



Time and Mind

The Journal of Archaeology, Consciousness and Culture

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/rtam20>

Myth written in stone. The submerged monument in the kinneret sea in the light of the ugaritic myth of aqhat

Michael Freikman & Shmuel Marco

To cite this article: Michael Freikman & Shmuel Marco (2021) Myth written in stone. The submerged monument in the kinneret sea in the light of the ugaritic myth of aqhat, *Time and Mind*, 14:2, 327-341, DOI: [10.1080/1751696X.2021.1903176](https://doi.org/10.1080/1751696X.2021.1903176)

To link to this article: <https://doi.org/10.1080/1751696X.2021.1903176>



Published online: 25 Mar 2021.



Submit your article to this journal [↗](#)



Article views: 73



View related articles [↗](#)



View Crossmark data [↗](#)

ARTICLE



Myth written in stone. The submerged monument in the kinneret sea in the light of the ugaritic myth of aqhat

Michael Freikman ^a and Shmuel Marco^b

^aInstitute of Archaeology, Ariel University, Ariel, Israel; ^bDepartment of Geophysics, Tel Aviv University

ABSTRACT

The literary corpus found in Ugarit/Ras Shamra includes some 1500 administrative and religious texts found so far. One of the most famous texts is the myth of Aqhat, who was murdered by an assassin, and whose death was avenged by his family. Many literary and grammatical aspects of this text have been widely discussed during the last decades. They mostly treat it as a purely fictional story, which may not be studied in a real historical or geographical context. However, the mythological motives and imaginary stories of gods and heroes were created by real people, who lived in the real world. They grew up and lived in a physical landscape which must have had a profound influence on their personality and perception of the surrounding world, and it should not surprise us to find traces of this landscape in the mythology. We try to explain these discrepancies and propose the general historical and cultural background for this story and the way the Aqhat myth has roots in landscape of the Lower Galilee and Sea of Galilee.

KEYWORDS

Aqhat; landscape; monument; early bronze; Israel; Galilee see

Introduction. The story of Aqhat: locating the myth

One of the most dramatic stories found among numerous administrative, religious and other texts in the archives of Ugarit is the myth of Aqhat, a real thriller of the Bronze Age period, which holds the reader at the edge of the seat regarding the destiny of its heroes to the very last moment. The identity of one of the main heroes, Dan'el, was studied and discussed by several scholars. This archetypal personage, of divine or semi-divine origin, is of exceptional antiquity already by the time of the edition of book of Ezekiel (for the discussion on the identity of Dan'el see Barton 1941, 223; Day 1980; Margalit 1980 contra Dressler 1979, 1984b). The storyline of the prelude, which will be the main subject of the present discussion, is simple yet dramatic: the life of his long-desired son Aqhat was taken by the mercenary YTPN, hired by furious Anat, who was unable to get Aqhat's magical bow that was given to him by the divine celestial craftsman Kothar-wa-Khasis (probably known in Greek and western culture as Hefestos).

On hearing these terrible news, Dan'el travels from his location 'on the sea' to a certain QRT WRH, which is located on the shore of yet another sea in order to find Aqhat's dead body and give him a proper burial. After accomplishing this mission, he curses the surrounding area and sends his daughter to avenge the death of Aqhat and kill the mercenary YTPN (but not Anat herself).

Although dozens of studies were dedicated to various aspects of the text, the possible historical and archaeological background of the story were overlooked for a long time. The very possibility to identify the places mentioned in this poem was denied, and it was treated as a mere poetical creation of mythical nature (Ginsberg 1945a; Ginsberg 1945b; Parker 1989: 55; Dressler 1984a; Sapin 1983, 172–173). This opinion is based merely on the lack or uncertainty of the geographical and topographical data presented in the text rather than other, more conclusive considerations. However, a general conception that the real *mise-en-scène* for this drama should be searched in the vicinity of the Southern Levant was proposed already in the middle of the 20th century. For instance, Albright (1953, 26–27) proposed that the name Dan'el should be related to Kadesh on Orontes, while Day (1980) searched the origins of the myth in Hermel near Baalbek. Another theory pinpointing quite precise geographical setting hidden behind the numerous location names mentioned in this story was suggested by Margalit (1981a, 1981b). We will cite hereinafter these verses as translated by Parker (1997):

Ybky wyqbr
 Yqbr nn bmdgt bknrt
 wyšu gh wyšh
 knp nšrm b'l yṭbr
 b'l yṭbr diy hmt
 hm t'pn 'l qbr bny
 tšḥṭann bšnth
 qr m[y]/m lk yšm
 ylk m qr mym
 d'lk/mḥš aqht ḡzr
 amd grbt il
 'nt brḥ p'lm h
 'nt pdr dr
 'db uḥry mṭ ydh
 Ymḡ lmrtr tḡll bnr
 Yšu gh wyšh
 Ylk mrrt tḡll bnr
 d'lk mḥš aqht/ḡzr
 šršk bars al/yp'
 riš ḡli bd ns'k
 'nt brḥ p'lmh
 'nt pdr dr

'db uḥry mṭ ydh
 ymḡ lqrt ablm
 ablm/qrt zbl yrḥ
 yṣu gh/wyṣḥ
 ylk qrt ablm
 d'lk mḥṣ aqht ḡzr/
 'wrt yṣtk b'l
 lht/w'lmh
 l'nt pdr dr

