THE POTENTIAL OF ANCIENT SITES IN THE EILAT REGION FOR CULTURAL TOURISM

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INTRODUCTION

The Eilat region is arbitrarily defined here as the southern tip of modern Israel, from the Gulf Of Eilat (Gulf of Aqaba) to the Shizafon road-junction, 55 km to the north. The area is hyper-arid, with an annual average rainfall of only 15 mm,\(^2\) an annual potential evaporation rate of 4000 mm, and summer mid-day temperatures of 40ºC or higher. As a result, perennial water sources are rare, the vegetation is restricted to the wadi beds, and the carrying capacity for animal and man is low. Nevertheless, there is abundant life in the desert today, as there was in the past, including human societies. The region’s landscape varies and changes abruptly, with mountains up to 892 m above sea level, broad valleys, cliffs and canyons, the deep Arava Valley and the Gulf shores. The lithology is diverse and colorful, with igneous and metamorphic rocks, sandstones, and limestones.

Today, the rich scenery of the region, the Gulf, the marine-life, and the warm winter serve as the main attractions for tourists. In 2008, of 5,656,100 person-nights were spent in the Eilat hotels, 997,200 were by foreign tourists. Compared to the 1990s, these figures indicate an increase of domestic leisure tourism, but a severe decrease of foreign tourism, by 62%.\(^3\) Tourism in Eilat is also being challenged by the rapid development in eastern Sinai during the last decade and the recent dramatic development in Aqaba, plus the lower cost of vacation packages in both areas. The Eilat shores are limited, with only 6 km accessible to tourists, and the coral reefs have suffered greatly from over pressure and pollution.\(^4\) The shores of Aqaba, however, are longer, and those of Eastern Sinai are 180 km. Eilat is actually on the verge of its “sixth stage” of the predicted life cycle of a tourist site, which means decline, or rejuvenation (Butler, 1980, 1991). Since Eilat is economically dependent on tourism (ca. 53% of wages), it is essential for Eilat and for Israel to take immediate initiatives and change this course. In this light, Cultural Tourism should be developed in the Eilat area, in which archaeology is one element.

ARCHAEOLOGY IN THE EILAT REGION

Based on the environmental conditions in the region, one would expect to find only meager and poor remains of past societies. However, the evidence in the field proves otherwise. To date, over 2000 ancient sites are recorded in the area (ca. 1200 sq km), despite the fact that only 10% has undergone a detailed archaeological survey. While long gaps are found in the settlement history of the more convenient deserts of the Negev Highlands and in Southern Sinai, the ancient sites in the Eilat Region present an uninterrupted sequence of settlement during the last 10,000 years (Avner, 2006, 2008). The main elements that influenced the region’s economy and

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\(^2\) During 1960–1990, the annual average rainfall in the Eilat region was 32 mm, but during the last 20 years it has dropped to half of that (Shlomi & Ginat, 2009). The change in rain regime is not only in quantities but more so in the lack of floods, and therefore the effect on vegetation and wildlife is severe.

\(^3\) In 1996 the total person-nights was 4,544,200 with foreign tourists numbering 1,738,200. The figures are retrieved from the Annuals of the Israel Central Bureau of Statistics. I thank Mr. Yossi Baruchovich, the strategic advisor of the Eilat Municipality, for his help in collecting the data on tourism and employment in Eilat.

\(^4\) See the scientific annual monitoring reports of the coral reefs of Eilat at: http://www.iui-eilat.ac.il/NMP/Reports/Reports.aspx
history were the copper resources, the ancient international roads that crossed the area, and its geopolitical—strategic position. These caused a settlement density that defied the environmental conditions. The ancient remains also present a large variety of site types, some of which are not found elsewhere in Israel. Most sites are comparatively small but many of them are highly attractive for tourism. Many are already visited, although almost no action has been undertaken to develop and publicize them for tourism (excluding Timna Valley). The following are selected examples of sites, areas, or themes suggested for Cultural Tourism development.

