The Caravel Project

The Location, Description, and Reconstruction of Marine Sites Through Remote Viewing, Including Comparison With Aerial Photography, Geological Coring, and Electronic Remote Sensing

Stephan A. Schwartz, Randall J. De Mattei, Roger C. Smith[1]

Abstract – The Columbus Caravel Project is a multi-phase research program designed to locate and excavate from St. Ann's Bay, Jamaica the remains of Columbus' last two ships, *Capitana* and *Santiago de Palos*. After an enforced exile, Columbus and his marooned crew were finally rescued. They departed for Hispaniola and Spain, leaving behind two of the oldest recorded shipwrecks. The Caravel Project was organized in 1982 by the Institute for Nautical Archaeology (INA) in conjunction with the Institute of Jamaica. The Mobius Society[2] joined in the search during the summer field season of 1985. This report presents only that phase of the work involving the use of Remote Viewing data subjected to field confirmation. Two subsequent surveys of the Bay are also addressed in the discussion section.

Location: Remote Viewing selected, and then confirmed on-site, an area of 1041 feet x 541 feet = 0.02 sq. miles as the area where finds would be made. The discovery of artifact and ship remains were made within the Remote Viewing predicted areas, and nowhere else, although substantial areas outside of the Remote Viewing locations were searched. As described and located by the Remote Viewers, a previously unknown shipwreck was found in Consensus Area I. A second

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   Randall J. De Mattei was a member of the Mobius Society.

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2   The Mobius Society was founded in 1977 as a non-profit interdisciplinary research foundation, based in Los Angeles, California, established to rigorously explore exceptional human performance. Its Research Director and Chairman was Stephan A. Schwartz. From 1977 to 1993, as one of the leading parapsychological laboratories, Mobius carried out research and published papers, technical reports, and books, as well as producing documentary films on remote viewing, creativity, personality research, meditation, therapeutic intention, and social transformation. Mobius specialized in applied experiments using nonlocal consciousness to carry out practical application research in archaeology, criminology, medicine, and societal dynamics.

Consensus Area because of time and sea conditions was not searched. Visual diver inspection was the confirming source of each location prediction. To calculate the probability of selecting these locations by chance within the Search Area, consider the finds reported as a cell in a grid of 217 similar cells. The probability of finding this one is $p = 0.0046$, which strongly suggests that chance is not an explanation for the locations. Some of these remains are from unidentified ships of a period later than the Columbus wrecks, but much of the debris is unidentified, even as to period. Ultimately, identification of *Capitana* and *Santiago de Palos* may never be achieved because there may not be enough to answer the question of where the caravels are located.

Description and Reconstruction: Remote Viewing in addition to providing location, described the underwater and surface geography of the area to be searched, as well as providing descriptive and reconstructive data on the objects that would be found there. Overall 1012 concepts concerning Remote Viewing locations, descriptions, and reconstructions were presented during individual interviews by eight Remote Viewers. An evaluation of the accuracy of Remote Viewing data, was carried out by the INA Archaeological Field Director, based on archaeological, geological, and electronic remote sensing field surveys and historical analysis. It is presented with each concept evaluated on a four point scale: "Correct," "Partially Correct," "Incorrect," and "Not Evaluable." Forty five per cent (45%) of the concepts received other than "Not Evaluable."

Das Caravel Project
Die Ortung, Beschreibung und Rekonstruktion von marinen Standorten durch Remote Viewing, unter Einbeziehung von Luftbildaufnahmen, geologischen Bohrungen und elektronischem Remote Sensing

Zusammenfassung[3] – Das Columbus Caravel Project war ein mehrstufiges Forschungsprogramm zur Lokalisierung der Überreste der letzten beiden Schiffe von Columbus, *Capitana* und *Santiago de Palos*. Columbus und seine abgesetzte Besatzung reisten nach einem erzwungenen Exil nach Hispaniola und Spanien und ließen zwei der ältesten dokumentierten Schiffswracks der westlichen Hemisphäre zurück. Das Caravel Project wurde 1982 vom Institute for Nautical Archaeology (INA) in Zusammenarbeit mit dem Institute of Jamaica organisiert. Dieser Bericht stellt nur jene Phase der Arbeit vor, bei der Remote Viewing-Daten verwendet wurden. Ein Team von acht Remote Viewern wählte ein Gebiet von 317 mal 165 Metern als den Bereich aus, in dem die Funde gemacht werden könnten. Die Entdeckung von Artefakten und Überresten von Schiffen erfolgte innerhalb der mittels Remote Viewing vorhergesagten Bereiche und nirgendwo sonst, obwohl beträchtliche Bereiche außerhalb dieser Bereiche durchsucht wurden. Wie von den Remote Viewern beschrieben und lokalisiert, wurde ein bisher unbekanntes Schiffswrack gefunden. Die Wahrscheinlichkeit, zufällig dieses

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3   Eine erweiterte deutsche Zusammenfassung findet sich am Ende des Artikels.