He weeps and buries him
 Buries him in MDGT in KNRT
 He raises his voice and cries:
 "Let Baal break the birds wings,
 Let Baal break their pinions
 If they fly over the grave,
 To deprive my son of his sleep."
 He curses QR-MYM ...
 "Woe to you, QR-MYM,
 Near which Aqhat was slain:
 May El clothe you in leprosy
 Now and fleet time for ever,
 Now and all generations."
 He gestures with Fate, his staff.
 He comes to MRRT TGHLL BNR,
 He raises his voice and cries:
 "Woe to you, MRRT TGHLL BNR,
 Near which Aqhat was slain:
 May your root nor sprout in the in the earth,
 Your head droop as you are plucked.
 Now and fleet time for ever,
 Now and all generations."
 He comes to the town of Abiluma,
 Abiluma, town of Prince Yariikh.
 He raises his voice and cries:
 "Woe to you, town of Abiluma,
 Near which Aqhat was slain:
 May Baal strike you blind
 From henceforth and forever,
 From now and through all generations" (After Parker 1997, 74–75).

A number of toponyms mentioned in this excerpt of the myth which demand an explanation were discussed by Margalit (1981b, 136–137):

a. he proposed to interpret 'mr̄rt tḡll bnr' mentioned in the text same as biblical Beth Shemesh of the Galilee identifying it rather as Tel Ubeydiyyeh or

Khirbet Shemsin: Ugaritic root 'NR' bears similar meaning as the Biblical 'šmš' meaning sun, preserved in the Arabic name of the site.

b. much more conspicuous toponym is certainly QRT WRH, which should be associated with Tel Beth Yerah located *circa* 5 km from both of the sites mentioned above. Root 'WRH' meaning 'moon' is still preserved in the modern name of the site. This site had flourished as a large regional administrative center during the Early Bronze age, and could be a source for a collective memory for a location of the residence 'of a prince'. It was abandoned toward the end of the Early Bronze period, but was still known under a variation of this name as late as Roman period.

c. While the identification of Abilum stays unclear, the text makes it clear that this place is located near the other toponyms mentioned in the text in general and near the site of murder in particular. Moreover, it should be regarded as an area which was subject to the city of Beth Yerah (Margalit 1981b). In any case, the location of Abylum appearing in this story is also closely connected to the South-western coast of the Kinneret lake, and should not be identified with other locations bearing this name, such as Abel Beth Maacha.

d. the most interesting verse of this part of the story for the sake of this study is the story of the burial of Aqhat: according to the text, Dan`el has extracted the 'bones and the fat' of his son from the mother of eagles and later on 'KBRT-NN BMDGT BKNKN'. This verse has created different versions regarding the meaning and even reading of both last terms. Virolleaud (1936, 164), Gordon and others (Gordon 1949, 98; Gaster 1966, 364, Dijkstra and De Moor 1975, 208) have proposed to read the last word as 'KNKN', while Gibson (1978, 119) and Herdner (1963, 90) – as 'KNK'. However, Driver (1956) and Barton (1941) have proposed the different interpretation for the last term based on a different reading of the last two letters in this verse and have clearly shown that it should be read as 'KNRT'. This reading was later considerably elaborated by Margalit (1981b, 143–151). Although Dressler has opposed the reading of the word as 'KNRT' claiming that the final 'T' of 'KNRT' should be transliterated as 'H' (Dressler 1984b reading of KNRT), Pitard, who examined the photograph rather than the transliteration, was very conclusive in his analysis and managed to confirm the 'KNRT' reading (Pitard 1994). If so, this reading of the place of the burial of Aqhat matches perfectly the interpretation of the three terms mentioned above and makes one consistent geographic setting for the drama of Aqhat.

e. However, the identification of the exact location of the burial site of Aqhat itself mentioned in the text stays highly controversial and still poses a problem for the text scholars: accepting the interpretation of the text by Pitard, we read that his body was buried in 'QR MYM' in the KNRT, yet it is virtually impossible to imagine one physically burying his son in the depth of the sea, and no kind of marine burial ceremonies is known from the textual or archaeological evidence in the Ancient Near East (e.g., Margalit 1976, 172–173). Thus, scholars have tried to identify the term KNRT with the general area of the lake or specific settlement

located on its shore (Ullendorf 1962, 343), while Margalit himself following Barton proposed to understand KNRT as 'a fishing area' in the immediate vicinity of the lake (Barton 1941, 217; Margalit 1976). He also tried to find the reasons for this unparalleled account of burial-at-sea through the analysis of textual details of the storyline or as a symbol of drought which struck the land (Margalit 1976, 177). Nowadays, with all various opinions regarding the exact identification of specific toponyms mentioned in the text, there is a general agreement among the text scholars that the general geographical setting of the myth of Aqhat should be located in the western slopes of the eastern galilee facing the Sea of Galilee.

In any case, the lack of additional textual evidence in the Ugaritic sources or relevant archaeological finds which could clarify the appearance of the sea burial in the Aqhat epos remained so far unanswered. However, a discovery made during a geological survey of the Galilee sea bottom may enable us to propose a different interpretation of these ambiguous verses of the Ugaritic myth and reveal the historical background of this mythical epos.

Monument found in the depth of the Galilee sea

An underwater conical pile of stones measuring c.70 m in diameter was noted during a geophysical survey at the SW end of the Sea of Galilee (Figures. 1–3, Paz et al. 2013).