**The Eilat Neolithic Cemetery**

The site is situated on the western fringe of the city. It was excavated in 1989 (Avner 1991) and found to be unique in its remains and importance. The site contained 22 *tumuli* tombs, well-built of large stones, two open-air sanctuaries, and additional cult installations. Based on the artifacts and ten $^{14}$C determinations, the site is dated from the mid-6th to the second half of the 5th millennia B.C.E. This makes the site the earliest extramural cemetery known to date in the Near East, a new independent institution. Although all tombs were found damaged, they were still rich in artifacts and symbolic features. All deceased were interred in a secondary burial, with skulls separated on the western end of the burial cell and with grave goods. Most tombs had doorways, standing stones, or both, on the eastern perimeter, as well as standing stones inside the tombs (Fig. 1). An unusual installation was found east of one tomb, built into the ground and containing a Juniper tree trunk (Fig. 2). Undoubtedly, this is the remains of a sacred tree, the Asherah, which is often mentioned in the Bible and in Ugaritic texts; the oldest remains of its kind presently discovered to date in the Near East. One of the two open-air sanctuaries is also unique. Its shape is anthropomorphic and on its eastern side was a large cluster of standing stones, 97 small ones and two larger (Fig. 3). The site presents numerous innovations in burial customs and a rich “vocabulary” of life and fertility symbols. Based on Near Eastern texts and ample anthropological studies, interpretation can be given to the site’s features and symbols. The innovations in burial practices combined with the rich life symbolism may indicate that the desert people conceived a new and revolutionary idea of a cyclical perception of life and death. This idea was contrary to the common, “linear” perception of life and death that prevailed worldwide before and long after the Neolithic period.6

**Agricultural Settlement in Uvda Valley**

Uvda Valley is ca. 40 km north of Eilat, west of the Arava. On its eastern side there are unique natural phenomena such as the globally rare dunes of lime sand, and unexpected archaeological remains. Ancient sites in the valley were first reported by Musil (1908, p. 180-182; 1926, p. 85) and later by Frank (1934, p. 263-265) and by Rothenberg (1967a, p. 138; 1967b, p. 303-307); Musil also described intensive cultivation of the valley by Bedouins and by the citizens of Aqaba. Systematic survey began in 1978, before construction of a new airbase in the valley (e.g., Avner, 1990, 1998, 2007b; Avner et al., 2003). The survey lasted four years, during which a third of the area east of the valley was covered, and was resumed only recently (January 2009).

5 Standing stones, the biblical *masseboth*, were not grave markers as they are today, but represented either deities or ancestors. Based on their position, arrangement, ancient records, and anthropological studies, it is often possible to distinguish between the two types. In the Eilat tombs, standing stones on the eastern perimeter and facing east represent deities, while those within the tombs are facing north and represent the ancestors (Avner, 1993, 2000, 2002a, 2002b Ch. 4).

6 Following the site excavation, the tombs and installations were moved and restored outside the neighborhood, and they can be visited. A study of the remains and their interpretation was prepared, but it is still unpublished (Avner, n.d.).
To date, over 500 sites are documented on an area of only 45 sq km, resulting in the greatest density of ancient sites currently known in the entire Negev and Sinai. Since 1979, 26 sites have been excavated, contributing greatly to our understanding of the ancient desert cultures. Continuous settlement began here in the Early Neolithic period (8th–7th millennia B.C.E.), but experienced a dramatic increase in the number of sites and population size since 6000 B.C.E. In the 3rd millennium B.C.E., the population reached its maximum of over 3000 people on the eastern side of the valley. The survey and excavations yielded ample evidence for the reason behind this settlement — surprisingly large-scale farming. This was found to be the time when agriculture and herding were adopted by the desert societies. Uvda Valley became and continued to be an important food source until the mid-19th century C.E. Here, only the earlier periods will be briefly described, the 6th to 3rd millennia B.C.E.

