

Dahlak Kebir, Eritrea: From Aksumite to Ottoman.

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Abstract. A preliminary reconnaissance visit was recently made to the site of Dahlak Kebir in the Dahlak Islands, Eritrea. The archaeological remains which were recorded attested to the importance of the Dahlak Islands which appeared in historical annals around 100 B. C., and functioned as major entrepot of Red Sea trade and a staging point between Africa and Arabia during both Aksumite and Islamic periods. Various features were noted including tombs and cemeteries (both were previously investigated by other researchers), settlement areas comprising both settlement mounds and remains of a stone town, what appeared to be a harbour area, and numerous cisterns and tanks for storing water. Much of the surface area of the site was rife with archaeological material such as glass and stone beads, glass vessel and bracelet fragments, unglazed pottery of probable local manufacture, and Chinese and Islamic glazed pottery, tentatively dated to the medieval period (twelfth-fifteenth centuries A. D.). The visit to Dahlak Kebir allowed a number of preliminary observations about the site and its role in Red Sea trade. Of prime importance was the indisputable link between the growth of Dahlak Kebir and trade which was both local and international in focus. The potential for further archaeological research on this important site is thus indicated. After all, the site is a key location in reconstructing the mechanisms of Red Sea trade over time.

Introduction

This paper outlines the results obtained during a brief exploratory visit recently made to the Dahlak Islands, Eritrea, to assess the feasiblity of conducting a long term co-opertive archaeological research project at the site of Dahlak Kebir. The country's present lack of full antiquities legislation (and consequently the absence of a formal research permit) has influenced the amount of work that could have actually been achieved. Nevertheless, these factors have not been disarming within the scope of this mission because it is observatory in nature, and for which a letter of introduction (obtained from the National Museum in Asmara) has been enough. In fact, the achieved results unexpectedly exceeded the original anticipations. All things considered, however, this paper should be regarded as a working note only.

Contemporary Situation.

The site of Dahlak Kebir is located on the Island bearing the same name, and is one of 209 islands which collectively form the Dak-

Issue No. 3 January 2001 ISSN: 1319-8947 (pp 39 - 50) lak Archipelago (Paice 1996: 106; Figure 1). Dahlak Kebir is the largest island (760 km²). Rainfall is low; temperature is extreme, reaching up to 48° Celsius during the months of summer (June - September). Consequently, vegetation on the island is sparse; where found, it is composed mainly of doum palm and acacia scrub. However, birdlife is abundant, and gazelle are still present.

The current inhabitants who live within the vicinity of the archaeological site of Dahlak Kebir are divided into two groups. In the upper village live the self-named Dahlak Afar. These number approximately 170 persons who, for their living, depend mainly on fishing and pastoralism. In the lower village, actually built amidst the ruins of the stone town and surrounded by settlement mounds, live the Dahlakin, who are described as the mixed people of the Islands, an amalgam of Arabs, Afars, and Persians (Idris Usman pers. comm.). This definition is broadly in accord with Tedeschi's (1969: 49) description of the Islands inhabitants as Muslims, Arab in origin, who speak a Tigre dialect. Over the centuries, trade ob-