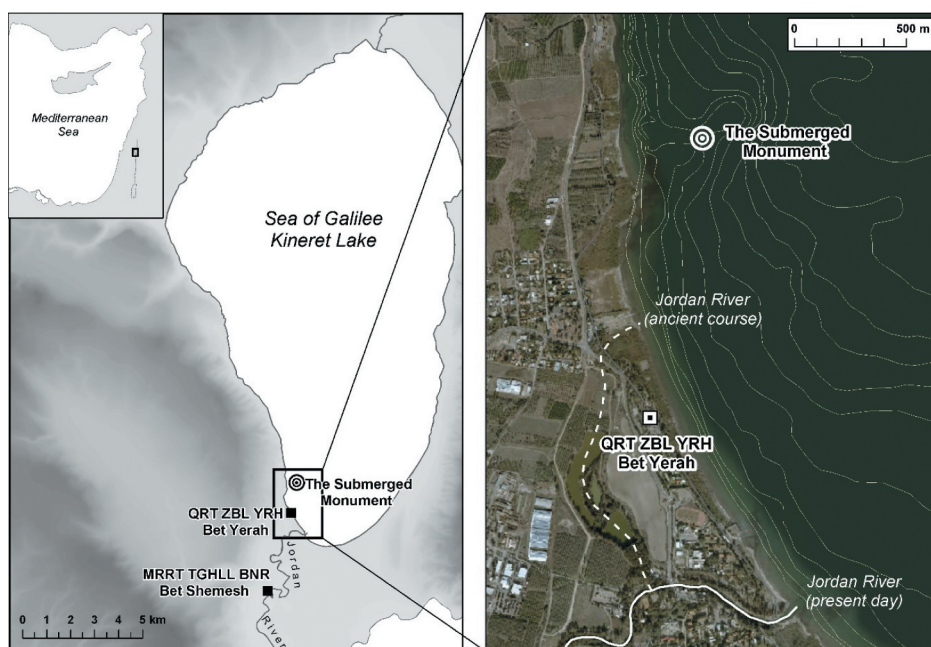


Figure 1. Location of the underwater monument and other sites mentioned in the paper.

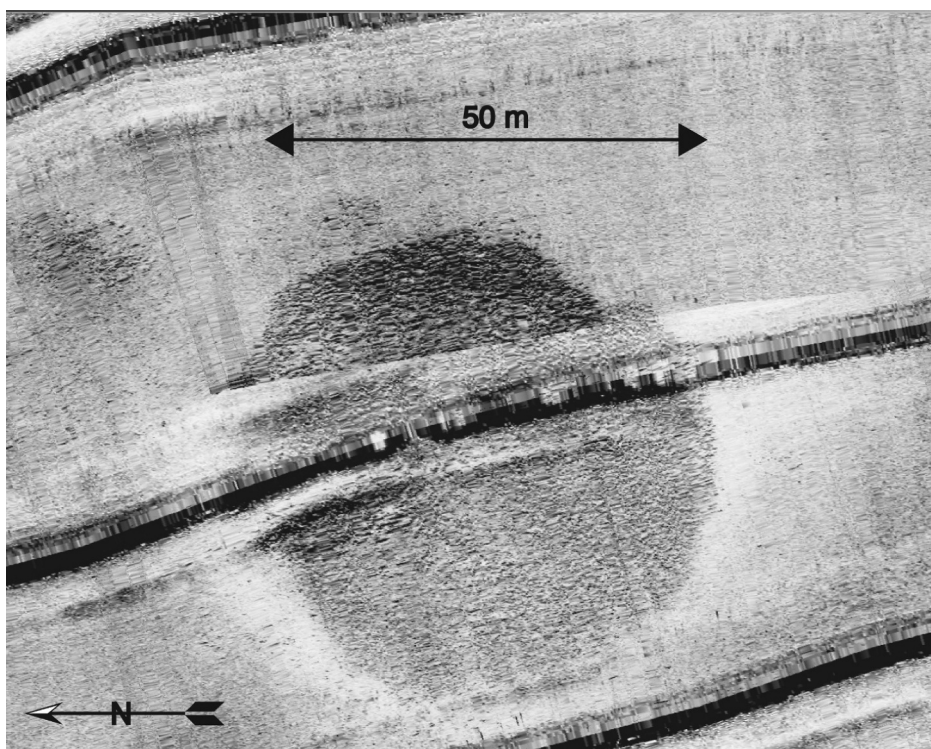


Figure 2. A sonar image of the underwater monument.

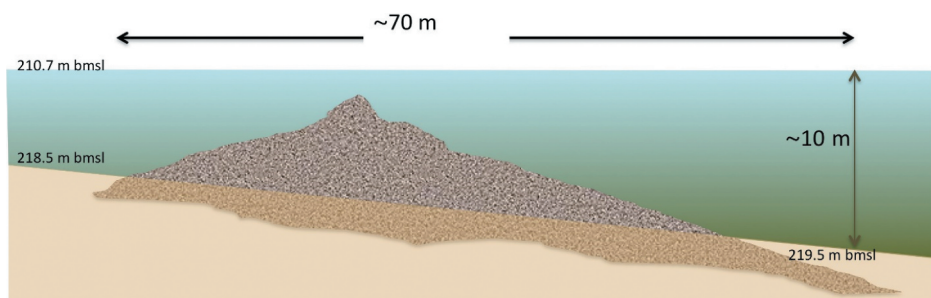


Figure 3. Section of the underwater monument. Note the difference between the nowadays bottom of the lake and the level of the lake bottom at the time of the construction of the monument.