Segment der Funde auszuwählen, wurde mit p = 0.0046 eingeschätzt. Zufall scheint also keine Erklärung für das Finden dieser Standorte zu sein. Einige der gefundenen Überreste stammen von nicht identifizierten Schiffen aus einer Zeit nach den Columbus-Wracks, doch ein Großteil der Trümmer ist nicht identifiziert, selbst nicht hinsichtlich der Zeitperiode.

Schlüsselbegriffe: Anthropologie des Bewusstseins – Archäologie – Christoph Columbus – Geschichte – Karavelle – Jamaika – nautische Archäologie – Parapsychologie – Remote Viewing – Unterwasser-Archäologie

Introduction and Overview

Columbus' Fourth Voyage: a History[4]

Four small caravels, all that Columbus could muster in 1502, weighed anchor in April from Spain to sail the familiar route to the Indies. It was to be the mariner's most dangerous, least profitable, and final voyage of discovery. He called it the *alto viaje*, or high voyage, but in fact it was an expedition fraught with frustration, duress and despair.

Experts in the evolution of seagoing craft know surprisingly little about Columbus' vessels, the equivalent in the technology of that day, to the Mercury space capsules of ours: The first in a long line of European transoceanic craft that made world exploration possible and catapulted western Europe out of the inward looking Middle Ages.

For all its historical significance, no one living has ever seen a caravel under sail (see Fig. 1) although several naval architects and maritime historians have constructed conjectural models of Columbus' ships. We know though that they were adapted from various Old World traditions, and created for lightness, speed, and maneuverability by the Portuguese, who tried to keep their design features a secret. The Spaniards eventually discovered them, and altered the rigging of their new caravels to catch the Atlantic trade winds. Columbus and his colleagues chose caravels for each of their famous voyages because they were the best choice.

Seeking gold and a navigable strait to the Orient, the Columbus fleet cruised the Central American coast for many months until it finally was forced to take refuge in Panama due to con-

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4   This summary of events was sourced from: Roger C. Smith. *The Voyages of Columbus: The Search for his Ships*. Chapter two. "In Ships and Shipwrecks of the Americas". Edited by George F. Bass (Thames & Hudson: New York, 1988). Also Donald G. Geddes III. *Archival Research: The Search for the Columbus Caravels at St. Ann's Bay, Jamaica* (1992: 148–151), and John C. Neville, Robert S. Neyland, & James M. Parrent (1992), *The Search for Columbus' Last Ships: The 1991 Field Season*.

Fig. 1: Caravels of Columbus, 1492 (engraving)
source: SLUB/Deutsche Fotothek
http://www.deutschefotothek.de/documents/obj/70042547

tinual storms and the worm-eaten condition of the ships. The Admiral's attempt to establish a colony there, at the mouth of a river he named Belen (Bethlehem), was no more successful than his search for a strait. The endeavor cost him the lives of several crewmen, including the two ship's caulkers, during a skirmish with Indians, as well as one of the ships, which had to be abandoned in a hasty retreat. Soon after, a second vessel was abandoned, too leaky to be kept from foundering.

Intent on the closest safe haven, Columbus ordered his weary crew to make for Hispaniola, but soon found that sailing against contrary winds and currents they could not gain enough windward progress to reach their destination. With the remaining caravels, *Capitana* and *Santiago de Palos* now so leaky that the pumps could no longer keep them afloat, Columbus directed his ships to enter the bay he had discovered and named Santa Gloria—modern-day St. Ann's Bay—during his second voyage 10 years earlier. The date was 24 June 1503, 13 months since their departure from Spain.

The two rotten vessels were grounded in shallow water "within a bow-shot distance from shore." Their decks awash, the hulls were shored upright and lashed together, and cabins were built on the decks to house the crews. Two good streams and a large Indian village, which ultimately supplied the company with victuals, were located nearby.