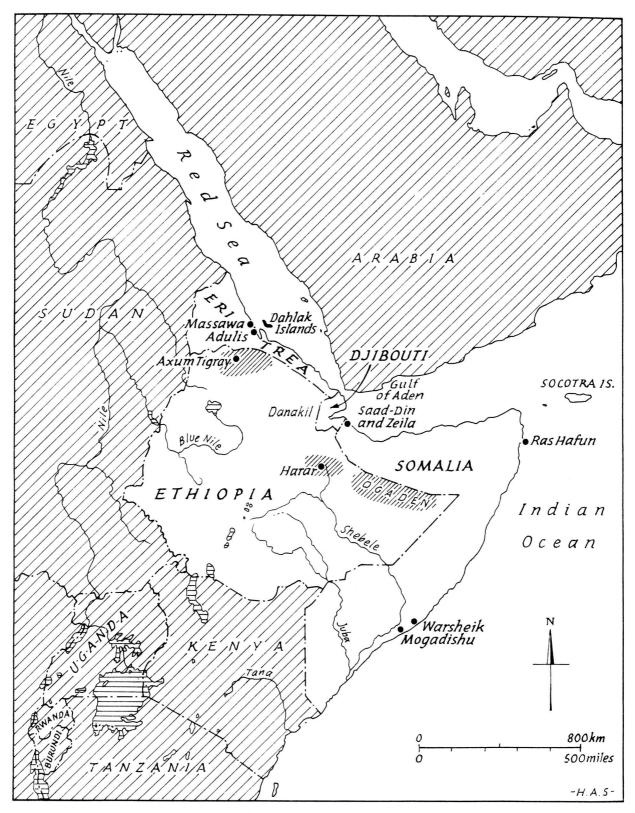


Fig. 1: The location fo the Dahlak Islands.



viously has led to a great intermingling of peoples within the Islands analogous in a way to the processes which have created the Swahili culture of the Eastern African coast (see for example Allen 1993, Chami 1998). The Dahlakin likewise live on fishing and limited pastoralism. Formerly, pearl diving was of importance, but recent artificial cultivation of pearls, predominantly in Japan, has made the old activity unviable economically (Idris Usman pers. comm.).

The Eritrean government is keen on developing the economy and amenities on the Islands. The development of the archaeological site at Dahlak Kebir, as a tourist attraction, is one possibility under consideration. This will certainly be appreciated by the local population as a possible source of income and as a mechanism for ensuring the future survival of the monuments.

Historical Sources. The history of Dahlak Kebir testifies to its importance as a trade centre, and we are fortunate that many of the historical sources are analysed by Tedeschi (1969), whose work is drawn upon here. In this respect it is also important to record that in so far as this paper is a working note, only a summary introduction to the historical sources can be provided. Readers interested in the original sources are here referred to Tedeschi (*Ibid*) and Bassat (1913).

Beginning in 100 B.C. the Dahlak Islands appear in historical sources, when Artemidorus refers to Elaia (apparently to be identified with Dahlak Kebir) as perhaps the "Alalaios" of the Periplus of the Erythraean Sea, an anonymous Greek source probably written in the first century A.D. The Alalaios of the Periplus is recorded as a source of tortoiseshell (Tedeschi 1969: 50). Various other classical allusions exist, and it is known that between the third-sixth centuries A.D. the islands are controlled by the Aksumite kingdom (see Munro-Hay 1982). Following the decline of Aksum in late sixth seventh centuries the islands become a centre of piracy, a fact which has direct implications for their Islamisation. The Dahlaks role as a pirate base hampered the trade of the early Muslim state; in 702-3, for example, "Abyssinian" pirates were recorded as having attacked Jeddah (Tedeschi 1969: 25). For this aggressive action, the Dahlaks were occupied in the early eighth century by Muslim naval forces led by Sulayman b. 'Abd al-Malik (Munro-Hay 1982: 121). Subsequently, Dahlak Kebir became a place of exile known as "the Island of Thorns" (Tedeschi 1969: 52).

Thus Islam and Dahlak Kebir were linked since that date, and for the next three centuries the importance of Dahlak Kebir as the Muslim bridgehead into Ethiopia had increased and also remained, for a while, tributary to the King of Zabid in Yemen. By the end of the eleventh century, it was a fully independent Sultanate of great prosperity, and was referred to as a frontier zone of Islam (according to the testimony of the funerary epigraphy). This polity lasted some time; Maqrizi, writing in the fifteenth century for example, recorded that in 1393 "the Egyptian Sultan received from the sovereign of the Dahlaks several elephants" (Ibid: 60). By the late fifteenth century, the power of Ethiopia was resurrected, and the sultanate of Dahlak again took on a tributary status, this time to Ethiopia. The last known mention of a Sultan of Dahlak occured in 1541 A.D. in connection with a Potuguese raid on the Island. In A. D. 1557 the Dahlaks and the mainland port of Massawa were occupied by the Turks. The region very much assumed the character of a province of secondary status to the Ottomans, and Dahlak Kebir gradually declined in importance. By the late eighteenth century, when visited by James Bruce, the island was described as home to twelve villages of miserable huts. The more recent situation has already been described.