Close inspection by scuba diving revealed that this is a structure which consists of basalt boulders up to 1 m in size with no discernible arrangement or pattern. All the boulders have natural smooth faces, with no signs of cutting or chiseling. Since the shape and composition of the pile of stones does not resemble any natural feature, Paz et al. (2013) conclude that it is a man-made cairn and that the boulders, estimated at c.25,000 m³ and weighing about 60,000 tons, had to be transported at least a few hundreds of meters from the

nearest basalt source in order to be placed in this location. Seismic reflections show that the base of the pile is buried 2–3 m beneath the bottom of the present lake, hence this amount of sand accumulated naturally after its construction. Knowledge of the sediment accumulation rate would provide a rough estimate of the construction time. Although the sedimentation rates vary considerably within the lake, mostly depending on the location relative to tributary streams, we argue that in our study site it ranges between 0.5 mm/yr and 1 mm/yr. Higher rates of 1–4 mm/yr (Koren and Klein 2000) and 5–7 mm/yr (Erel et al. 2001) are typical of areas close to tributaries, such as Yavniel stream located nearby. Rates of the order of 0.05–0.5 were reported from the southeastern part of the lake (Nadel et al. 2001). Based on these geological considerations, the extreme brackets for the construction of the site are 10 ka and 4.5 ka and our best estimate is that the pile construction have taken place between 9 and 4 millennia ago, bit more plausibly closer to the upper limit of this frame (Figure 4).

Discussion and conclusion. The concept of time in archaeology

Monuments make the most conspicuous anthropogenic element of virtually any landscape. However, monuments are defined not only by their scale and architectural complexity but also (and possibly even more) by their exceptional visibility in the landscape. After all, their primary function is to be seen and admired, though not necessarily physically accessed by visitors. Sometimes they are visible from long distances, thus becoming, intentionally or not, a kind of

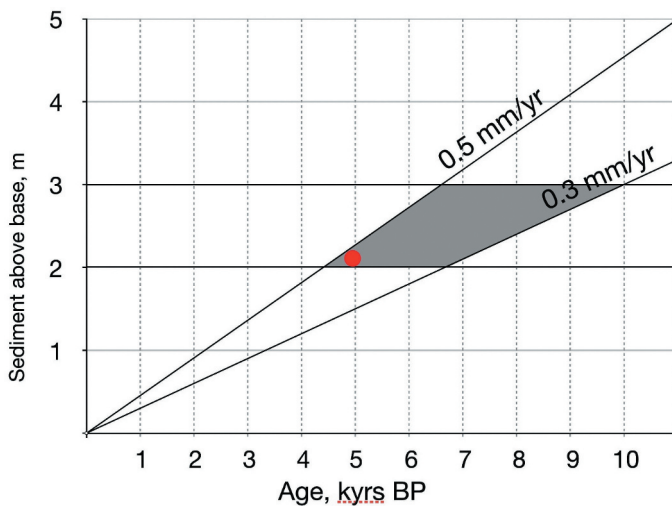


Figure 4. The age of the submerged stone pile is estimated by assuming that its base is covered by 2–3 m-thick sediment layer which had accumulated at rates larger than 0.3 mm/yr and smaller than 0.5 mm/yr. The pile was therefore built between 9 ka and 4 ka. The red dot marks the dating of the monument proposed by the authors.

beacon in the local space. But a monument is more than a highly visible feature. Located in the center of a local landscape, over time it becomes a connecting spot that turns various unrelated spatial features like roads, rivers, and private and public buildings into parts of a single system, like a huge body of which the central monument is the heart (Pollard and Ruggles 2001, 86–87). Understanding the importance of these interrelations between various elements has led to the appearance of a new scholarly discipline: landscape archaeology (David and Thomas 2008; Tilley 1994). The discipline has developed rapidly since the mid-twentieth century, gradually incorporating various theoretical concepts and technical methodologies with special emphasis on the setting of monuments in the landscape. Virtually all possible aspects of this field have been studied and discussed in recent decades. However, one aspect of the study of monuments, in particular in the archaeology of the Southern Levant has been frequently overlooked – the time dimension. In general, an archaeological excavation, just like photography, preserves the last moments in the life of a building, frozen in time. We can draw very few conclusions about other periods of the building's existence by using the classic methodology of archaeological research. Traditional archaeological excavation can tell us very little of the events preceding its construction or the events that took place after its abandonment. However, the study of the landscape setting of a building, and especially of monuments, can help us to retrieve the events that took place in the various stages of time. Monuments are not only immense 'arenas of social power' creating a focal point in space (Chapman 1991), but as such they were by definition junctions in the time dimension too. The very term 'monument,' derived from the Latin verb *manere* (to remain), refers to its most important function. While a monument is built in the present (of a given culture), it is erected in order to commemorate a person or an event from the past, and at the same time to preserve this memory for future generations. In other words, a monument is not only the glue holding together the landscape in space but also a connecting point in time, connecting the past and the present with the future. This aspect of monuments is the most elusive one: one cannot touch time or tag it and put it in a box. Due to its very nature, it is physically absent from the archaeological record. And yet, the importance of time in archaeology in general and the study of landscape in particular cannot be overestimated. The concept of time in archaeology was subjected to a meticulous analysis by Richard Bradley. He elaborated the classification of 'time,' adding two categories, the 'mythological' deep past and the far future, to the past, present, and future (Bradley 2002).