The finds include over 170 stone-built habitation units recorded to date (Fig. 4), some 40 habitation tent camps, 36 corrals, 34 water reservoirs of various types, 32 threshing floors, the largest and oldest cluster of the kind known to date in the Near East (Fig. 5), and many cult and burial sites of various types. Many of the artifacts uncovered were farming tools, such as hundreds of flint blades used for sickles and threshing sledges and two plough tips made of hard limestone, the oldest presently known in the world, dated ca. 4000 B.C.E. (Fig. 6). The shift of the human race from hunting and gathering to farming and herding has been a hot topic in research for decades. Commonly, it is mainly based on micro-botanical remains and some other small finds, but in Uvda Valley, the incipient agriculture is visible, tangible, and visited by tourists, students, and others (Figs. 5–8).

Besides the agricultural settlement remains, many sites represent the rich spiritual culture of the desert population. Sites of standing stones, the biblical masseboth, open-air sanctuaries, and other cult installations were documented and several were excavated. In most masseboth sites individual or groups of stones represent deities (Fig. 9), but in sites with many stones (Fig. 10) they represent the ancestors. An excavated open-air sanctuary yielded intriguing features, including sunken altars, a group of 17 small masseboth in the holy of holies, and a unique stone drawing of 16 leopards facing east and one oryx facing west, giving a clue to a complex mythology, some 3000 years prior to the invention of writing (Figs. 11, Avner 2002b, p. 117-119). Several types of burials indicate the importance of an after life for the inhabitants and their perception of life and death (Fig. 12). Later remains indicate uninterrupted habitation, farming, and religious practices (Avner, 2000), including large scale, successful cultivation of the valley by the Haywat Bedouin tribe during the last 500 years (Fig. 13, Avner, 2007a).

The eastern side of Uvda Valley was recently (2009) declared a Nature Reserve, and is currently being planned as an archaeological park as well.

Copper Mining and Production in Timna Valley

Copper ore occurs in several locations along the Arava Valley. The largest is the Faynan Area (biblical Punon), on the northern, Jordanian side of the Arava, the second largest is Timna Valley, 30 km north of Eilat, while others in the southern Arava are in Nahal Amram, Be’er Orah, Nahal Tzfunot, and Nahal Rehav’am. Here only Timna is briefly addressed, although the

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7 This figure was reached after averaging 9 different formulas and coefficients used in demographic studies, and after adopting severe precocious measures in each step of the calculation. In density terms (person per sq km) it means that the ‘Uvda population was 30 times more dense than that of the more convenient Negev Highlands (Avner, 1998, 2002b).

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others are attractive as well.

Timna Valley is a half crater, 10 km in diameter with 500 m high cliffs surrounding it on the north, west, and south. Geological processes exposed a complete sequence of rock types of the Eilat Region, including sandstone formations that were mined in ancient times for copper. Mining probably began in the 7th millennium B.C.E. (based on one 14C date from inside a mine), some 2000 years before the emergence of true metallurgy, i.e., turning rock to metal. An important find of the earlier periods is a smelting furnace dated to the mid-5th millennium B.C.E., probably the earliest discovered in the world (Rothenberg, 1978, 1990b; Rothenberg & Merkel, 1995, 1998). Mines of the 4th millennium (Fig. 14) and later (Fig. 15) were also investigated (Conrad & Rothenberg, 1980; Rothenberg, 1999a, 1999b), presenting a line of local development of technology and strategy of mining. Copper production in Timna reached its climax from 1300 to 1150 B.C.E., when the area was under Egyptian control (Fig. 16; Rothenberg, 1988, 1990a). However, the technology of both mining and smelting remained local. Study of copper mines and smelting camps in Timna and in the Arava in general demonstrate that the desert societies were among the first in the world to develop the sciences of geology and metallurgy, and that the skill of copper mining, production, and trade were an integral part of their material culture for millennia (Avner, 2002b, Ch. 3).