The Archaeological Site

The remains at Dahlak Kebir village rep-



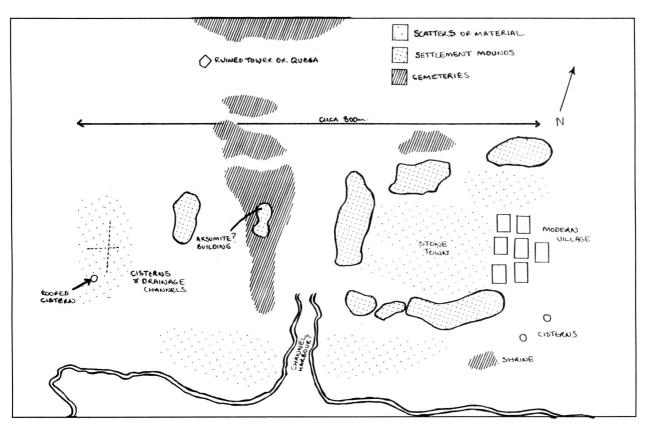


Fig. 2: Sketch-plan of the site.

resent a complete town site made up of a number of different elements, including cemeteries, a multi-period settlement, extensive cisterns and water collection systems, and what appears to be a port area (Figure 2).

Cemeteries and Tombs. The cemeteries have been examined in some detail by various scholars (Bassat 1893, Wiet 1951, Schneider 1969, Oman 1974, Insoll 1996). Of primary attraction are the over 200 Arabic funerary inscriptions on basalt, incised or carved in relief in both Naskhi and Kufic script. These date from between 911-1539 (Oman 1974). The inscriptions have provided information on the Sultanate of Dahlak, as, for example, by a reference on a stele (dated to 1093) to a Sultan al-Mubarak, apparently the name of a sovereign of the Dahlaks in the late eleventh century (Tedeschi 1969: 63). One individual has even been commemorated by four stelae, "a case unique in the epigraphy of Dahlak Kebir and also in Islamic epigraphy" (Oman 1974: 259). As this material has already been wellstudied (*Ibid*), no attempt is made to further record the funerary inscriptions.

Besides the inscribed Muslim gravestones, which have been somewhat dispersed over the years, numerous other Muslim tombs have been noted. These are to be found in the cemeteries situated to the north of the settlement area. Standing Qubba tombs have been photographed in the recent past (see, for example, Puglisi 1969; Fig. 8), but these have partially collapsed over the course of the last three decades, and will probably continue to deteriorate. Thorough mapping of the cemetery area needs to be undertaken, and an inventory needs to be made of what still exists, to supplement the partial corpus provided by Oman (1974). The importance of the cemeteries need not be overemphasised; they represent the evolution of Muslim funerary monuments over the course of several centuries, possibly from the first century A.H. Moreover, they



also attest to the large population which formerly inhabited the site as well as to the racial variety and admixture in the Islands, referred to previously.

Several of these tombs also continue today to be of religious significance to the local population; these tombs seem to belong to prominent religious figures or saints (Wali, pl. Auliya) where various rituals are carried out. This is indicated, for example, by a structure, which is recorded, situated to the southeast of the site complex, on a small mound within a cemetery. At this structure-a small tomb-- numerous pieces of rags have been tied to the remains of the tomb and to a black basalt column. The latter feature appears to have been deliberately moved, and incorporated at a later date within the building, for otherwise it does not fit structurally. Scattered around this tomb/shrine are many fragments of incense burners in coarse reddish-brown clay, indicating that other offerings are made here. These are also practices mirrored on the close Eritrean mainland, or rather immediately offshore on Sheikh Sa'id (Green Island) near Massawa. Here, the remains of another saint's tomb are recorded in which are found the remains of incense burners and offerings, including a sacrificed desiccated sheep, all concentrated within the mihrab (Insoll 1999). The function of these offerings is not certain, but obtaining blessings for safety in trading and fishing expeditions is a major factor underlying these ritual practices (C. Hillman pers. comm.). The importance of both shrines and the Cult of Saints seems a significant feature throughout this rigion (Lewis 1994).