Based on these principles, we may try to reevaluate the meaning of the background of the myth of Aqhat on the one hand, and the function of the cairn found on the bottom of the Galilee seas on the other hand.

The preliminary calculated overall mass of the stones used for the construction of the monument exceeds 60,000 tons. Therefore, this enterprise has

required a remarkable amount of resources and working power for sake of its completion (Renfrew 1973; Freikman and Porat 2017, 17–18). We would expect to find a large settlement with at least certain level of social complexity which could provide manpower and resources. Such settlement is located on the coast of the Kinneret lake only 1 km south of the monument. During the Early Bronze period, Beth Yerah was a large city with structured social organization sufficient to carry out such a large undertaking (Greenberg et al. 2006; Getsov 2006; Greenberg 2014). The Early Bronze strata of Beth Yerah roughly match the preliminary dating of the monument made on the grounds of geomorphological data presented above and reinforces the relation between the two architectural phenomena. On the other hand, the building and maintaining of megalithic monuments of this size and complexity is known in the Golan and also possibly on the northern coast of the Galilee sea (Freikman 2014; Freikman and Porat 2017). Noteworthy, this is the very same Beth Yerah, which was independently identified as 'QRT WRH' mentioned in the myth (see above) by other scholars.

As the cairn of perfect circular shape was erected on the ground which nowadays is placed at a depth of more than 10 mm under the water surface, it seems unlikely that it could have been built in the present climatic conditions and depth of the sea level. It could only have been built in the case of drastic withdrawal of the water to the levels which were not recorded here during the historical periods of time. Location of the epi-paleolithic site of Ohalo located nearby affirms the supposition that such events had happened, possibly more than once. The monument was possibly located on the lake shore at the time of construction and was submerged again very soon after the completion of this project. Another possibility that the place of construction was still submerged, but was shallow enough in order to allow emplacement of the stones brought from the shore by a raft or similar vehicle to their present location. Either way, the definition of the burial of Aqhat 'in the depth of the waters' and 'with the fish' literally fits the location of this monument. Moreover, the existence of the submerged circular monument is an excellent illustration of the proposition of Sapin to see the word 'q`r' as derived from the old Semitic root which means 'digging a well' and even more conspicuous 'to create a circle' (Sapin 1983, 172–173, fn. 71; Cohen 1999, 1202; Jean and Hoftijzer 1965, 263 wall). This possible translation is even more conspicuous in the light of the Judaic oral and written tradition going back to the early 1st Mil. A.D (and possibly even earlier). According to tradition, this was the well mentioned in the Old Testament (Num. 21: 16–18) that had followed the Israelites in their wanderings in the desert, disappeared after reaching the land of Israel, and Jerusalemite Talmud claimed that it was located at the bottom of the Kinneret lake (Masehet Ktubot 67:a). Although its location was mentioned in different parts of the country, it was repeatedly reported as a circular structure visible on the bottom near the western shore of the Galilee Sea. For instance, in the 6th cent. A.D. Rabbi

Tanhuma who was swimming in the lake happened to accidentally find the well of Miriam (Midrash Rabah Vaikrah 22: 4), and in the 16th century Rabbi Ha 'Ari showed Rabbi Vital the location of the well in the depth of the sea 'against the walls of the old synagogue' (Stepansky 2010, 17). The cairn that can definitely be seen from the fishing boats above when the level of the lake was descending could be connected by the myth of the well of Miriam in the Jewish collective memory.

One aspect of the curses casted by Dan'el on the vicinity of the site of the murder of his son is of special interest for this study: after cursing the area he proclaims that from now and on it will remain blind (AWRTM). While this wish remains problematic in the literal understanding of the text when applied to the geographic area, the interpretation of this verse by Margalit may clarify the meaning of it (Margalit 1981b, 138). According to this scholar, we may understand it as a prophesy of the further desiccation of the area of ABYLUM, in this case of the south-western shore of the Kinneret lake and possibly of the Jordan river itself. This interpretation is especially conspicuous in comparison to the nearby Gilboa mountain, condemned by David to drought following the death of Saul and his sons in the very similar way and may be part of the same local traditions which encompass collective memory for droughts which happened from time to time in the area and caused severe damage to the life of the local population (Fenton 1979: 163-164). The physical implication of this assumption in the field would be a drastic lowering of the water of the Kinneret lake and as consequence partial or full desiccation of the Jordan river.

The topographical setting of the submerged monument is very conspicuous in its relation to the ultimate curse of Dan'el. As we remember, he has condemned the land of Abylum to desolation. The river of Jordan is the most important water source in this land, and its wellbeing was certainly most important for the inhabitants of Beth Yerah located on its banks. Nowadays the Jordan river leaves the Kinneret lake south of the tell. However, the course of this river was originally located north of the present location and had passed next to the northern border of the Early Bronze period city. It has gradually dried out in the course of a very long span of time and finally changed its route to the current position in the late 1st Mil. B.C., but the process of the eutrophication and desiccation must have started much earlier during the lifetime of the Early Bronze period Beth Yerah, and possibly had already had an impact of the late inhabitants of this settlement. Therefore, the monument, standing at the immediate vicinity to the place where the Jordan river was fed by the waters of the Kinneret lake can be directly related to the process of desiccation of the stream of the Jordan river, and most possibly its erection was caused by this event as an act of commemoration and/or attempt to reverse this process.