Timna Park has been intensively developed for tourism, and in recent years has been annually visited by 130,000 people annually, attracted by its scenery and history.9

Yotvata Oasis

The Yotvata Oasis is an important water source and an ancient crossroad in the southern Arava Valley, 40 km north of the Gulf of Eilat. Archaeological sites known to date cover a sequence of over 7000 years, beginning with a Late Neolithic.

On a hill south of Kibbutz Yotvata, copper smelting industry began in the Late Neolithic and continued in the Chalcolithic period (5th–4th millennia B.C.E.). The hill is clffy on three sides, while on the accessible, southwest side a 120 m long rampart was built to protect the hill (Fig. 17). The metallurgic remains were dated on the basis of pottery sherds and flint tools (Rothenberg et al., 2004) and the rampart- by 14C determination retrieved from the base of the rampart’s core. Hence, the copper industry is one of the earliest in the world and the rampart may be the earliest fortification known to date, probably built to protect the secrets of copper production in its very inception.10 In the Late Bronze Age a casement fortress was built on the hill (Figs. 17, 18), quite similar to the Iron Age fortresses of the Negev Highlands, but larger and earlier. The site’s excavation by Meshel (1993) uncovered an important collection of storage jars and other finds. The fortress’s role was two-fold, to protect an important road junction, and to ensure the water and wood supply for the copper mines and industry in Timna Valley and other other locations in the region.

Two other fortresses in the oasis, Late Roman and Early Islamic, were also excavated by Meshel. Excavation of the Roman fortress and its bath house continued in the 2000s by Magness, Davis,

9. Since the mid-1990s the numbers of foreign visitors in Timna has decreased by ca. 70%, resulting from the decline of Eilat as a tourist destination. I thank M. Lavi of Timna Park for the information.

10. The 14C date was determined from the rampart’s core in a section excavated by Meshel (RT1548), 5468±55 B.P., calibrated 4360-4240 B.C.E. (Segal & Varmi, 1996, p. 98). It should also be considered that the rampart was actually built later, as a front defense for the Iron Age fortress (Fig. 17), while the charcoal In the rampart could have originated In the Chalcolithic copper industry.
and Avner (Fig. 19; Avner et al., 2004; Davis & Magness, 2005, 2006, 2007, 2008), but more excavation and restoration is still needed. The importance of this fortress is exemplified by a large, formal inscription originally set above the fortress’s gate (Fig. 20; Eck, 1992; Roll, 1989), mentioning the names of the Emperor Diocletian and his partners, and the local Costian unit of cavalry that served there during the late 3rd and the 4th centuries C.E. The Early Islamic fortress, which served both as a military and administrative center, indicates the oasis’ importance during that period (see below). Earlier, during the Nabatean period (2nd century B.C.E. and later) a large Nabatean public building was built near the spring of Ein Ghadhian, which is most probably the temple shown on the Tabula Peuntingeriana, under the name Ad-Dianam (Fig. 21), i.e. related to the goddess Diana. Limited excavation in the building by J. Porat (unpublished), revealed large amounts of Nabatean pottery, and therefore, the temple was most probably dedicated to Al-Uzza, the Nabatean equivalent to the Roman Diana. Many studies were published on the Tabula Peuntingeriana, but one point concerning Ad-Dianam was missed. Between the Nile Delta and northern Syria, this is the only place that the Roman editors of the map selected to be indicated by the icon of a temple. No doubt this was a famous and important temple, additionally signifying the importance of the oasis in general.

Most impressive are the irrigation and cultivation systems in the Yotvata Oasis. They were first documented by Musil (1908 II, p. 183–185, 253–256) and later by Frank (1934, pp. 231–241, 263), Evenari et al. (1971, pp. 175–158), Porat (1985, pp. 132–137; 1987, p. 114), and others. The above studies described one large complex of irrigation systems; however, there are actually two separate systems (Avner, 2002a). One was based on a series of 11 large open pools, vertically penetrating the high aquifer, with open channels conducting the water to the cultivated fields (Fig. 22). The pools are dated by pottery to the Nabatean and Roman-Byzantine times, but their inception could be much earlier. The second is the qanat system, based on long underground tunnels, penetrating the aquifer horizontally. The main line of this system is two parallel tunnels, 4.5 km long, with other tunnels joining from west, plus additional, independent lines (Fig. 23). The cultivated and irrigated area covered 400 hectares, as calculated by Evenari et al. (1971). From studies by Porat (1985, 1987), it is clear that the qanat systems in Israel were built during the Early Islamic period.