The Port Area. For a major trading centre, the existence of a port is expected, and the bay certainly offers sheltered anchorage, and is utilised today by the local fishermen for this reason, as many timber huts on the waterline testify. A former port area appears to be represented by a zone of reasonably flat ground running down to the sea from the settlement area. This zone is partially submerged at high tide (Figure 2). The whole of the surface of the possible port area is liberally riddled with archaeological material: beads, imported and locally produced pottery, glass and various types of more modern debris (see below). It is suggested that, depending upon the tide, vessels are brought up to this area to unload, and that the collected surface-material is the remains of rubbish and, more importantly, of breakages of goods whilst off-loading. This hypothesis appears to be supported by the existence of a channel, cutting through the area of the flat ground just described. This, it can be further suggested, might also be relating to a former harbour facility as an artificial creek or channel used for mooring and unloading vessels. Alternatively, it might be wholly natural in origin.

The Settlement. The settlement area is composed of the occupation debris over several centuries, comprising both an extensive area of coral houses and also various settlement mounds (Figure 2). Without excavation, it will not be known whether the different areas of the settlement represent different phases of occupation (with, for example, the mud houses, which have melted to form the mounds, being abandoned whilst the coral houses occupied). It is apparent



Fig. 3: Block of carved coral from the stone-town (Photo T. Insoll).



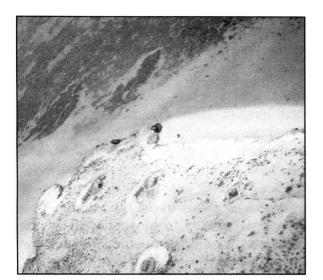


Fig. 4: View of cisterns from the air (Photo courtesy Dr. Chris Hillman.

that the coral-built town forms a separate physical entity within a ring of mounds. The total settlement area could be even larger if one considers the probable existence of more ephemeral "suburbs" of impermanently built huts as well as possible areas for confining large numbers of slaves, features which are by their nature less archaeologically visible.

The standing houses themselves are wellbuilt out of coral, the pieces of which are elaborately carved (Figure 3). Some buildings are better preserved than others, and it is possible, but as yet unproven, that many are associated with the Turkish period of control of the Island. In 1673 A. D, when the village of Dahlak Kebir was visited by the Turk Evliya Celibi, it had 600 houses, some of stone, others of mud and thatch, and each with a cistern (Tedeschi 1969: 71-2). The settlement mounds, four large and several small, do not merit further description other than to note that they can reach up to 4 meters in height and are again rife with archaeological material.

Cisterns and Water Collection Systems.

The remains of the water collection systems, along with the cemeteries have been reasonably well-reported, partly as a result of their number, but mainly as a result of their superb construction. One tradition relates that there has been one cistern for every day of the year; even more if the Turkish visitor, Celibi, is to be believed. Numerous cisterns have been found; it seemed pointless at present to record these individually. Their ubiquity is well indicated by aerial photographs (Figure 4).

The cisterns vary in their state of preservation, ranging from a couple of examples recently renovated to others only their mouths are visible, but otherwise are filled with sand, it will be seen that they are lined with plaster, obviously watertight, and that columns are used to support the roof. No one structural techniqus is uniformly employed, many styles are evident, which in itself deserves further investigation. Local traassociates dition also the cistern construction with the Farsi or Persians (Puglisi 1969). This seems a reasonable attribution considering the history of Persian contacts with the area and the well-known Persian Qanat, a similar form of waterstorage technology (see for example Cressey 1958, Goblot 1979). In summary, this water storage and collection technology provide further possible indications of trading links with, or connections of some sort directed to, the Persian Gulf.

