

RESEARCH ARTICLE

**The Location and Reconstruction of a Byzantine Structure  
in Marea, Egypt, Including a Comparison of Electronic  
Remote Sensing and Remote Viewing**

**STEPHAN A. SCHWARTZ**

The Mobius Group

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A video of these events can be seen at: <https://www.youtube.com/watch?v=kCzHhYYQjQ&t=47s>

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**Abstract**—This paper reports the location and reconstruction of a Byzantine structure in the now-buried city of Marea along the shores of Lake Maryut, some 44 km southwest of Alexandria, Egypt. A Pharaonic trade center that was occupied until the 16th Century, the city has been long abandoned and lies buried around what formerly was the lakeshore. This paper reports on an applied remote viewing experiment in which two remote viewers were asked to first locate Marea, and then a buried building within the city, and, finally, to describe what would be found within the building site selected, with a particularly emphasis on tile and other decorative material. It also includes a comparison of remote viewing data with electronic remote sensing, and geographical data for the same area done independently three years earlier. The comparison is striking because while the remote viewers were successfully able to locate a building, including staking out its door, and corners, as well as providing a wealth of reconstructive and descriptive material about what would be found at the site, the electronic remote sensing and geographical analysis produced no suggestion whatever that there was a site at this location. For this reason, prior to discovery, much of the remote viewing data seemed extremely improbable, and notably contradicted the informed judgment of an archaeologist deemed by the University of Alexandria to be the leading authority on Marea.

## Introduction

When Alexander founded Alexandria in 331 BCE, Marea was a regional capitol and it remained a trade center active as late as the 16th Century. But all that lies in the past. Today Marea is hidden beneath a desert of low semi-arid hills, some 44 km southwest of Alexandria, Egypt.<sup>1</sup> Archaeology prior to this study had revealed little besides a cluster of foundations as a hint of its past.

The name Marea may be derived from the Pharaonic word *Per-Mert*, meaning: the country by the lake (Sadek 1978). If so, it was an apt name for what contemporaneous accounts describe as a lovely city with marble public buildings, situated to catch the breezes along the reed-lined, bird-filled shore of Lake Maryut, which served as a source of food, a means of transportation, and a place of pleasure, and the town was ideally positioned as a way-stop for travelers going up and down the country. The gentle airs, warm weather, and beauty both natural and constructed, also recommended Marea as a tourist attraction. The Greek geographer and historian Strabo (64 BCE–21CE) describes canals that emptied into the lake (Strabo 1989:69). The Shediya River, which originated from the Nile at Memphis also emptied into the lake, and there was access to the Mediterranean via a canal cut through to what became the Western Harbor of Alexandria.

Strabo says the commercial wines of the area were “so good that the Mareotic wine is racked off with a view towards aging it” (Strabo 1989:59) The vintages really must have been outstanding because almost 300 years later the physician Athenaeus of Attalia (1st century CE) would echo Strabo’s words saying, “The Mariotian wine . . . is excellent, it is white and pleasant, fragrant, easily assimilated . . .” (Athenaeus 1927).

Wine-making, though, was just one of the area’s activities. Authorities of the past also extol the virtues of the lake region’s olive oil, fish, papyrus, and fruit. Perhaps most famous of all, though—next to the wines—was the hand-blown glass produced in the city. It was so delicate that few examples have survived intact, and Mareotian glass is among the most prized possessions of Alexandria’s Greco–Roman Museum.

Although commerce and pleasure were its major contributions, Marea also played a political and strategic role in early Egyptian history. Herodotus (BCE 484–425), known as the father of history, and the first writer to record a remote viewing in the 46th chapter of his *Histories*, as well as his contemporary the Greek historian Thucydides (460–~404 BCE), discuss it at some length. Herodotus speaks of Marea as being a garrison town during the reign of Pharaoh Psamtich I (664–610 BCE), and indicates that it still served a strategic function under the Persians in his time (450 BCE) (Herodotus 1939 II:18,30).

At least two royal claims were settled at Marea. According to Diodorus, Amasis (575–526 BCE) defeated Pharaoh Apries and assumed his mantle at Marea (Diodorus Siculus 1933). Soon thereafter, in 525 BCE, Amasis' grandson, Inaros, proclaimed himself king at Marea, and used the city as his headquarters while he fought the Persians under Cambyses (Herodotus 1939 III:12,15).

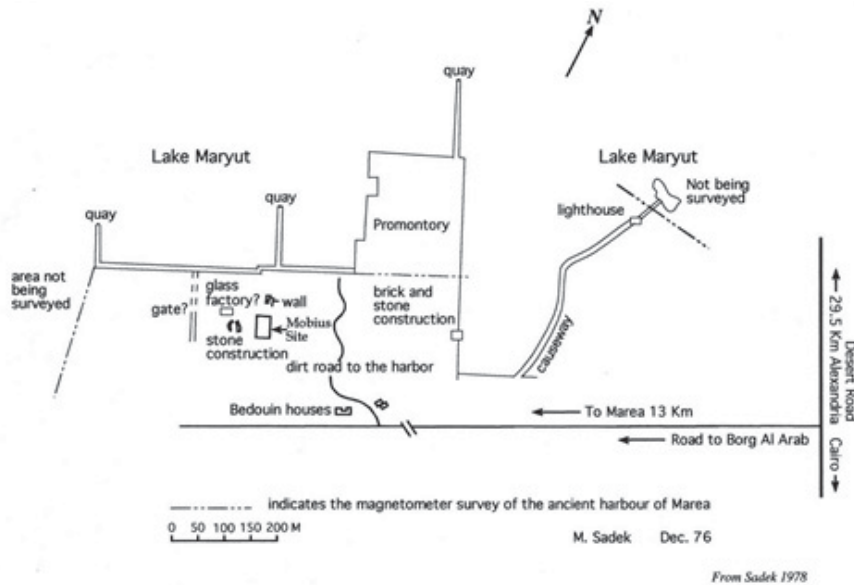
But all that is gone, both lake and city: the one now vastly diminished, strongly alkaline, and no deeper than four feet at any point, and the other abandoned and buried.

### Archaeology

The previous archaeological work relating to Marea is very limited. It begins with Mahmoud-Bey, known casually as “El Faliki” (“the Engineer”), an astronomer in the Khedival government. Although a very problematic figure, he carried out one of the first systematic archaeological explorations of Alexandria at a time when much that was ancient still remained relatively intact. His mid-19th Century excavation report describes far more than is visible today (Mahmoud-Bey 1872). Half a century later Hannibal Evaristo Breccia, generally considered the first modern archaeologist working in Alexandria, examined the area, and his description compared with Mahmoud-Bey's suggests how much had already disappeared (Breccia 1922).