The excavated and unexcavated sites of the Yotvata Oasis create an important cluster that deserves development for tourism, whereas the finds unearthed to date justify a local museum.

Early Islamic Settlement

During the Early Islamic Period (ca. 650–1070), the Eilat Region experienced intensive development. The major site was obviously Ayla/Aila, in Aqaba today, continuing the earlier Nabatean, Roman, and Byzantine city (Parker, 2006, with references), with the addition of a large Early Islamic fortress that served as an administrative and commercial center (Whitcomb, 1994; Zayadine, 1994). Besides Ayla, almost all other sites of the period were located on the western side of the Arava Valley (Avner & Magness, 1998). They included a series of six villages, large scale copper mines, mainly in Nahal Amram, several copper smelting camps, two industrial sites of gold mining and production (Fig. 24; Gilat et al., 1993), several stone quarries, large agricultural farms at Yotvata and Evrona, kilns for lime and pottery, a network of trade routes, and two fortresses at Yotvata (one was the renewed Roman fortress). Three mosques were excavated in the region, one in the Evrona farm and two open-air mosques in Be’er Ora, yielding vital information on early Islam (Fig. 25; Sharon et al., 1996). Some of the Early Islamic sites are frequently visited today by tourists and others, and they can be developed much further.
Ancient Roads

The Eilat Region is densely intersected by ancient roads, despite the ragged topography. Some roads go northward towards the center of Israel and further north, others go west, crossing Sinai, towards Egypt, but most of them run northwest, joining the Darb Ghazza (Figs. 26, 27). The roads were not local; they connected South Arabia with the Mediterranean countries. Therefore, they had a significant influence on the region’s economy and culture. A survey of these roads (Avner, 2002b, Ch. 6) raised several points: 1. The roads are clearly visible on the surface (Figs. 27, 28). 2. Artifacts collected from the trails indicate that the complete network of roads was already well established by the 6th millennium B.C.E. and was in use uninterruptedly until near present. 3. All roads are intensively attended by cult sites, masseboth, open-air sanctuaries, and others, mainly prehistoric but also of later periods. 4. While a single road is usually ascribed to the renowned Nabatean trade, the “Incense Road” from Petra to Ghazza, indeed many roads were used by the trade caravans, attended by fortresses, towers, and army tent camps. Also, rock carvings and inscriptions of different languages and times are often found along the roads, greatly enriching greatly our knowledge of their history and of the desert in general. 5. Many of the trade routes were also used for “religious tourism”, i.e., pilgrimage. The earliest pilgrimage is evidenced from large clusters of open-air sanctuaries next to crossroads, beginning in the 6th millennium B.C.E. (Avner 2002b, Chs. 5, 6). Better known are caravans of hundreds of pilgrims to St. Katherine in Southern Sinai from all over the Christian world, beginning in the 4th century C.E., and caravans of tens of thousands of Muslim pilgrims on their way to Mecca, beginning in the 9th century C.E. (Figs. 29, 30).

