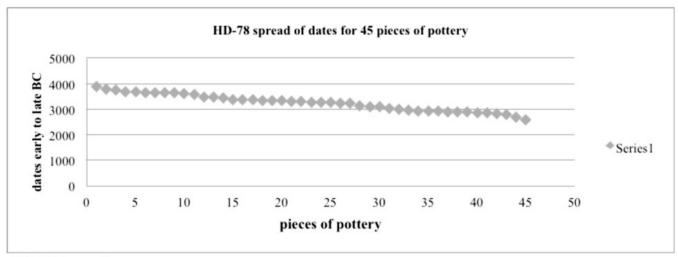
Tall al-Hammam which is the center of a large city/state is ca. ten kilometers east of Teleilat Ghassul. It used a wide mix of temples, shaft/cave tombs and megalithic structures for its ritualistic practices. The city shows an uninterrupted occupation beginning in EB1 and ending as late as MB2, or 3600-1550 BC⁵.

The dolmen fields in this circular area adjoin each other to create what I term a "Greater Megalithic Field." They begin at the Adiemeh dolmen field and follow the circular area on the eastern side and flow east up into the hills and

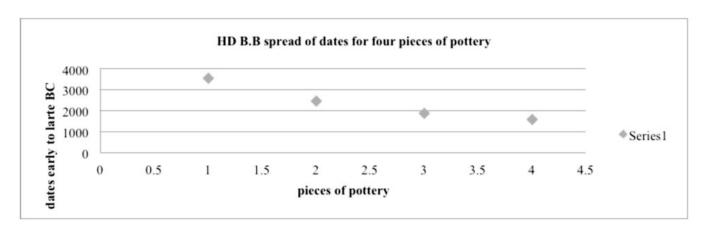
^{4.} A.Mazar, 1990, p30.

^{5.} See, S. Collins field reports 2006-2013 which provide details for the regions geography and dating.

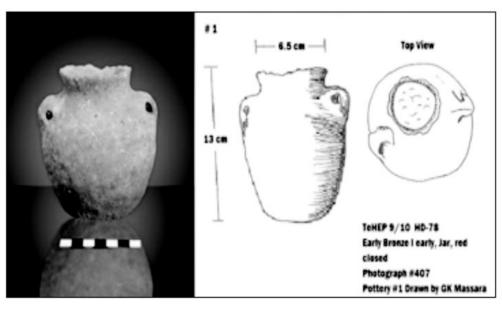
[&]quot;Greater Megalithic Field" is the whole of two or more complete Dolmen Fields adjoining each other to form one large field.



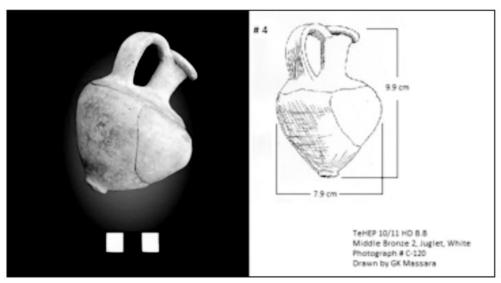
4. HD-78, Pottery Dating.



5. HD B.B, Pottery Dating.



6. HD-78, Pottery Dating.



7. HD B.B, pottery.

around to the north.

Having walked these dolmen fields which spread over 15-20 square kilometers, topographical boundaries and corresponding settlements are easily recognized. A description of the fields follow: the Adiemeh field at Tulaylat Ghassul, adjoins with al-Quttayn at Iktanu. At one time, there was reported to be some 200 dolmens, of Type A and E, design. The Type E dolmens, have two chambers vertically and are only found at al-Quttayn. This is an example of different types of dolmens with that settlement's design. Iktanu also made use of shaft tombs.

Continuing east, al-Quttayn adjoins with the Hisban dolmen field and the village of Ar-Rawdah on Wadi Hisban. This dolmen field has a distinctly different design with a simple A Type, appearing in the northern side of the Wadi and mixed with cave tombs. Another cluster of dolmens is found on the level plain to the south side of the wadi, which gives definite separation. The dolmens in this group are constructed with steps and/or thresholds

Next the Ar-Rawdah field with the village of Ar-Rawdah on Wadi Ar-Rawdah. This field lies just across the Wadi Hisban and a spur of the hill to the north and is an extremely complex field. It has large circles visible from the main highway that follows the Hisban Wadi from Amman to the Dead Sea. There are many dolmen types, megalithic structures including cave/ shaft tombs, standing stones and alignments. Here is where HD 78, a B Type dolmen, was excavated with dating is shown in (**Fig.4**).

Then to the north, on the other side of the hill forming the boundary of the Ar-Rawdah dolmen field is the Matabi field and the huge settlement of Tall al-Hammam. Matabi is another complex field with ritualistic alignments and many Standing Stones appearing at boundaries of dolmen clusters. This field has an avenue directly east to a temple complex at Tall al-Hammam. The avenue begins near HD B.B, which was excavated with pottery dating shown on (Fig. 5).

Two other villages continue back toward the west. The first Tall Tahanu, to the north of tall al-Hammam and west of Wadi Kafrayn, the second city is Tall Kafrayn, 2 ½ kilometers to the west of Tall al-Hammam. Both cities had EB shaft tomb type, ritualistic cultures.

because the dolmens are related to settlements with long occupation periods, ranging from the Stone Age to Middle Bronze II (4500-1550) and the wide range of cultural and ritualistic practices, scholars can be correct about dating construction and use across the entire spectrum. I therefore, let archaeology take care of dating dolmen fields, and research other issues.