Peter Fraser, a Fellow of All Souls College, and generally regarded as the best historian of pre-Islamic Alexandria, writing a century after Mahmoud-Bey, touches on Marea, both in his text and in his remarkably bounteous notes. From them it is clear to see that by the time he published his classic *Ptolemaic Alexandria* in 1972 there was little left to see (Fraser 1972).<sup>2</sup> It is the work of Professor Mahmoud Sadek of the Department of Fine Art at the University of Guelph, however, that most concerns us here, because his research is the reason we undertook the Marea experiment.

From November 16 to mid-December 1976—just three years prior to the work presented in this report—Professor Sadek and his team searched “the shoreline, promontory, and south to the end of the visible remains,” seeking evidence of previously undiscovered buried structures. It was a methodical job, using the latest electronic remote sensing technologies, and search methodologies, including aerial photography, topographical survey, and, most importantly, proton precession magnetometer (Sadek 1978:72). Measurements were recorded on a four-meter grid, 800 meters long by 100 meters wide (Sadek 1978:72). Transverses “were made along lines parallel to the lakeshore from west to east at four-meter intervals, and readings were taken every four meters along the transverses” (Sadek 1978:72). A plan was



**Figure 1. M. Sadek surveyed the area three years before the Mobius work. Using a variety of electronic remote sensing technologies, his team found buried constructions, as can be seen on the map. Note nothing was found at the site selected through remote viewing.**

produced that indicated that there should be found at the promontory and near the quays “a high concentration of sub-surface structures, probably indicating that this was the town center and pointing to the probable existence . . . of warehouses and factories” (Sadek 1978:72–73) (Figure 1).

What was most interesting to Sadek was “the grid system pattern of streets running north and south intersected by others running west to east” (Sadek 1978:73). Such a grid design is unusual in Pharaonic times (Sesostris II and Tell El Camarna, as Sadek notes, notwithstanding) and was apparently constant through all subsequent inhabitations. Sadek reports that his magnetometer exploration produced no layout that did not conform to the grid, and “there is a strong likelihood that this latest level of occupation was based upon earlier settlements” (Sadek 1978:73). The report concludes saying, “It is unlikely that anything remains of the structures except foundations” (Sadek 1978:7).

While we were interested in what Sadek found, we were even more interested in what he did not find in his careful search.

### Comparison of Electronic Remote Sensing and Remote Viewing Data

One of the research objectives of Mobius' Egyptian fieldwork was to arrange for a comparison between remote viewing and electronic remote sensing. Sadek's 1976 work offered exactly the comparative dataset we needed to effect such a comparison. When we were challenged by skeptics on the University of Alexandria faculty to prove remote viewing actually worked, by locating and describing an unknown archaeological site of their choosing in an archaeological area the University controlled, Marea, we enthusiastically accepted (Schwartz 1983/2001).

Sadek's report provided a completely independent source against which to measure the remote viewing data and thus made Marea an ideal location for our experiment. Here was a site of sufficient importance that a fairly detailed history of its past had been recorded, a history which could be compared with the reconstructive material produced by the remote viewers. Yet one still obscure enough to be *unknown* to all but a few archaeological professionals.

Additionally, because Marea was an intermittently active archaeological area under the supervision of the University of Alexandria, a regularly updated historical and archaeological description of the city was available. It established what was known about Marea, as well as a clear definition of what was *not* known. Thus, we could begin with a defined problem, and be sure that true triple-blind conditions existed—no one knew the correct answers, only excavation could reveal accuracy—upon which all could agree. A clear delineation between the results obtained through utilization of remote viewing input and electronic remote sensing could be established, and it would be relatively easy to isolate verifiable reconstructive data obtained through remote viewing that was previously unknown (Figure 1).

### Remote Viewing

Remote viewing is the demonstrated ability of individuals to describe persons, places, or events from which they are shielded by virtue of space, time, and "blindness" protocols. Viewers, in much the same way that an eyewitness would report their impressions, respond to a task that can only be accomplished by opening to nonlocal consciousness. All their senses report; that is, they can answer questions that involve smells, sounds, colors, shapes, textures, even tastes. The exact mechanism of this perceptual skill is not clear, but hundreds of published successful studies have validated the existence of nonlocal consciousness; this is not a phenomenon of chance (Schwartz 2014). The task of the researcher is to structure the interview session in such a way that normal sensory cues are absent, and that

intellectual access is eliminated. Researchers in an applied remote viewing experiment such as this one are blind to the correct information; indeed, by definition, everyone is, it is a triple-blind protocol. That is what makes it desirable for nonlocal consciousness research. It is also exciting, which makes it highly numinous, and that has been shown to increase accuracy.

Although the execution of the protocol may seem unusual, in fact researchers are essentially faced with a novel manifestation of a familiar engineering problem: searching for data buried in noise. In the case of side-scan sonar, the “noise” is particulate matter in the water, schools of fish, and the like; in this instance, normal sensory awareness and prior knowledge constitute the “noise.”

In addition to the research done by the Mobius laboratory, the research most relevant to the work reported on in this paper was that done for the U.S. Army and the CIA by Puthoff and Targ (Puthoff & Targ 1974, 1976) at SRI International.

The use of nonlocal perception in archaeology entered the literature almost a century ago with explorations of Glastonbury Cathedral in England (Schwartz 1978a:1–56, 353–354 bibliography), and continues (albeit infrequently) to surface periodically in research ranging from Poniatowski’s in Poland (Schwartz 1978a:57–107, 354–355 bibliography), Scott-Elliot in England (Schwartz 1978a:108–127, 355–356 bibliography), Pluznikov in the Soviet Union (Schwartz 1978a:127–135, 355–356 bibliography), Weiant’s with the Smithsonian at Tres Zapotes (Schwartz 1978a:222–238, Weiant 1943, 1960), and Reid’s Ontario Iroquois Indian sites (George McMullen [R3] was the viewer) (Schwartz 1978a:211–221, Schwartz no date). All of this exploration, however, was done with very little emphasis on studying the nonlocal nature of the data acquisition with a formal protocol. All this earlier work was dependent on the input of a single remote viewer, and there was no concept-by-concept assessment of accuracy.

In 1976, the author began developing a consensual methodology using multiple respondents independently and individually responding to the same questions—in conditions of intellectual and sensory blindness. Each was asked the location of archaeological sites, the description of surface geography, and the description of subsurface, or underwater, materials, to be found at that site. This team approach was designed to help improve the information-to-noise ratio previously described. The remote viewers functionally are the survey instruments, and using more than one on the same site is the equivalent of having multiple electronic sensors—satellite reconnaissance, and magnetometer survey, as examples—describe an area and then collectively define what is there.