The existence of so many cisterns, often with rock cut channels to allow maximum catchment of water, implies a sizeable population. This, however, need not have been wholly permanent, but could have been supplemental, owing perhaps to a transient slave population (Puglisi 1969: 43-5). Similar cisterns, though in much smaller numbers, have been reported from elsewhere on the Red Sea, at Er-rih and Aidhab in the Sudan and at Massawa in Eritrea (Puglisi 1969; Crowfoot 1911; Paul 1955; Insoll 1996). Today water is collected from wells by the population of the village at Dahlak Kebir; the cisterns, except for one instance, appear to be no longer in use. This is surDahlak Kebir, Eritrea: From Aksumite to Ottoman.



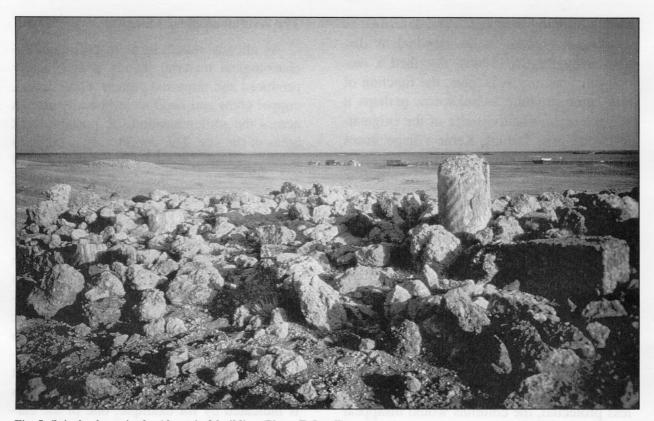


Fig. 5: Spiral column in the Aksumite? building (Photo T. Insoll).

prising considering the paucity of water on the Dahlak Islands and the obvious suitability of the cisterns for water storage.

Miscellany: A further monument which is less easy to place within a specific category is also recorded. This cosists of the remains of a well-built structure situated on top of a small mound, surrounded by a cemetery to the west of the site complex. In its location, it is therefore similar in certain respets to the tomb mentioned previously. Of especial interest is the use within this structure of a spiral carved marble column. The use of such columns is not recorded elsewhere at Dahlak Kebir though another solitary example is found lying on the surface nearby. This obviously has once formed part of the same building (Figure 5). Puglisi (1969: 38) also records the existence of this building as "a Christian church with Syrian influence", and relegates its date to the fourth-fifth centuries A.D. It is described as being composed of a podium, with several arches and an access

staircase. Puglisi also describes the fragment of the marble column, and from his proposed date it appears that this is an Aksumite structure. The use of marble components within Aksumite churches is described by Munro-Hay (1989: 46-8) at Adulis on the Eritrean mainland (see also Paribeni 1907). However, the columns described, which are "almost square" (Munro-Hay 1989: 49), or alternatively octagonal, appear different from the examples from Dahlak Kebir. Interestingly, it also seems that some of the church fragments from Adulis "including screen posts and columns ... were manufactured from local marbles in Asia Minor, and were sent out from there prefabricated to be assembled at their destination" (Munro-Hay 1989: 50). This raises the interesting question of whether the Dhalak Kebir fragments also be of Eastern Mediterranean origin.

Aksumite ruins have been reported from elsewhere in Dahlak Kebir Island. At Gim'hile in the northeast corner of the Is-



land, a building is recorded and described as a "Persian church," a thesis which is dismissed by Puglisi (1969). Ascribed a second-third century A.D. date, the function of this latter structure is unknown; perhaps it was a temple. The existence of the enigmatic building in Dahlak Kebir village raises many interesting questions. If it is indeed a Christian church, who would have used it? The only reasonable answer to this is that part of the community was formerly Christian. This is perhaps not too inconceivable considering the island's proximity to Ethiopia with its predominantly highland Orthodox Christian tradition. Alternatively the church could have been reused in another form. However, at the present, this remains mere speculation. The important point to stress is that this building merits further investigation, and it is quite possible that, unless protected, the columns would disappear as portable souvenirs, once the islands become more accessible.