An intriguing case is the question of whether any important road ever ran along the Arava Valley. In the past, several scholars emphatically demonstrated that no such road ever existed (Karmon, 1968; Meshel, 1979; Rothenberg, 1971; Meshel 1979). However, the remains in the field show otherwise. All along the western side of the Arava clear remains of several ancient roads were discovered. Some in the form of wide clusters of trails, others marked by curbstones or paved by rocks (Avner, 1997). In addition, three stations of Roman inscribed milestone were found near Kibbutz Yahel, one Roman mile apart, creating a south-north line. The inscriptions mention Diocletian and his partners of the First Tetrarchy, as well as the Second Tetrarchy and later (late 3rd and early 4th centuries C.E.; Roll & Avner, 2008; and here Fig. 31). All milestones refer to Osia as the “road head” (caput via), from which the miles are counted, and the mileage points to the Yotvata Oasis. Since only a famous place could have served as a “road head”, this fact adds further evidence of the importance of the oasis. In my opinion, the ancient desert roads are a theme in their own right for Cultural Tourism.

Desert Archaeology and Cultural Tourism

Desert archaeology has greatly developed during the last three decades, in Israel and in the neighboring countries, and it continues to develop as an almost independent discipline. This is the result of recent developments in the field of archaeology, the fact that the desert preserves its ancient cultural remains better than other zones, and the increasing interest of the human race in deserts due to the current expansion of the deserts (e.g., Ezcura, 2006). Another trend characteristic of the last three decades is the fast development of Cultural Tourism, first in Europe and then on other continents. Today (2009), if one searches the Internet, he finds 20,500,000 links addressing this topic, including general ones including (e.g., ICOMOS, 1996; UNESCO, 2008), academic publications, and locations worldwide offering Cultural Tourism.

Cultural Tourism combines leisure with enrichment. It addresses large numbers of people who are no longer satisfied with “Sun & Sea”, but are looking for learning and authentic experiences.
Cultural Tourism commonly offers exposure to various themes in a given area, such as geology, biology, ecology, marine-life, history, archaeology, ethnography, and anthropology. Locations adopting this trend offer field-trips with a high level of guiding combined with lectures, from weekends to two weeks or more. Seminars are either interdisciplinary, emphasizing several themes or focus on a single theme. These ventures are usually based on an existing infrastructure, with short or longer periods of time spent in the field.

Cultural Tourism has great advantages for any region adopting it. While leisure tourism commonly “consumes” the region’s natural resources (e.g., Butler, 1980, 1991), cultural tourism encourages preservation and the development of the natural and historical resources. It seeks sustainability and promotes academic research, education programs for specialized guides, and education for the community in general (e.g., Boniface, 1995; UNESCO, 2008).

The Eilat Region provides an opportunity to develop Cultural Tourism, based on the existing infrastructure. The International Birding & Research Center in Eilat (IBRCE) is an example of successfully active Cultural Tourism. Fifty-thousand people are visiting annually, research for numerous master’s theses and Ph.D. dissertations is made here by students from various universities worldwide, while many others volunteer in research and bird counting during the migration seasons.11

The archaeological resources briefly described above, rooted in rich scenery and nature, form only one aspect of many that can be developed for Cultural Tourism. Until recently Eilat did not have an educational base of its own to promote Cultural Tourism, but now, with a dynamic branch of Ben-Gurion University, this obstacle no longer exists. Today, there is a temporary museum of modern Eilat, and the Marine Observatory. A museum for the nature and archaeology of the region would further promote education and tourism.

This paper calls on all involved authorities to take this initiative and adopt Cultural Tourism, develop it, and save Eilat from the fate of other dwindling resorts in the world. Certainly, cooperation with the neighboring desert regions of Egypt and Jordan would be beneficial to all tourists and, more emphatically, to the desert scenery, nature, and cultural heritage.

Acknowledgment

Photographs are by the writer, as are most excavations, unless otherwise mentioned.