The first use of this consensual methodology was in 1977, in a deep

ocean experiment series utilizing the research submersible Taurus I. Part of the research involved the location and description of a previously unknown wreck on the sea floor off the coast of Catalina Island in California (Schwartz 1977, 1978b). The program was conducted by Mobius in conjunction with The Institute for Marine and Coastal Studies of the University of Southern California. Known as Project Deep Quest, this field project demonstrated that remote viewers could describe in detail, from distances of up to 4,800 kilometers, a previously unknown wreck at 92+ meters of depth (Schwartz 1978c). They were also successfully able to describe specifics as to what would be found, an accurate description of the site (including drawings), the cause of the ship's sinking, and the approximate period when the disaster occurred. All points were corroborated by fieldwork, literature review, and expert analysis (Schwartz 1978c).

### **Personnel**

To carry out this research program, six teams were assembled, each having responsibility for one aspect of the research. The specialty teams were:

**The Historical/Archaeological Team:** Fawzi Fakharani, archaeologist, Department of Classical Civilizations, Faculty of Arts, the University of Alexandria; and Mieczyslaw Rodziewicz, archaeologist, Director, The University of Warsaw Archaeological Mission in Alexandria.

**The Remote Viewing Research Team:** Stephan A. Schwartz, parapsychologist, Mobius; Beverly Humphrey, parapsychologist, SRI; and Kathi Peoples, Mobius staff support.

**The Remote Viewers:** The two remote viewers taken to Egypt were George McMullen (R3), and Hella Hammid (R5). Although Hammid, like McMullen, had participated in the Deep Quest experiments, only McMullen had any real experience with archaeology, having worked for some years with Professor J. Norman Emerson, chairman of the University of Toronto's Department of Anthropology, as well as with his student Reid (Emerson 1975).<sup>3</sup> Neither viewer had ever been to Marea, and they reported they did not even know of its existence. Until asked about Marea, they had no indication that they ever would. Both viewers were "blind" to the questions before these were presented to them, indeed did not even know the project was to take place in Egypt. But even if they had been working for months with archaeologists and specialists in Alexandria, it would not have mattered since the questions were, by protocol, outside the corpus of knowledge.

**The Archives and Records Team:** Catherine Dees, historian; Kay Croissant, historian; Karen Winters, field log; David Keith, illustrator; and Jacqueline Kendall, staff support.

**The Photography Team:** Glenn Winters, film camera one; Bradley Boatman, film camera two; Karen Winters, still photography; and Kathi Peoples, camera assistant.

**The Audio Team:** Sunny Meyers, audio-film; Osama Salama, audio-film; Stephan Schwartz, interviews.

The Photography and Audio Teams were established so that an unimpeachable real-time, audio-visual record of every aspect of the experiment would exist.

### Protocol

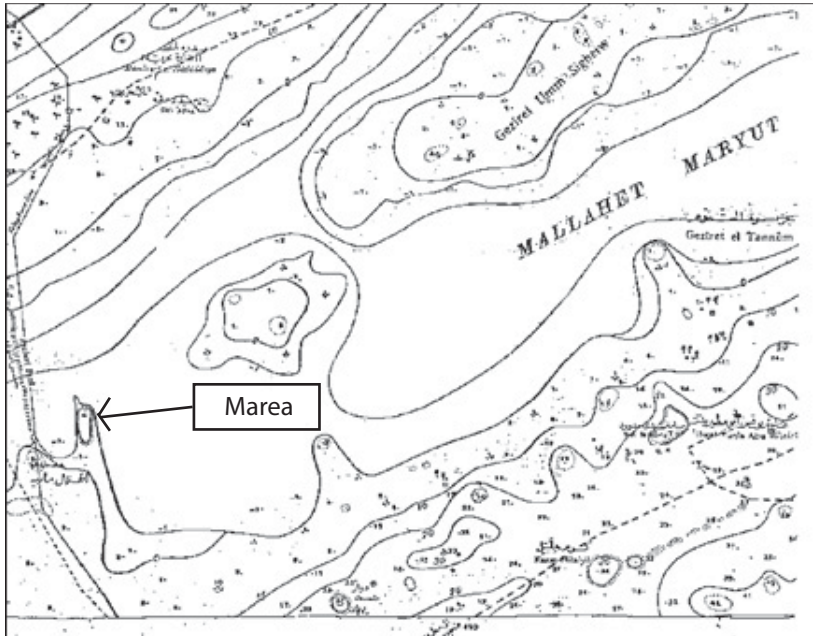
Our initial plan had been to follow our standard protocol as previously reported (Schwartz 1980, Puthoff & Targ 1974).<sup>4</sup> However, it proved impossible to find maps of sufficient detail in the United States to carry out the normal pre-expedition map probe. Once in Egypt a search for maps of Marea, at the government map office, finally turned up a single map in Arabic: *Kreir* (Sheet 92/480 *Egypt—Western Desert Province Markay Maryut*, scale 1:25,000 km), which at least located Marea, although the site at this scale covered less than one centimeter, and was useless for location work (Figure 2). On April 10, 1979, McMullen (R3) and Hammid (R5) were each given a photocopy of the map (created to remove colors that might inadvertently cue) and asked to record whatever impressions they could from it. Later in the day each was independently interviewed, but nothing that could be verified was developed at this point. Each simply reported a general sense of constructions relating to several different cultures and historical periods.

I remind the reader that everything described herein, indeed the entire Alexandria Project, was filmed and is publicly available at <https://stephanaschwartz.com/>.

Early on the morning of April 11, 1979, the two remote viewers were placed in separate cars, accompanied by a member of the Remote Viewing Research Team. Fakharani, accompanied by a graduate student assistant, as previously arranged, was isolated from the remote viewers at this stage and traveled in his own car. The cars, led by Fakharani, moved in caravan until 08:30, when all stopped at a site of Fakharani's choosing. Although the exact location was unknown to us, it was pre-agreed the stop would be at least 10 km away, and out of visual range, of the overall Marea site.

On the way out in the car, Hammid (R5), unsolicited, reported impressions relating to a tomb and a mosaic.<sup>5</sup> McMullen, riding in his car, said nothing about the experiment. Upon arriving at the rendezvous point, the author decided that Hammid should wait with Humphrey, while he and McMullen made the first location attempt. After they had left, McMullen





**Figure 2. The only map showing the location of Marea was on a scale useless for the usual map location phase of a Mobius archaeological project, as Marea was less than one centimeter in size. Note the small black dot. All colors were removed from the map to prevent inadvertent cueing. Place names were not an issue since most were in Arabic, which neither viewer read or spoke.**

was given the following charge by Fakharani:

- A. Locate the ancient city of Marea: It is somewhere within an area roughly 24 km on a side, about 576 square km in size (an area roughly equal to one-half of the city of Los Angeles). After locating the city, locate a building that has either tile, fresco, or mosaic decoration in it.
- B. Within the chosen building, locate the walls, the windows, the doors, and the depth at which the floor would be found.
- C. Describe any artifacts or conditions that would be found within the building site.