The Archaeological Material

As already stated, large quantities of archaeological material (beads, glass, locally produced and imported pottery, coral debris, copper coins and slag) were liberally strewn across the settlement and the possibly port areas of the site. The opportunity is taken to briefly examine some of this material, all are surface finds without context, and none are removed.

Beads. Large quantities of beads and, more importantly, bead manufacturing debris are found. These include small yellow and blue glass barrels, a small shell bicone, fragments of faceted bicones in what appears to be carnelian, an amber? sphere, and a pierced disc of mother of pearl (Figure 6). The latter is the only possible evidence found for the earlier importance of pearling. It is evident that bead manufacturing was taking place. This is indicated by for example, one of the carnelian bicones which seems to have been discarded when shattered whilst being



Fig. 6: Bead debris and glass fragments (Photo T. Insoll).

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Fig. 7: Chinese celadons (Photo T. Insoll).

drilled, clearly showing that the drilled holes did not meet. Various misshapen glass beads and the contents of two crucibles used for melting glass (one blue, one black) are also found. These are too small to have been used for making glass vessels, and seem to have been similarly used for glass bead manufacture.

Glass: Many fragments of glass bracelet are found, and ten different types are recorded. Some are monochrome, others are multicoloured, and of types recorded elsewhere on the Red Sea. Comparable assemblages include those from Aden, a major centre of production, and Quseir al-Qadim in Egypt, where they are dated predominantly to the thirteenth-fourteenth centuries (Whitcomb 1983). One large, cut glass pink bottle fragment is found, of very good quality and of unknown date (for similar material, see Insoll 1998).

Pottery: No attention has been paid to unglazed wares because of the brevity of the visit and of the inability to remove any material for further analysis. Moreover, the large-scale absence of comparable material (but see Cuik and Keall 1996), at least from the African side of the Red Sea, has further complicated the analysis of the unglazed pottery. It is recognised that this is a major omission which needs rectifying by future research projects. However, glazed-wares are briefly looked at as possible sources of information on long-distance trade contacts and as a potential dating aid, being somewhat more easily identifiable in the short time space available. Various categories of imported ceramics are found. However, it should be noted that these have yet to be examined in any great detail, and any identifications remain at present provisional and extremely tentative in nature.

Both Chinese (Far Eastern) and Islamic wares are represented; the former include large quantities of blue and white, thus later in date (post sixteenth century?). Four sherds of celadon are also found (Figure 7), and six sherds of whiteware are noted, two with a definite bluish tinge to the glaze (Qingbai or Ying-Ching?), very similar to pieces examined previously by this author from Pemba and Zanzibar Islands on the coast of Eastern Africa (Insoll in press). Similar wares have also been reported from Aidhab on the coast of the Sudan (Lane 1947: 31). These are perhaps of twelfththirteenth century date, but this is not certain. One large sherd of brown and olive glazed ware, perhaps Dusun ware, and a single black glazed sherd (outer surface only) are also recorded.

The Islamic wares include two pieces of Sgraffiato ware, with characteristic orangebrown fabric with green glaze; a similar fragment of tile is also noted. No sherds of Sasanian or Sasanian-Islamic wares are recorded, a surprising fact considering the probable Persian connection and Sassanid control of South Arabia from A.D. 575 until the Muslim conquest (Tedeschi 1969: 51-2). Similarly, the presence of Arabian wares, and more specifically those from the "Persian Gulf," at Aksum (Phillipson 1998:67) makes their lack in Dahlak Kebir the more surprising. However, this author does not claim to be specialist in this material, and thus it is possible that such wares are present.

Metals and Miscellany: Various pieces of iron slag are seen, along with three copper coins --one with an Arabic inscription (not read) -- a piece of a small copper dish and a fragment of impressed/hammered copper are also noted. Many fragments of coral are seen scattered throughout the surface of the site, perhaps the residue of jewellery manufacture.