Types and Use of Megalithic Structures

Dolmens of a specific design or "Type" must have some form of specific purpose or "use".

Each of the fields described in this article, had at least two types of dolmens and in every case, variations of the type⁷. Some of the variations are easily recognized and some very subtle. The platform of a dolmen is an easily recognized variation and steps or a retaining wall subtle. Defining the different "architectural components" has shown how complex dolmens are.

An A type dolmen, is the simplest design. It typically has two side stones and a top stone. To make it complex, elements can be added: a platform, an end stone, passage, blocking stone, floor, sub-floor, steps, retaining wall, terrace, curb and alignments among others.

Complex variations of the six types have the potential of creating different types. Until recently the G Type was not recognized and unique types undefined. Recognizing an abundance of type has a constructive advantage on future dolmen research, as it would force scholars to move away from entrenched thought about dolmens and re-evaluate old assumptions.

The question of burial, inhumation, and ancestral deposits of bones is one example. In the words of J. Swauger,

"Now the why. Common sense tells us dolmens were tombs. But to have common sense say they are tombs does not make them tombs. It is opinion, not proof. We know they have been used as tombs within even our own times, but we have no conclusive proof that those who built them did so in order to use them as tombs. In company with most other students of the subject, I believe dolmens were built as tombs, but I would not like to be hanged on the basis of evidence I can muster to support my belief. 9"

The clear majority of dolmens contain no bones and speculation no matter how logical, is reckless. Bones found in HD-78 and HD B.B were far from complete. In D 317 the discovery of an incomplete skeleton with disarticulated bones and a skull, was extraordinary.

Until we learn to differentiate types of dolmens and their place among other megalithic structures, their use will remain unknown.

Structural Relationships in Clan Groups

A survey was conducted in the Matabi and Ar-Rawdah fields in 2006, ¹⁰ looking at clusters of dolmens as clan groups. In 2009, a survey was done for the Greater Megalithic Field on the Jordan plain. (S. Collins, *et. al.* 2009). In 2010 and 2011, one undisturbed dolmen, HD-78, and one demi-dolmen HD B.B. were excavated. Each dolmen was prominent in a "Discrete Dolmen Field."¹¹

When standing in one of the many dolmen clusters in the Matabi and Ar-Rawdah fields several factors become conspicuous: 1. Each cluster is situated in its own discrete area, usually divided by a ridge, wadi, or spur of a hill. 2. The cluster has some form of center, with an alignment or standing stone. 3. All clusters have a wide view of the area and the best view seems to coincide with some form of hierarchical order. 4. The view always takes in a location such as, a mountain top, a temple, or the cluster's center. 5. Topography such as, a ridge, slope, spur, hilltop or wadi along with man-made structures form "boundaries" and the "border" of a field¹².

With the recognition of what could arguably be called a city /state at Tall al-Hammam, the two highly organized discrete fields there, exemplified the concept of autonomous clan sites. The two undisturbed Dolmens excavated at Matabi and ar-Rawdah and the village/dolmens at Mutawwaq strengthen the argument for autonomous clan groups. So, the Dolmen Culture Project began¹³.

^{7.} Variations in the design of standard types of dolmen showed that the M. Zohar's 6 types, were no longer sufficient for current studies. 8. "Architectural Component" is a term coined by the Author to define elements of design included in a dolmen

^{9.} J. Swauger 1966, p106.

^{10.} Lucy Clayton, 2006 and 2007, with Hussein Al-jarrah

estimated 15 clan groups.

^{11. &}quot;Discrete Dolmen Field" is a term used to describe a group of dolmens, thought to be a Clan Group with topographical or man-made boundaries.

^{12.} A "border" is the term for the outer reaches of the entire field.

^{13.} Schath et al. 2011

Because of the scale of destruction to dolmen fields throughout Jordan, the discovery of a complete discrete field is urgent.

Conclusion

Finding a dolmen field with an associated sedentary settlement is realistic with the number of dolmen fields un-surveyed using a holistic approach and examining their relationships to megalithic structures.

The religious aspect of the dolmen field at Mutawwaq and Tall al-Hammam are prime examples of the dolmen culture associated with a temple. The organized society with meeting places along with their characteristics of hierarchy speaks not only of clan groups, but also chiefdoms.

The Author theorizes that given a complete dolmen field, without agricultural, urban, or industrial destruction, ensures megalithic structures must be present. A dolmen field crossing a valley, wadi or series of ridges must have several discrete groups. (The field must not be large).

Two area in Jordan stand out as great candidates for the search and discovery of discrete dolmen fields with sedentary autonomous settlements. The first is the Hula Valley just south and east of Lake Tiberius. The second is the Al-Kūra and At-Taybah regions near Irbid.

Further, the identification of architectural components of dolmens with types placed within the megalithic landscape will enable researchers to determine how dolmens were used.

Encroachment of agriculture, industrial and urban development threatens dolmen fields throughout Jordan making it urgent to locate and protect a complete megalithic field. The field must not be large, but rather complete and that field exists. Finding that complete megalithic field with at least two discrete field and conserving it is the goal for Jordan's Cultural Heritage.

Acknowledgements

I want to thank the many Department of Antiquities-Jordan, Archaeologists I have

worked with in dolmen fields. Most important Tiberius Group, for the funding to work among Jordan's ancestral monuments.

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