In any case, this process had catastrophic consequences for the inhabitants of the local environment. Indeed, as proposed earlier, the withdrawal of the sea level must have had a devastating effect on the local agricultural and pastoral

activities (Dijkstra 1979, 208), which in its turn was followed by social disorder and may have even have its role in the final ‘voluntary’ abandonment of Beth Yerah (Greenberg 2014, 301). Moreover, the connection between the abandonment of Beth Yerah and construction of the cairn can be even more conspicuous in the larger context of the climatic changes in the late 3th Mil. B.C: geological and archaeological records indicate an extensive desolation and massive abandonment of the urban settlement in the Southern Levant in particular and in vast areas from Mesopotamia to Europe in general during this span of time (Höflmeyer 2017; Bar-Matthews and Ayalon 1997; Weiss 2000). For instance, the withdrawal of the Dead sea in the late 3rd Mil. B.C. (Frumkin et al. 1994) could be caused by the same climatic changes as Lower Galilee.

A monument of vast size was built by the desperate inhabitants of the city in attempt to reverse this devastating process. Although we have no tools to understand the exact mechanism of this ritual, and whether they succeeded or not, after some period of time the Kinneret was back to normal. Long after this happened and the monument has long disappeared under the water surface, the echo of these catastrophic events was still deeply embedded into the local oral tradition and found its place in the local mythology passed from generation to generation.

Therefore, the monument may be regarded as ideas and communal memory embedded into the stone (Scarre 2004, 143). On the lowest, visual level, it might have been intended to mark the place where Dan’el had buried his son, in a fashion very similar to the so-called Yad Avshalom, which was regarded by generations of Jerusalem inhabitants as the memory stone for the rebellious son of king David. As a memory marker, it might have been constructed in order to remind the local people (and possibly Bronze age pilgrims) of the cruel murder of Aqhat, but even more the curse of Dan’el which caused the withdrawal of water and local catastrophe which made possible the erection of this monument at this location.

When the level of the Galilee sea was restored and stabilized on the current level, the monument disappeared from the view of the visitors and its original meaning was forgotten. The connection between the stones and the story was lost, but the oral tradition has survived and found its way to the archives of Ugarit, probably passed from one place to another by generations of story tellers. The story of Aqhat got its own life and lost its connection to its original homeland- the lower Galilee (Table 1). On the other hand, the submerged

Table 1. Chronological table of the events mentioned in the paper.

Event	Time frame
Severe climate changes	Second half of 3 rd Mill. B.C.
Abandonment of Tell Beth Yerah	Circa 2500–2400 B.C.
Proposed date for construction of the cairn	Circa 2500–2400 B.C.
Story of Aqhat	Mid. 2 nd Mil. B.C
Well of Miriam in the Judaic Tradition	1–2 Millennia A.D.

monument became a landscape beacon for a different set of stories drawn from Judaic tradition, probably ignited by the periodical dry events and as consequence withdrawal of the Galilee lake level (Langut, Finkelstein, and Litt 2014) in the course of which its tip became visible to the fishermen passing by the boat nearby, and reached our days as the well of Miriam.

Therefore, the old theory which was proposed to identify the historical events (whatever they are) which served as a background for the myth of murder of Aqhat has recently got a support in two different fields of research: on the one hand, a previously unknown megalithic monument located in the location which fits the description of the sea burial of Aqhat. On the other hand, the paleoclimatic events which must have led to the possibility of the construction of this monument perfectly fit the Margalit's interpretation of the cursed land as desiccated area of Beth Yerah and can serve a possible explanation for the apparently voluntary abandonment of this important site and give an insight to the general process of the total collapse of the urban settlement in the Southern Levant at the end of the Early Bronze period (De Miroschedji 2009). Finally, the preliminary dating based on measuring the levels of alluvial sediment around the monument also confirms the general setting of the whole scene in time. In sum, the combination of the analysis of the landscape environment of the now submerged monument, the geological science and Judaic oral tradition together with the analysis of the Ugaritic text enable us to propose that this cairn found on the bottom of the Galilee sea is striking archaeological evidence of the climatic changes that led to social cataclysm in this area in the final stages of the Early Bronze Age, that were so drastic that they found their way into the local mythology. Although all of the elements of this theory fit the proposed model, it stays a theory, and further extensive field study is required in order to clarify the dating and function of the monument and try to reinforce or reject this theory. In future, we intend to conduct the underwater research including precise mapping and ultrasound scanning of the monument in order to determine whether it conceals a chamber inside, and possibly excavate it.

Acknowledgments

M. Frumin, S. Gorodetsky, L. Whittaker.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Michael Freikman Postdoc researcher in Ariel University. Accomplished Ph.D. in Hebrew University of Jerusalem. Main interests: Megalithic and Landscape Architecture. Archaeology of cult and ritual. Neolithic, Chalcolithic and Early Bronze periods.

Shumel Marco, A professor in the Geophysics Department of Tel Aviv University, Chair of Geodynamics, and Head of the Porter School of the Environment and Earth Sciences. Main research interests include: Temporal and spatial distribution of earthquakes, earthquake effects on rocks and archaeological structures, the evolution of the Dead Sea Fault, and the past behavior of the geomagnetic field.