Columbus and his crew lacked the tools necessary to build a new ship, and the caulker skills to make them seaworthy. And there was only a dim prospect of another ship arriving at gold-barren Jamaica. The castaways' only salvation lay in getting a message to Hispaniola. Diego Mendez, Columbus' secretary, volunteered to make the crossing, trading a brass helmet, cloak and shirt with a local chief for a large 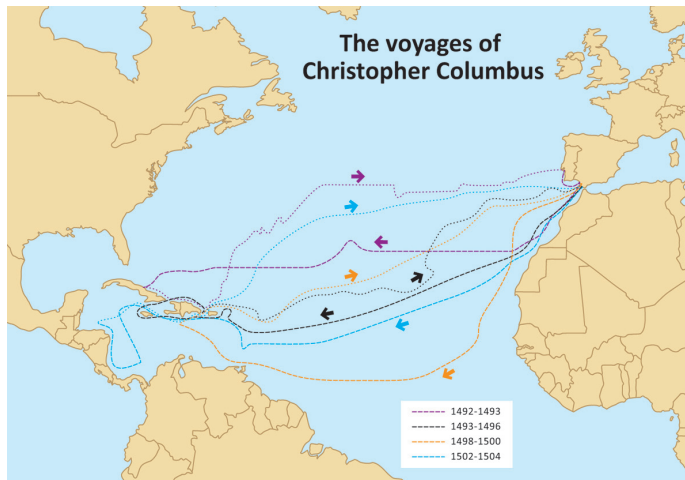dugout. The first effort failed; during a succeeding attempt, a larger crew of Spaniards and Indians finally managed, after nearly four days of paddling across open water to reach Hispaniola. However, the arrival on the island was only the first part of the rescue operation; Mendez still had to convince the island's governor, Ovando, to save Columbus, whom he greatly disliked.

Fig. 2: The voyages of Christopher Columbus (source: Vecteezy.com).

Meanwhile at Santa Gloria, the stranded crew waited, not knowing the fate of the rescue operation. The situation quickly degenerated into a survival outpost filled with sick, hungry, and mutinous men. Because the vessels were almost awash when they were beached, only the decks and sterncastles provided shelter for some 117 men and boys. Their endless confinement on the ships, and at their camp on the island, fomented discontent, and eventually—in January 1504—a mutiny. It was inspired by two brothers named Porras, who were joined by 48 disloyal men and boys. Hoping for their own escape to Hispaniola, the band fled eastward in 10 canoes, robbing Indians and discrediting Columbus along the way. Their efforts on the open ocean, however, were fruitless, and they were driven back to the north coast of Jamaica, where they established a camp and proceeded to harass the natives.

Meanwhile, Columbus, seriously disabled and in pain from arthritis, and his loyal contingent of 50 men were approaching starvation as the Indians daily brought fewer provisions. In a desperate but inspired last effort, Columbus constructed a scheme for their salvation: noting from his almanac an impending lunar eclipse, he summoned the Indian chiefs, expressed his Christian god's displeasure over Indian's treatment of his followers, and foretold a grim fate.

The chiefs scoffed and departed; but, when the moon began to rise and, then, to disappear they returned, pleading for the Columbus' intercession to restore the moon, and promising to provide the supplies the seamen needed.

Near the end of March, a small caravel entered Santa Gloria/St. Ann's Bay, but the castaways' elation soon turned to despair when they learned that the ship had come, not to rescue them, but only to determine their condition, and leave a few token supplies. The ship's captain visited Columbus, conveying a message from Diego Mendez that a rescue party was still in the process of being formed. The ship sailed away that same evening.

Seeking then to mend the breach with the mutineers, Columbus sent messengers with a portion of the meager supplies to the Porras camp as proof of the caravel's arrival. Although they were offered a general pardon, the mutineers chose instead to attack the loyalists, who were commanded by Columbus' brother during a pitched battle near the beach. As the astonished Indians watched, the loyalists subdued the attackers, killing and wounding several. One Porras brother was captured and placed in irons, causing the remaining dissenters to submit.

After an enforced exile of a year and five days, the marooned sailors finally were rescued on 29 June 1504. Columbus and his crew departed for Hispaniola and Spain, leaving behind *Capitana* and *Santiago de Palos*, two of the oldest recorded shipwrecks in the Western Hemisphere, and the earliest European site in Jamaica.

Personnel

There were three categories of personnel involved in this study:

Archaeology Personnel: The INA Field Director, for five seasons, Roger Smith, is an acknowledged expert in 16th Century "Ships of Discovery". He was assisted by INA staff member KC Smith, dive master Marko Manicetti, conservator Ted Keros, and archaeology graduate student Bonnie Foster. They were all skilled in some aspect of underwater archaeological techniques, ranging from conservation of recovered artifacts to pottery analysis. In addition consulting geologists and other specialists were brought in as needed.

Parapsychology Personnel: Mobius' Chairman and Research Director, Stephan A. Schwartz, and its Executive Director, Randall J. De Mattei, coordinated the Mobius consensual Remote Viewing methodology described in this paper, including the field phase in 1985.