With this charge, McMullen, accompanied by only the author carrying a taperecorder and followed by one of the two film crews, headed off across the desert (Figure 3).



**Figure 3. Placed kilometers from the buried city of Marea, which no one from Mobius had ever seen, McMullen still seemed to be able to orient himself.**

Fakharani and his graduate assistant waited at a distance by themselves. For the next several hours, McMullen proceeded at a fast pace to walk the spine of a ridge, occasionally moving down its flanks. As was typical of McMullen when in the altered state in which he produced remote viewing observations, he was not deterred by temperature in excess of 38 °C (100 °F), nor the strong wind laced with stinging sand and biting flies. Indeed, as he walked, his normally pronounced limp disappeared and he became more animated, carrying on a continual monologue about what he described as a “Bexonine [sic] [Byzantine] . . . culture of grave robbers . . . people who lived off earlier people’s achievements.”<sup>6</sup> (McMullen throughout the remote viewing sessions mispronounced the word Byzantine, just as he said “Potomie” for Ptolemy and “mosiak” for mosaic. Similar mispronunciations were reported by Emerson. He frequently pronounced them correctly in normal conversation.<sup>5</sup>)

Most of the disclosures were either untestable, or indefensible against criticism from some ordinary source. Finally, McMullen stopped and said, with considerable emphasis, “Okay, I know where I want to go.”<sup>6</sup>

McMullen and the author then walked back to where Fakharani and his assistant were waiting, whereupon McMullen knelt in the sand, sketched



**Figure 4.** Without ever having seen it, McMullen (left) accurately sketched out for Fakharani (middle) and the author (right) a map of where Sadek had done his survey and Fakharani had done some preliminary excavations.

an outline of Marea as it appears today, and described for Fakharani where the University of Alexandria’s dig was located, and what the area looked like (Figure 4).<sup>7</sup> Fakharani acknowledged on camera the accuracy of the description.<sup>7</sup>

The cars were brought up, and the group then drove approximately 8 km to the Marea site. Upon arrival, and continuing over the next hour, as he walked around trailed by camera and sound crews, McMullen provided Fakharani and the author with a reconstruction of the city.

Much of the material pertained to specific scenes and individuals of ancient Marea and was inherently untestable. But much was also very specific and testable. McMullen, for instance, located several new sites. Since these were near existing excavation work areas, they were simply noted by Fakharani for subsequent investigation.<sup>8</sup> By prior agreement, only a totally unknown site was to be evaluated in the context of this particular experiment.

McMullen was charged again by Fakharani to “locate an important building—one with tile, fresco, or mosaic—something representative. It is for you to tell me where to dig.”<sup>8</sup>

Without hesitation, McMullen proceeded to walk up a hill on the south side of the ancient road. Once there he:

- A. Quickly sketched in the outline of a building with several rooms and stated that the area described was only a part of a larger complex.<sup>8</sup>
- B. Located walls, one doorway, and the corners of the structure.<sup>8</sup>
- C. Indicated that the culture that had built this building was Byzantine.<sup>8</sup>
- D. Described the probable depth to the tops of the walls as being approximately “three feet” (.91 m).
- E. Indicated that there would be debris (dropped there after being taken from a different structure).<sup>8</sup>
- F. Said that one wall, the west one, would have tiles on it.<sup>8</sup>
- G. Explained the culture or cultures that had built or modified the building and its later use for storage.<sup>8</sup>
- H. Felt we should come across “a floor” of the structure at approximately “six to ten” feet (1.8–3 m), although he confessed—somewhat distressed—“I can’t see the floor.”<sup>8</sup>
- I. Said several colors would be associated with the site, but felt green was the one that would stand out, since he perceived it most strongly.<sup>8</sup>

With this remote viewing data filmed and recorded, the first Marea remote viewing session ended, and McMullen was taken by car some distance from the site. That ended the first phase of fieldwork.

The next fieldwork phase called for a repetition of the entire location evolution only with a different viewer who had witnessed nothing of what had occurred in the first phase. Hammid was taken from where she had been waiting to the starting location where McMullen had begun, to establish the same site locale. She had been waiting for more than four hours in over 100 °F heat and strong desert sunlight and was feeling sick. Although still willing to attempt the walk, it was decided to bring her directly to Marea. Once there, she was taken to the general area of the site and told simply to look down into the ground and describe what she saw. Here again, the emphasis from Fakharani was on locating a building with decorations within it. There was nothing in evidence at the site to cue her to McMullen’s observations, and she knew nothing about them. After walking about for a moment, Hammid walked over to the same area previously selected by



**Figure 5. Hammid, in hat, described a strange column or pillar buried just beneath her. Note two motion picture cameras recording the scene.**

McMullen and sat down, accompanied by the author (Figure 5). Almost immediately Hammid began to describe:

- A. Walls.<sup>9</sup>
- B. A sense of several colors but especially “green.”<sup>9</sup>
- C. “Tiles”—possibly “green . . . on the walls.”<sup>9</sup>
- D. “A northwest corner” which she outlined.<sup>9</sup>
- E. A sense of “a bathroom, something to do with baths and washing.”<sup>9</sup>
- F. A floor of mosaic tiles, which were of “a smooth polished stone, possibly marble, with color” that she saw as “being laid in a design.”<sup>9</sup>
- G. A sense that this was an important building.<sup>9</sup>
- H. A sense that the building beneath her had “more than one room.”<sup>9</sup>
- I. Her strongest perception was that of a small “alcove sort of room containing what looked like a “broken column or statue . . . something round . . . and free-standing . . . but not complete.”<sup>9</sup>



**Figure 6.** So that there would be no unclarity about exactly where the remote viewers meant the dig to be located, as well as to fix the location of corners and a door, McMullen (left) directed the placement of wooden stakes.

Ending her remote viewing session, Hammid said she felt seriously queasy from the heat and sun and asked to be taken back to the hotel in Alexandria. That ended the second phase.

After Hammid had departed, McMullen, who knew nothing of her session, and who had been waiting some distance away while Hammid worked, was driven back to the general area of the site Hammid and he both had selected, although he did not know that. This time, he was asked to relocate and outline the limits of the building he had previously described. So that there would be no question of his exact location, he was given three-foot-long wooden stakes, which he used to put a stake at each corner of the still-buried building, and a fifth stake to mark what he said there was a doorway (Figure 6).<sup>10</sup> After this second remote viewing session was completed, McMullen was driven back to Alexandria. It had been previously agreed that the remote viewers would not discuss their individual sessions throughout the course of the experiment.