ORCID

Michael Freikman  <http://orcid.org/0000-0002-8181-6700>

References

- Albright, W. 1953. "The Traditional Home of the Syrian Daniel." *Bulletin of the American Schools of Oriental Research* 130: 26–27. doi:10.2307/3219015.
- Bar-Matthews, M., and A. Ayalon. 1997. "Late Quaternary Paleoclimate in the Eastern Mediterranean Region from Stable Isotope Composition of Speleothems from Soreq Cave, Israel." *Quaternary Research* 47: 155–168. doi:10.1006/qres.1997.1883.
- Barton, G. 1941. "Danel, a pre-Israelite Hero of Galilee." *Journal of Biblical Literature* 60: 213–227. doi:10.2307/3262622.
- Chapman, J. 1991. "The Creation of Social Arenas in the Neolithic and Copper Age of South East Europe: The Case of Varna." In *Sacred and Profane*, edited by P. Garwood, P. Jennings, R. Skeates, and J. Toms, 152–171. Oxbow: Oxford.
- Cohen, D. 1999. *Dictionnaire des racines sémitiques ou attestées dans les langues sémitiques*. Leiden: Peeters.
- David, B., and J. Thomas. 2008. "Landscape Archaeology: Introduction." In *Handbook of Landscape Archaeology*, edited by B. David. and J. Thomas, 27–44. Walnut Creek: Left Coast Press.
- Day, J. 1980. "The Daniel of Ugarit and Ezekiel and the Hero of the Book of Daniel." *Vetus Testamentum* 30: 174–184. doi:10.1163/156853380X00047.
- De Miroschedji, P. 2009. "Rise and Collapse in the Southern Levant in the Early Bronze Age." In *Scienze dell'Antichità Storia Archeologia Antropologia*, 101–129. Vol. 15. Roma: Università degli Studi di Roma "La Sapienza".
- Dijkstra, M. 1979. "Some Reflections on the Legend of Aqhat." *Ugarit Forschungen* 11: 199–210.
- Dijkstra, M., and J. De Moor. 1975. "Problematic Passages in the Legend of Aghatu." *Ugarit Forschungen* 7: 171–220.
- Dressler, H. 1979. "The Identification of the Ugaritic Dnīl with the Daniel of Ezekiel." *Vetus Testamentum* 29: 152–161.
- Dressler, H. 1984a. "Reading and Interpreting the Aqht Text." *Vetus Testamentum* 34: 78–82.
- Dressler, H. 1984b. "The Evidence of the Ugaritic Tablet CTA 19 (KTU 1.19). A Reconsideration of the Kinnereth Hypothesis." *Vetus Testamentum* 216–221.
- Driver, G. 1956. *Canaanite Myths and Legends*. Edinburgh: Clark

- Erel, Y., Y. Dubowski, L. Halicz, J. Erez, and A. Kaufman. 2001. "Lead Concentrations and Isotopic Ratios in the Sediments of the Sea of Galilee." *Environmental Science and Technology* 35 (2): 292–299. doi:[10.1021/es0013172](https://doi.org/10.1021/es0013172).
- Fenton, T. L. 1979. "Comparative Evidence in Textual Study." *Vetus Testamentum* 29: 162–170.
- Freikman, M. 2014. "Megalithic Architecture in the Southern Levant: Case Study of the Golan." Ph.D. dissertation, Hebrew University of Jerusalem, Jerusalem.
- Freikman, M., and N. Porat. 2017. "Rujm El Hiri. The Monument in the Landscape." *Tel Aviv* 44: 14–40. doi:[10.1080/03344355.2017.1280973](https://doi.org/10.1080/03344355.2017.1280973).
- Frumkin, A., I. Carmi, I. Zak, and M. Margaritz. 1994. "Middle Holocene Environmental Change Determined from Salt Caves of Mount Sedom, Israel." In *Late Quaternary Chronology and Paleoclimates of the Eastern Mediterranean*, edited by O. Bar Yosef and R. Kra, 315–332. Tucson: University of Arizona.
- Gaster, T. 1966. *Thespis: Ritual, Myth and Drama in the Ancient Near East*. New York: Harper Torchbooks.
- Getsov, N. 2006. *The Tel Bet Yerah Excavations 1994-1995*. Jerusalem: Israel Antiquities Authority.
- Gibson, J. 1978. *Canaanite Myths and Legends*. Revised Edition of Driver 1956. Edinburgh: Clark.
- Ginsberg, H. 1945a. "The North-Canaanite Myth of Anath and Aqhat I." *Bulletin of the American Schools of Oriental Research* 97: 3–10. doi:[10.2307/1355409](https://doi.org/10.2307/1355409).
- Ginsberg, H. 1945b. "The North-Canaanite Myth of Anath and Aqhat II." *Bulletin of the American Schools of Oriental Research* 98: 15–23. doi:[10.2307/1355245](https://doi.org/10.2307/1355245).
- Gordon, C. 1949. *Ugaritic Literature*. Rome: Pontific Biblical Institute.
- Greenberg, R. 2014. *Beth Yerach. The Early Bronze Age Mound. Volume II. Urban Structure and Material Culture, 1933-1986 Excavations*. Jerusalem: Israel Antiquities Authority.
- Greenberg, R., E. Eisenberg, S. Paz, and Y. Paz. 2006. *Bet Yerah- The Early Bronze Age Mound: Vol. 1- Excavation Reports 1933-1986*. Jerusalem: Israel Antiquities Authority.
- Herdner, A. 1963. *Corpus des Tablettes en cunéiformes alphabétiques, découvertes à Ras Shamra-Ugarit de 1929 à 1939*. Paris: Imprimerie Nationale.
- Höflmeyer, F. 2017. "Introduction: The Late Third Millennium BC in the Ancient near East and Eastern Mediterranean - A Time of Collapse and Transformation." In F. Höflmeyer (ed.). *The Late Third Millennium in the Ancient Near East Chronology, C14, and Climate Change. Papers from the Oriental Institute Seminar The Early/Middle Bronze Age Transition in the Ancient Near East: Chronology, C14, and Climate Change Held at the Oriental Institute of the University of Chicago, 1–31* Chicago: Oriental Institute of University of Chicago, March 7–8, 2014.
- Jean, C., and J. Hoftijzer. 1965. *Dictionnaire des Inscriptions Sémitiques de l'Ouest*. Leiden.
- Koren, N., and M. Klein. 2000. "Rate of Sedimentation in Lake Kinneret, Israel: Spatial and Temporal Variations." *Earth Surface Processes and Landforms* 25: 895–904. doi:[10.1002/1096-9837\(200008\)25:8<895::AID-ESP109>3.0.CO;2-9](https://doi.org/10.1002/1096-9837(200008)25:8<895::AID-ESP109>3.0.CO;2-9).
- Langut, D., I. Finkelstein, and T. Litt. 2014. "Climate and the Late Bronze Collapse: New Evidence from the Southern Levant." *Tel Aviv* 149–175.
- Margalit, B. 1976. "Studia Ugaritica II: Studies in KRT and Aqht." *Ugarit Forschungen* 8: 137–192.
- Margalit, B. 1981a. "John Day and the "Kinnereth Hypothesis"." *Vetus Testamentum* 31: 373–375. doi:[10.1163/156853381X00541](https://doi.org/10.1163/156853381X00541).
- Margalit, B. 1981b. "The Geographical Setting of the AQHT Story and Its Ramifications." In *Ugarit in Retrospective. Fifty Years of Ugarit and Ugaritic*, edited by Y. Gordon, 131–159. Winona Lake: Eisenbrauns.
- Nadel, D., S. Belitzky, E. Boaretto, I. Carmi, J. Heinemeier, E. Werker, and S. Marco. 2001. "New Dates from Submerged Late Pleistocene Sediments in the Southern Sea of Galilee, Israel." *Radiocarbon* 43: 1167–1178. doi:[10.1017/S0033822200038467](https://doi.org/10.1017/S0033822200038467).