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11. Today, ca. 7,000 ornithologists from outside Israel visit the center annually, unlike 40,000 in the 1990s, as part of the general decline in foreign tourism to Eilat. However, their average stay in Eilat is 10 nights, while leisure tourists stay only 3.1 nights. I thank Prof. Reuven Yosef and Noam Weiss of the Eilat Bird Watching Center for this information. Also see: http://www.birdsofeilat.
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Photograph Captions

1. Eilat burial site, 6th–5th millennia B.C.E., Tomb V from northeast, with mass both in the front and within the tomb.
2. Eilat burial site, an installation next to Tomb IV, with the remains of a sacred tree trunk (juniper).
3. Eilat burial site, open-air Sanctuary II, with a cache of 97 small mass both, and two large ones.
4. ‘Uvda Site 9; aerial photo of a habitation unit, 4th–3rd millennia B.C.E., excavated by Amiran, Arnon, Ilan, and Avner.
6. ‘Uvda Site 96, a stone plough tip, ca. 4000 B.C.E.
7. ‘Uvda Site 16, a paved silo, excavated by O. Yogev.
8. ‘Uvda Sites 96 and 150a; botanical remains of olive pits, two types of domesticated wheat, and three types of domesticated barley, ca. 3500 B.C.E.
9. ‘Uvda Site 69, a shrine with seven mass both, 4th millennium B.C.E., the right stone found tilted.
10. ‘Uvda Site 151, mid-5th millennium B.C.E.; a circle with two large mass both facing east and representing deities, with 67 smaller ones representing the ancestors. Most mass both were found fallen or tilted.
11. ‘Uvda Site 6, an open-air sanctuary with animal “stone-drawings”, 6th to early 2nd millennia B.C.E., from SE, after restoration; excavated by Yogev and Avner.
12. ‘Uvda Site 150a, a tomb in a rock shelter, mid-4th millennium B.C.E. (the upper right corner restored).
13. ‘Uvda Valley, an aerial photo of a Bedouin cluster of silos dug into the ground, originally bell-shaped, each with a capacity of three tons of grain.
15. Timna Mine 24, a mining shaft 42 m deep with two rows of hewn steps, as found.
16. Timna Site 200, outline of an Egyptian rock Stella, depicting Pharaoh Ramses III giving an offering to the goddess Hathor (Ventura, 1974).
17. Yotvata Hill, with a Chalcolithic rampart on the right side and LB-IA fortress on the left, excavated by Meshel.
18. Yotvata Hill, a mass, in the fortress’ gate (found fallen) excavated by Meshel.
19. Yotvata Roman fortress, remains of a staircase leading to the second floor or to the fighting balcony, with Roman and Early Islamic brick walls, excavated by Magness, Davis, and Avner.
20. Yotvata Roman fortress, a Latin building inscription mentioning the Caesars Diocletian, Constantine, and Maximian (late 3rd century C.E.) and the Costian unit of cavalry, discovered accidentally in 1984.
21. A section of the Tabula Peunitingeriana, a medieval copy of the Roman Empire map, showing a temple at ad-Diaman–Yotvata and the main roads crossing it.
22. Yotvata, an open pool penetrating the high aquifer, with a channel leading to the cultivated fields.
23. Yotvata, an aerial photo of a section of the main qanat line, marked by a series of “cake shaped” heaps, surrounding filled-in shafts that leads to the water tunnel.
24. Wadi Tawahin, a building with four millstones used for grinding the quartz containing microscopic gold, the Early Islamic period, 8th–11th centuries C.E.
25. Be‘er Ora, an open church and a mosque marked by slag slabs, with an apse on the eastern side and a mikhrab on the southern side pointing to Mecca, excavated by Sharon, Avner, and Nahlieli.
26. Map of the Eilat Region with the surveyed ancient roads.
27. Darb Ghazza, connecting the Red Sea with the Mediterranean, 30 km NNW of Eilat, from south.
28. Ma'aleh Shaharut (Naqb ad-Dhill) one of six ascents connecting the Yotvata Oasis with 'Uvda Valley and Darb Ghazza.
29. Nahal Shlomo, a bridge built for the Darb alHajj in the Mamluk period, 13th–15th centuries C.E.
30. A Hajj caravan as seen by W.H. Bartlett in 1846, ca. 20 km west of Eilat (Bartlett 1849, p. 152).
31. Two of the inscribed Roman milestones near Kibbutz Yahel, mentioning the Caesars’ names and the mileage from Osia (M. XII on the left stone).