### **Independent Archaeologist Pre-Excavation Evaluations**

After the departure of the remote viewers, Fakharani and the author went over the data they had provided in detail. Although he had witnessed everything, he indicated that he had not always been able to clearly hear every word. So the audiotapes were played back for him, and he was asked to evaluate what he heard. Fakharani appeared to be amused. He stressed that the electronic survey had been unproductive in this area, and he found the idea that remote viewing would succeed, where sophisticated electronic remote sensing had failed, preposterous. If there *were* anything at the location the remote viewers had selected and marked out, he said, he believed it would be the Roman acropolis.<sup>11</sup>

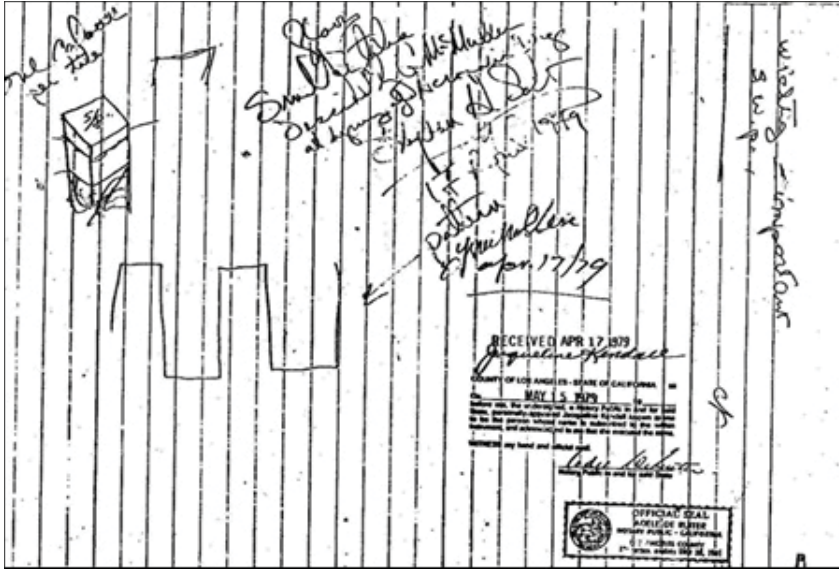
Asked to comment on the outline of the walls, he responded that walls could no doubt be found all over Marea. When asked to reconcile this observation with the fact that the electronic survey had not turned up walls at this site, he did not respond.<sup>11</sup> He reiterated his disbelief that anyone could locate and outline buried walls using remote viewing.<sup>11</sup> He said that although the digging might conceivably uncover walls, if it did they almost certainly would *not* be aligned with the stakes laid out by McMullen. Any structure found on the hill, he said, would specifically be oriented differently.<sup>11</sup>

### **Additional Remote Viewing Prior to Excavation**

On the morning scheduled for beginning the actual excavation, April 17, 1979, prior to leaving the hotel McMullen volunteered two sketches of Marea as he perceived it during the Byzantine period.<sup>12</sup> He further volunteered information elaborating his answer to the question concerning the floor he had been asked about on April 11. He said it had continued to bother him because while he could not clearly remote view any floor at the site he felt:

1.) Small tiles would be found at the level of the floor.<sup>13</sup>

- A. These tiles would be marble, smooth on one side and rough on the other<sup>13</sup> (Figure 7).
- B. As part of a floor, the tiles had been laid in a chalky sub-flooring.
- C. The tiles were square.<sup>13</sup>
- D. The tiles were 5/8 of an inch (1.59 cm) across.<sup>13</sup>
- E. The tiles were one color each.<sup>13</sup>
- F. The tiles at one time had been laid in a colored pattern.<sup>13</sup>



**Figure 7.** On a pad of lined yellow foolscap, McMullen drew the small tiles he saw, their chalky sub-floor, single color, and pattern. Also note notary's seal to establish an unimpeachable chronology.

### Excavation Methodology

In accordance with the pre-agreed protocol, all digging was to be directed by Fakharani; he had the imprimatur of the University of Alexandria as their expert on Marea and was a trained archaeologist. By assigning responsibility for the excavation to an outside observer, we sought to avoid any vulnerability to charges that by controlling the excavation we, in some way, might manipulate the outcome.

Upon arriving at the site at 08:00 on April 17 for the first day of digging, as we drove up we saw, and filmed, Fakharani moving the stakes. He had radically skewed them from their original orientation, and extended the dimensions on the western and eastern sides. He had also directed the workers to begin. This would have gone unnoticed if we had arrived minutes later.

In defense of these actions, Fakharani claimed that the move was necessary to assure that both sides of the walls—if walls there were—would be excavated. He reiterated again that the site had been surveyed electronically and nothing had been found, and asserted again that if there were anything, which he did not think would be the case, it would be Roman, and could not possibly be Byzantine.



**Figure 8. Within inches of the depth predicted, walls appeared. It was also possible to see there were multiple rooms, and that Hammid's strange column was in fact exactly where she had described it.**



Only about two inches of desert soil had been removed and nothing had been revealed. Most importantly, the holes where McMullen had placed the stakes were still obvious. Against Fakharani's strong objections, the stakes were moved back into their original holes, thus assuring the dig would take place exactly as defined by the viewers, while the triple-blind conditions still prevailed.

The Bedouin laborers Fakharani had chosen could only work in the early mornings before it became too hot for physical labor (the temperature rose as high as 114 °F / 45 °C or even higher by afternoon). As a result, excavation would take almost six weeks.

#### **Additional Remote Viewing After Excavation Had Begun**

On April 18, approximately 10 cm of Hammid's column suddenly appeared, and work was stopped. McMullen was asked to remote view it. He said immediately that it was connected with "heat . . . and fire."<sup>14</sup>

On April 25 at about 08:30, walls began to appear. The depth was within inches of that predicted by the viewers, and exactly as oriented and staked out by McMullen (Figure 8).

I stopped the work, divided the site into nine quadrants, and asked Fakharani to excavate one quadrant at a time so we could accurately assess each concept advanced by the viewers as we went along. He objected and found this very tedious, but he finally agreed, and that is how work proceeded. On April 26, when excavations were at about .46 m (1.5 feet), two other remote viewing points were volunteered by McMullen:

1. At about eight to ten feet (2.44–3.05m), a ledge running around the walls would be found.
2. Something we would find was associated with baths or bathing. He stressed that he was unclear what this meant, but he emphasized the strength of this impression.