- Parker, S. 1989. *The Pre-Biblical Narrative Tradition: Essays on the Ugaritic Poems Keret and Aqhat*. Resources for Biblical Study 24. Atlanta: Scholars Press.
- Parker, S., ed. 1997. *Ugaritic Narrative Poetry*. Atlanta: Scholars Press.
- Paz, Y., R. Moshe, B. A. Zvi, M. Shmuel, G. Tibor, and D. Nadel. 2013. "A Submerged Monumental Structure in the Sea of Galilee, Israel." *International Journal of Nautical Archaeology* 42 (1): 189–193. doi:[10.1111/1095-9270.12005](https://doi.org/10.1111/1095-9270.12005).
- Pitard, W. 1994. "The Reading of KTU 1.19: III:41:The Burial of Aqhat." *Bulletin of the American Schools of Oriental Research* 293: 31–38. doi:[10.2307/1357275](https://doi.org/10.2307/1357275).
- Pollard, J., and C. Ruggles. 2001. "Shifting Perceptions: Spatial Order, Cosmology, and Patterns of Deposition at Stonehenge." *Cambridge Archaeological Journal* 11: 69–90. doi:[10.1017/S095977430100004X](https://doi.org/10.1017/S095977430100004X).
- Renfrew, C. 1973. "Monuments, Mobilization and Social Organization in Neolithic Wessex." In *The Explanation of Culture Change: Models in Prehistory*, edited by C. Renfrew. Pittsburgh: 539–559.
- Sapin, S. 1983. "Quelques Systems Socio-Politiques en Syrie au 2 Millenaire avant J-C. et leur Evolution Historique d'après Documents Religieux (Légends, rituels, sanctuaires)." *Ugarit Forschungen* 15: 170–175.
- Scarre, C. 2004. "Displaying the Stones: The Materiality of 'Megalithic' Monuments." In *Rethinking Materiality. The Engagement of Mind with the Material World*, edited by E. DeMarrais, C. Gosden, and C. Renfrew. Cambridge: McDonald Institute for Archaeological Research.
- Stepansky, Y. 2010. "A Song to the Glorified Tiberias." *Etmol* 213: 14–17.
- Tilley, C. 1994. *A Phenomenology of Landscape*. Oxford: Berg.
- Ullendorf, E. 1962. "Ugaritic Marginalia II." *Journal of Semitic Studies* 7: 339–351. doi:[10.1093/jss/7.2.339](https://doi.org/10.1093/jss/7.2.339).
- Virolleaud, C. 1936. *Le Légende Phénicienne de Danel*. Mission de Ras Shamra I. Paris: Guethner.
- Weiss, H. 2000. "Beyond the Younger Dryas. Collapse as Adaptation to Abrupt Climate Change in Ancient West Asia and the Eastern Mediterranean." In *Environmental Disaster and the Archaeology of Human Response*, edited by G. Bawden and R. Reyecraft, 75–98. Albuquerque: Maxwell Institute of Archaeology.