Summary and Conclusions

The importance of Dahlak Kebir, described in the historical sources, is supported by the archaeological evidence. However, few conclusions can at this stage be



drawn, though a number of preliminary observations can be made. Firstly, the correlation between the growth of Dahlak Kebir since the Aksumite period and trade is indisputable. Trade is evident on inter-regional scales (i.e., with Ethiopia and across the Red Sea with Arabia), and also on a much greater scale, with Dahlak Kebir tied to the Indian Ocean and Persian Gulf networks, as well as northward up the Red Sea, perhaps to the Mediterranean World. Slaves probably make up a major commodity of this trade, sourced from the interior, shipped to Dahlak Kebir, and then traded onward. Puglisi (1969) suggests that 3000-4000 slaves pass through Dahlak Kebir each year. A sizable transient slave population en-route from the African mainland would certainly justify the excess cistern capacity which has been noted previously. Other commodities which could have been involved in this trade include ivory, skins and fragrant woods, in addition to foodstuff coming from the African mainland and luxury and manufactured goods from long-distance trade. Futhermore, Dahlak Kebir appears to have been a manufacturing centre, possibly producing various items for trade with the interior; a fact attested to by, for instance, the bead manufacturing debris.

A further important and evident point pertains to the Red Sea; rather than being a physical barrier, it seems to have been a means of communication. In fact, connections with the Arabian shore of the Red Sea have often been as strong as those with the African mainland. However, the historical legacy intimately ties the Dahlak Islands to Eritrea. Thus, perhaps much as the Swahili of the Eastern African coast can be described as Indian Ocean in origin, the Dahlak can be seen as a similar product of trade and other contacts conducted over many centuries in the Red Sea region. The longstanding connection between Islam and the population of Dahlak Kebir can also be seen to be significant, with contacts dating almost



from the very beginnings of the religion itself. Significantly enough, Dahlak Kebir was defined very early as being in the *Dar al-Islam*, attesting to the degree of its evident Islamisation. In conclusion, although only a very preliminary reconnaissance has been completed, the potential and importance of the site of Dahlak Kebir merit more efforts. It is hoped that others will take up the challenge of further investigating Dahlak Kebir and the Dahlak Islands.

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ملخّص: ان بقايا الأثار التي سجلت أثناء زيارة الاستطلاع الأولى لموقع دهلك كبير في جزر دهلك بأرتيريا تؤكد أهمية جزر دهلك التي ظهرت في السجلات التاريخية حوالي ١٠٠ قبل الميلاد. والتي كانت مدخلاً رئيساً لتجارة البحر الأحمر كما كانت محطة وصل بين أفريقيا والجزيرة العربية خلال الحقبة الأكسومية والحقبة الإسلامية. وفي هذه الزيارة تمت ملاحظة وتدوين مظاهر مختلفة منها : قبور ومقابر (سبق أن درسها باحثون آخرون). مناطق وخزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية. وشذرات وخزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية. وشذرات وخزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية. وشذرات وفزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية. وشذرات وفزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية، وشذرات وفزانات مياه. وغالبية سطح الموقع تزخر بالمواد الأثارية مثل الخرز الزجاجي والصخري. والأوعية الزجاجية والإسلامية وفرانات مياه. وغالبية سطح الموقع تزخر المية على مايبدو. إضافة إلى الفخار المزجج ذي الأصول الصينية والإسلامية وفرانات مياه. وغالبية الزجج المتنوع محلياً على مايبدو. إضافة إلى الفخار المزجج ذي الأصول الصينية والإسلامية وقد أفضت زيارة جزر دهلك إلى عدة ملاحظات أولية حول الموقع ودوره في تجارة البحر الأحمر. ومن أهمها الرابطة الذي يعود (حسب النظرة الأولية) إلى حقبة القرون الوسطى (من القرن الثاني عشر الى القرن الخامس عشر). وقد أفضت زيارة جزر دهلك إلى عدة ملاحظات أولية حول الموقع ودوره في تجارة البحر الأحمر. ومن أهمها الرابطة الأكيدة بين نمو دهلك كبير وتطور التجارة التي كانت تجارة محلية ودولية. وهذه الحقيقة تؤكد أهلية هذا الموقع الهم لبحث آثاري معمق. فالوقع مفتاح أساس في اعادة هيكلة آليات تجارة البحر الأحمر عبر العصور.