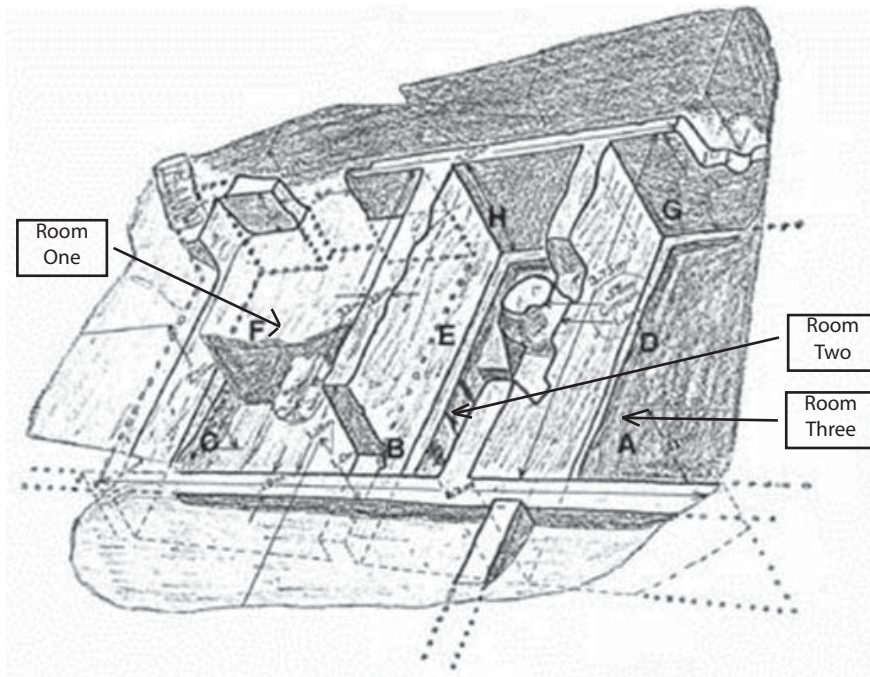
On April 27, McMullen, while standing in the partially excavated site, was asked to remote view it again concentrating this time on decorations. He volunteered, “This is generally Roman, and I would say this is a steam bath . . . ”<sup>15</sup> He could not reconcile the apparent contradiction between his earlier statements describing the site as Byzantine, nor explain why he suddenly was perceiving imagery about baths just as Hammid had. McMullen, who knew nothing of Hammid’s comments, said he simply felt that both observations were accurate.

I believe that in both instances these observations occurred because I, the interviewer, who had given the viewers their task instructions, had failed to formulate the task correctly. In this instance, for example, McMullen was asked to focus his intentioned awareness on decorations, but was not told they should be decorations specific to the construction of this particular ruin. Throughout the Alexandria Project we saw and confirmed several other examples of this kind of displacement, all emphasizing the importance of the framing of the task instruction.

### **Excavation Results and Evaluations**

Since there was no productive location data at all from any aspect of the electronic remote sensing, the historical review, or the topographic survey specific to this site, there is nothing to evaluate beyond the failure of these approaches to locate what was actually found. Only the remote viewing information provided positive testable data. It is also worth noting that no electronic remote sensing technology could have produced comparable data to the remote viewing material pertaining to colors, culture, and artifacts.

**Walls:** Both remote viewers had predicted walls would be encountered at a depth of “between three and four feet (0.91–1.22 m).” This statement



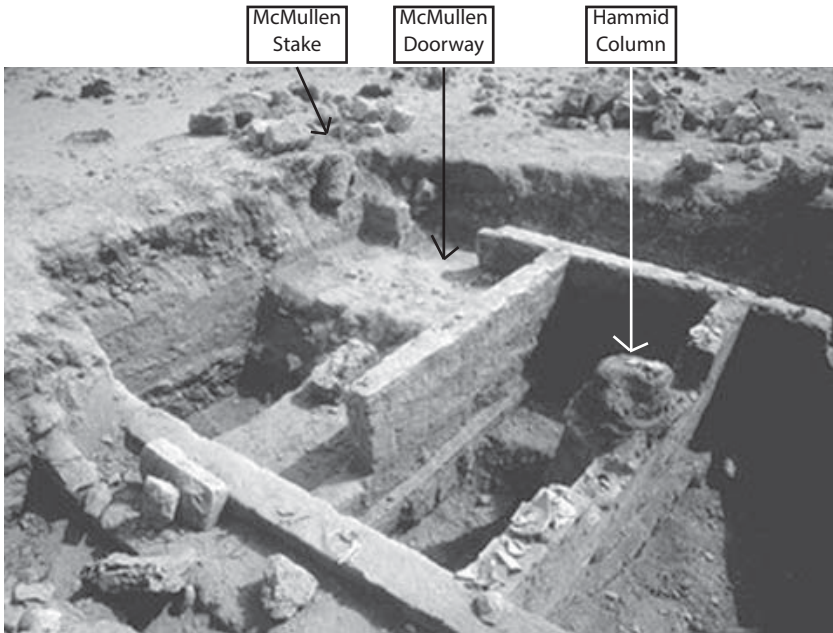
**Figure 9. Field sketch of the site completed. Bold printed letters denote quadrants.**

was made by McMullen in reference to the western wall he had staked out through Quadrants A, B, and C. Hammid did not specify a particular wall, only the depth at which walls would be found. Excavation revealed wall tops at 3 feet four inches (1.01 m), exactly within the depth predicted (Figure 8).

**Orientation:** The first part of what later proved to be a wall was found in Quadrant G (Figure 9) and closely approximated and was parallel to the stake orientation laid out by McMullen.

**Multiple rooms/part of a larger structure:** Over the next week, additional walls were uncovered, clearly defining the three distinct rooms predicted which were obviously part of a larger structure as predicted (Figure 10).

**Byzantine vs. Roman:** Although the wall stone was well-dressed, from the beginning it was obvious this site was not the remains of a Roman acropolis as Fakharani had insisted. He continued, however, to maintain for some days longer his belief that the site was transitional, that is late Roman or very early Byzantine. This position also became untenable as pottery



**Figure 10. Dig in its final phase, showing all three rooms, doorways, ledges, and Hammid's "column."**

sherds emerged. This material was judged to be fill, but almost all of it was of Byzantine origin, and late Byzantine at that (Figure 11).<sup>16</sup>

The issue was further defined when a red and white cross in a circle was found painted on the foundations of Room 2 (Figure 12). It was not clear immediately whether this was a consecration mark, or a quarry mark, although most of the archaeologists who were shown the data felt it was the mark of a Christian building. Months later, in November 1979, the issue was settled when Rodziewicz, who had by then evaluated the site in detail, reported his conclusions: It was a "6th Century Byzantine" structure, and this confirmed the remote viewing data.<sup>17</sup>

**Corners:** The locations outlined through remote viewing by McMullen and Hammid proved to be highly accurate, and are particularly impressive from a remote viewing point of view (Figure 10).