References

Allen, J. De V. 1993. Swahili Origins. James Currey. London.

Bassat, R. 1893. "Les Inscriptions de L'Ile de Dahlak," **Journal Asiatique** 9: 77-111.

Bassat, R. 1913. "Dahlak" Encyclopedia of Islam, 1: 893.

Chami, F. 1998. "A Review of Swahili Archaeology" **African Archaeological Review**, 15: 199-218.



Ciuk, C. and Keall, E. 1996. Zabid Project Pottery Manual 1995. Pre-Islamic and Islamic Ceramics from the Zabid Area, North Yemen. BRA S655. British Archaeological Reports, Oxford

Cressey, G. B. 1958. "Qanats, Karez, and Foggaras," **The Geographical Review**, 48: 27-44.

Crowfoot, J.W. 1911. "Some Red Sea Ports in the Anglo-Egyptian Sudan", **Geographical Journal** 37: 523-50.

Goblot, H. 1979. Les Qanats: Une Technique d'Acquisition de l'Eau. Mouton. Paris.

Insoll, T. In Press. "An Analysis of the Chinese pottery from the Settlements of Mtambwe Mkuu and Ras Mkumbuu on Pemba Island, and Tumbatu and Mkokotoni on Zanzibar Island," In: M. Horton, (ed.), **The Zanzibar and Pemba Excavations**. British Institute in Eastern Africa, Nairobi

Insoll, T. 1996. "The Archaeology of Islam in sub-Saharan Africa: A Review", **Journal of World Prehistory** 10: 439-504.

Insoll, T. 1998. "Islamic Glass from Gao, Mali" Journal of Glass Studies 40: 77-88.

Insoll, T. 1999. **The Archaeology of Islam.** Blackwells, Oxford

Lane, A. 1947. Early Islamic Pottery, Mesopotamia, Egypt and Persia. Faber and Faber. London.

Lewis, I. M. 1994. (repr.). **Peoples of the Horn of Africa**. Red Sea Press. Asmara.

Munro-Hay, S. 1982. "The Foreign Trade of the Aksumite Port of Adulis" **Azania**, 17: 107-25.

Munro-Hay, S. 1989. "The British Museum Ex-

cavations at Adulis" 1868. Antiquaries Journal, 69: 43-52.

Oman, G. 1974. "The Islamic Necropolis of Dahlak Kebir in the Red Sea. Report on a Preliminary Survey Carried out in April 1972", **East and West** 24: 249-95.

Paice, E. 1996. **Guide to Eritrea**, Chalfont St Peter: Bradt.

Paribeni, R. 1907. "Richerche nel Luogo dell'Antica Adulis" **Monumenti Antichi, Reale Accademia del Lincei,** 18: 438-572.

Paul, A. 1955. "Aidhab: A Medieval Red Sea Port" **Sudan Notes and Records,** 36: 64-70.

Phillipson, D. 1998. Ancient Ethiopia. British Museum. London.

Puglisi, G. 1969. "Alcuni Vestigi Dell'Isola di Dahlac Chebir e la Leggenda dei Furs", **Proceedings of the Third International Conference of Ethiopian Studies.** Institute of Ethiopian Studies, pp. 35-47. Addis Ababa.

Schneider, M. 1969. "Steles Funeraires de la Region de Harar et Dahlak (Ethiopie)" **REI**, 37: 339-43.

Tedeschi, S. 1969. "Note Storiche Sulle Isole Dahlak", **Proceedings of the Third International Conference of Ethiopian Studies**. Institute of Ethiopian Studies, pp. 49-74. Addis Ababa

Whitcomb, D. 1983. "Islamic Glass from Al-Qadim Egypt," **Journal of Glass Studies** 25: 101-108.

Wiet, G. 1951. "Roitelets de Dahlak," **Bulletin** d'Institut de l'Egypte 34: 89-95.