**Green:** At a depth of 1.5 m (4.92 feet), primarily in Room 2 in Quadrant H, substantial quantity (about two-thirds of a rubber worker's basket) of a green clay-like substance was discovered. This material, found in roughly rectangular chunks, crumbled easily between the fingers. Fakharani felt it was a pottery or tile glaze.<sup>18</sup> Whether this meant the room had been used for making pottery or tile, or the material was fill originating at another site, he was not prepared to say.<sup>18</sup> A single piece of dark greenish tile was

**Figure 11. One of the several hundred Byzantine sherds excavated from the dig site.**



found in Quadrant A on April 25. Whether it was in situ or not has yet to be determined. What is unequivocal is that at a site notable mostly for its tans and sand desert colors, the color that stood out the most was green, just as predicted.

**Wall Tiles:** Other than the one green tile, no wall tiles were recovered at this site, and this could be considered the greatest “miss” in the remote viewing data. However, in light of the outcome of the floor data, it is also possible that wall tiles had been stripped from the building before it was abandoned.

**Doorway:** A doorway was found leading into Room 3, exactly where it had been staked out by McMullen (Figure 10). This was apparently a later and cruder exterior entrance than the building’s original entrance, which was not in the section excavated.

**Freestanding cylindrical object / column:** On April 26, workers taking down Quadrant E uncovered a domed round shape, which proved to be the top of a column. Not a structural column, but one formed of a brown unglazed low-grade pottery, sufficiently sturdy that it maintained its



**Figure 12. The red cross found on the “ledge” at the bottom of the foundation.**

structural integrity throughout the excavation. It was clearly not original to this site, and was free-standing in a crude breach notched between the wall separating Rooms 2 and 3. It tapered from bottom to top, measuring approximately 1.6 m in circumference near the base, and 0.58 m at the top (Figure 10).

Excavations over the next week revealed that the “column” was unquestionably a later addition, added long after the building had been abandoned by its Byzantine builders, since the wall breach only went down about 0.45 m, and the column measured about 0.4 m in height. It would have toppled over unless one assumed that at the time the breach was made (with no attempt to redress the stone) the bottom of the gap was essentially the building’s floor—the lower portion of the structure having by then been filled with material from other sites at Marea, as well as accumulated sand and dirt blown in by the frequent winds. None of the members of the Historical/Archaeological Team could advance a definitive explanation of its use and identity.

A plausible explanation, however, came from a worker of Libyan heritage. He said it resembled a type of oven he had seen his grandmother use, both for heating and for baking bread. Essentially a primitive kind of thermal bank it allowed a village woman to eke out every joule of thermal

**Figure 13. The “ledges” described by the remote viewers were located as predicted. This was the level of the original floor.**



energy in a land where wood was scarce and even animal droppings were hard to come by. He said it was his grandmother’s practice to build a solid pillar of “poor pottery” around which coals were heaped to heat it. When the coals were scraped away, he said, flat loaves of bread were laid directly on the pottery form to bake.<sup>19</sup>

Of all the finds made in the course of this excavation, the discovery of this column caused the most excitement among the Remote Viewing Research Team. Its very anomalousness—though confusing to the archaeologists—made it attractive to the Remote Viewing Research Team. Such an object could not have been anticipated, and accurate data concerning its presence was, for that reason, all the more impressive. Hammid’s final grace note, that the column was “broken,” was accurate.<sup>20</sup>

**Alcove column room:** Hammid said the column would be in a kind of “alcove room,” and Room 2 appeared in just this configuration in relation to the size of the other two rooms. This was, as she predicted, also where the column would be found (Figure 10).

**Ledges:** On April 27, McMullen’s statements about the ledges was proven out. A ledge was discovered in Room 3 at 1.1 m below the top of the wall. The next day, ledges were found in Room 2, at approximately the same distance below the top of its walls (Figure 13). A ledge was subsequently

found in Room 1. McMullen had seen these ledges as in some way related to seating. This was incorrect and possibly a example of one of the major sources of “noise” affecting remote view perceptions—the tendency of remote viewers to interpret what they perceive, rather than just reporting the image.

**Floor . . . no floor:** McMullen’s concern about the floor question was resolved at the same time the ledges were discovered. In Rooms 1, 2, and 3, a white gypsum-like hard chalk surface was uncovered. Fakharani felt that this was a sub-floor and that the floor cover that had rested on it had later been stripped away.<sup>21</sup> This layer was broken through and from that point to below the foundation no other sign of a floor was discovered. In light of this sub-floor discovery, in the absence of the main flooring McMullen’s “floor but no floor” comments suddenly made sense.

**Small tiles:** At McMullen’s first remote viewing session, on April 11, he had given a brief description of small floor tiles. He augmented this during the session of April 17 by his drawing and his comments about the tiles (Figure 7).<sup>22</sup> On April 29, while workers were taking down Quadrant C, in Room 1, they hit the gypsum sub-floor. In the northwest corner of Quadrant C, intermixed with the gypsum and just below it, they found three circular marble objects, rather like thick quarters. Over the next two days a total of eight more of the objects was located (Figure 14). Each one was either red, black, or white.

Each of these disks was 3 cm (1 3/16 inches) by 1 cm (25/64 inch)—McMullen had estimated prior to excavation that they would be 5/8 inch across. He was incorrect in his perception that the tiles were square, but correct that they were smooth on one side, rough on the other, and used on top of a chalky sub-floor. Both he and Hammid were consensually accurate in their description of the tiles as being of one color each, and marble.

Fakharani, who had been notably skeptical of the idea that someone could describe a tile buried several meters into the earth, at first maintained that the objects were weights. Closer examination by Daoud and Rodziewicz, and subsequent conversations with Fakharani produced the consensus that they were, as McMullen and Hammid had predicted, mosaic tiles.<sup>23</sup>

**Debris:** In almost every remote viewing session, there was a clear sense on the part of the remote viewers that “a lot of debris” would be found in the site, and a great deal was, in fact, located— particularly masses of pot sherds. There were also pieces of marble uncovered, which were evaluated by Fakharani as being Roman debris. The author, at the time of the interviews, neglected to properly follow up on these observations in order to elicit further imagery. The remote viewers, however, on one topic volunteered data, as is seen in the next item.





**Figure 14.** Small tiles were found as predicted by McMullen, who was correct in describing them, except that he saw them as square (they were round), and he was 5/8 inch off in their size.

**Bath . . . bathing . . . steam bath:** From the very first session at Marea, the remote viewers had provided data related to “baths and bathing.” Hammid had felt it so strongly that she thought it must a kind of analytical overlay suggested by the guidance query about tiles.<sup>24</sup>

As with the debris question, the issue of baths benefited from subsequent study by members of the Historical/Archaeological Team. In November 1979, Rodziewicz said that he had examined both the site and the artifacts (Figure 15). He had not been told about the observations of the remote viewers concerning baths, bathing, and steam baths.

He reported that he felt that a great deal of the material, particularly the marble fragments, was debris that had originally come from the Roman “baths down the hill. . . .”<sup>25</sup>

Prior to our work at Marea, Fakharani had just begun excavating a structure at the foot of the hill, across the road from our site. When we were there he said it was a church, an observation with which McMullen disagreed. Work on Fakharani’s site was suspended while we were there, but after we had left Marea it resumed. When we returned to Egypt eight months later, Fakharani, after consultation with Rodziewicz, had changed his mind, and now believed the site he was working was a public baths probably dating to the Roman period. Rodziewicz particularly pointed out



**Figure 15. Marble fill found at the site, but later determined to have come from the baths, when they were subsequently identified at the foot of the hill.**

evidence he had found of hydraulic mortar, and suggested that the pieces of marble found at our site were probably debris that had originally come from these baths.<sup>25</sup>

### **Discussion**

**Comparison of search technologies:** Which approaches, electronic remote sensing or remote viewing, were most accurate and productive? The question is easy to answer in this experiment, because all the electronic and geographical surveys—satellite imagery, magnetometer, and topography—were completely unproductive at this site.

**Location accuracy:** Remote viewing was highly accurate in providing information for location. The building was outlined within inches, indeed any variance is due more to Fakharani's abortive attempt to move the stakes placed by McMullen than inaccuracy on the part of the remote viewer. The location of the door was an extra, and particularly impressive, addition. But, perhaps most elegant of all was the correct location of the corners. Corners are especially difficult, because they represent the intersection of two planes, and must be precisely located.

**Descriptive accuracy:** In contradistinction to laboratory experiments which can measure the variance from a chance outcome, because they work with known target sets, in an applied remote viewing experiment no such baseline exists. Even more importantly, in a laboratory experiment the statistical outcome is the end step; while in an applied remote viewing experiment the viewing is the beginning of the project—the source of location and descriptive predictive data. In this setting the evaluation outcome is the expert analysis by knowledgeable specialists.

**Researcher error:** A close examination of the data reveals the subtlety of the researcher/remote viewer transaction. The viewers were asked to concentrate on both a building and decorations, and they did so. But many of those decorations came from another site; not terribly important in this experiment, but potentially very important in others. The failure can be traced to the premise question. *Properly, the question should have been to describe "decorations original to this building."* The remote viewers fulfilled their tasks—the excavation demonstrates that—but clearer questions would have elicited clearer answers. The entire issue of how questions are framed so as not to cue or suggest a particular answer, but to precisely elicit the information sought, needs much more thought. This experience also suggests that results which superficially appear to be a failure in remote viewing may, in fact, be the failure of the researchers. Finally, it seems to indicate that the apposite way to see this methodology is, again, in engineering terms, in which the researcher/remote viewer relationship is, at core, the creation of a bio-circuit. The Marea experiment along with the Eastern Harbor research are representative of the current state of understanding in applied remote viewing. Both experiments display with clarity the strengths and current limitations of this search technology, and its potential in archaeology.

Ultimately the contribution remote viewing makes will depend on how honestly archaeologists examine the fruits that it offers, unencumbered by preconception and false perspectives. Archaeology must move beyond serendipity in the finding of sites. Remote viewing is not a total answer to its location problems, but it is, surely, one piece of the puzzle.

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### Notes

- <sup>1</sup> Marea can be found by driving southwest from Alexandria 29 km on the desert highway that runs between Cairo and Alexandria (turn at the security guard post where there is a sign with an arrow reading “Archaeological Excavation/The University of Alexandria,” and then go 13 km farther on, to a cluster of yellow Bedouin houses known as the village of El Hauwariya. At a blue and white house in the foreground, turn right and pick up the track leading toward the lake. A small, fenced animal enclosure with trees should appear on the left if you are proceeding correctly. At the end of this track the excavations should come into sight.
- <sup>2</sup> Fraser’s (1972) three-volume work is unquestionably the finest overall modern source. References are included in the copious notes, often in abbreviations that may be cryptic to those not thoroughly familiar with the source literature on Alexandria and its environs, including Marea.
- <sup>3</sup> Interview with Norman Emerson, Department Anthropology, University of Toronto, on November 14, 1974; Emerson began reporting on his work using remote viewing in 1974 and continued until his death (Emerson 1975, Schwartz 1978a:356–357 complete bibliography of Emerson’s reported work).
- <sup>4</sup> Side scan sonar survey by Harold E. Edgerton (Schwartz 1980, Puthoff & Targ 1974).
- <sup>5</sup> Memorandum for the Record by Beverly Humphrey, April 11, 1979.
- <sup>6</sup> Remote viewing session in the vicinity of Marea with George McMullen, April 11, 1979.
- <sup>7</sup> On-camera exchange with Fawzi Fakharani, George McMullen, and Stephan Schwartz, April 11, 1979.
- <sup>8</sup> Remote viewing session #1 with George McMullen, April 11, 1979.
- <sup>9</sup> Remote viewing session #1 at Marea with Hella Hammid, April 11, 1979.
- <sup>10</sup> Remote viewing session #2 at Marea, George McMullen, April 11, 1979.

- <sup>11</sup> Interview at Marea with Fawzi Fakharani, April 11, 1979.
- <sup>12</sup> Volunteered unsolicited remote viewing drawings by George McMullen, April 17, 1979.
- <sup>13</sup> Remote viewing session #3 at Marea with George McMullen, April 17, 1979.
- <sup>14</sup> Remote viewing session #4 at Marea with George McMullen, April 17, 1979.
- <sup>15</sup> Remote viewing session #5 at Marea with McMullen, April 27, 1979.
- <sup>16</sup> All pottery from the excavation was turned over to Fakharani, who was to produce a pottery analysis to be included as part of this report. So far none has been received.
- <sup>17</sup> Interview in Alexandria with Rodziewicz, November 17, 1979.
- <sup>18</sup> Interview at Marea with Fakharani, April 25, 1979.
- <sup>19</sup> Interview with Mohamed Abraham, a Libyan construction worker, April 26, 1979.
- <sup>20</sup> Remote viewing session #1 at Marea with Hella Hammid, April 11, 1979.
- <sup>21</sup> Interview at Marea with Fakharani, April 29, 1979.
- <sup>22</sup> Remote viewing sessions #2 and #3 at Marea with George McMullen, April 11 and 17, 1979.
- <sup>23</sup> Interview with Rodziewicz and Daoud, November 7, 1979.
- <sup>24</sup> Remote viewing session at Marea #1 with Hammid, April 11, 1979.
- <sup>25</sup> Interview with Rodziewicz, November 15, 1979.

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