Remote Viewers: Eight men and women were selected as Remote Viewers in this experiment. They can be described as follows, and are defined under the Personality Assessment System (PAS) (Winne & Gittinger, 1973) with subscript addition by Saunders (1985), as:

- R-1: Judith Orloff, M. D., female, 35, board certified psychiatrist. She is defined under PAS as an IFU3. R-1 had never been to Jamaica.

- R-2: Hella Hammid, female, 64, fine arts photographer, defined under PAS as an ERA8. R-2 had never been to Jamaica.

- R-3: John Oligny, male, 44, staff photographer for a major western daily newspaper. He is defined by PAS as an IFA8. R-3 had never been to Jamaica. Participated in the Mobius field team.

- R-4: Ben Moses, male, 44, feature film producer and documentarian. He is defined by PAS as an EFU6. R-4 had never been to Jamaica.

- R-5: Alan Vaughan, male, 50, author, psychic, lecturer, and parapsychological researcher. R-5's research work has primarily been in dreams and precognition. He is defined by PAS as an IRU2. R-5 had never been to Jamaica. Participated in the Mobius field team.

- R-6: Andre Vaillancourt, male, 36, musician and film producer. He is defined by PAS as an IRU6. R-6 had never been to Jamaica. Participated in the Mobius field team.

- R-7: Rosalyn Bruyere, female, 36, director of a healing outreach clinic. R-7 had earlier participated in healing studies. She is defined by PAS as an ERU6. R-7 had never been to Jamaica.

- R-8: Ann Druffel, female, 61, author and a research assistant at Mobius. She is defined by PAS as EFU8. R-8 had never been to Jamaica.

These eight individuals were selected on the basis of past performance in other experiments. They volunteered approximately two hours of their time, for which they received no fee.

Previous Archaeological Field Effort

Archival Research, Electronic Remote Sensing, and Geological Coring:

Formal research to find the lost caravels of Columbus' fourth voyage began in 1935, with the work of amateur archaeologist William Goodwin, who searched in Don Christopher's Cove next to St. Ann's Bay. Goodwin made 150 test holes before giving up. Samuel Elliot Morrison led a harvard University expedition into St. Ann's in 1940. He believed Goodwin had not properly considered the narrow shape and shallow water of the Cove, and that St. Ann's was a far more likely to have been the site chosen by Columbus, particularly the western section of the bay, where deep tranquil water came up close to the shore.

Fig. 3: The Search Area: St. Ann's Bay, Jamaica, where Columbus and his crew abandoned *Capitana* and *Santiago de Palos* in 1504. Looking east.

In the mid 1960s, Robert Marx visited St. Ann's Bay, and probed the mud at the site favored by Morrison. Fragments of wood, stone, ceramics, and obsidian turned up. Two years later Marx returned, this time accompanied by Harold Edgerton, who conducted a sub-bottom sonar survey and turned up several targets in the bay. Core samples, in the area previously probed, yielded additional material. This material was examined in several laboratories and the samples were judged to be of different dates. The range, however, did not preclude at least some of this material having come from Columbus' ships. A sonar target suggested that the other ship might lie nearby. Marx urged the Jamaican government to pursue the excavation of this target and, with international support this was undertaken. In 1969 during a several day dredging operation veteran French diver Frederic Dumas located ballast stones and artifacts, including wine bottle bases, and mapped the area. Analysis of this material dated much of it to the 18th century, and the site was abandoned as a possible location of the caravels.

In 1981, Smith and geologist John Gifford carried out the next phase of the search. Using all available historical documentation, they attempted to reconstruct the ancient shoreline, and theorized that because of the changes that had occurred over time, the sites might lie under the present day beach.

Commencing in June 1982, this relatively small, enclosed bay (see Fig. 3) was also subjected to rigorous and comprehensive electronic remote sensing surveys. Sub-bottom penetrating sonar was employed to detect targets buried under the seabed. A magnetometer survey of marine and coastal portions of the bay followed, to distinguish magnetic anomalies associated with shipwreck debris. Geological core testing was carried out and core samples were analyzed to narrow the possibilities for test excavation. Standard underwater excavation techniques were used to test limited areas of detected sites; small, sunken caissons were employed in parts of the bay. None of this fieldwork produced the discoveries sought.

Fig. 4: Remote Viewer Alan Vaughan, center, provides field guidance to Roger Smith, INA Archaeological Director, right, and Stephan Schwartz, left, Mobius Research Director.

Remote Viewing Protocol

In March 1985, Mobius was contacted by nautical archaeologist Roger Smith of INA. Smith wished to explore a joint effort, using Mobius' Remote Viewing approach, to locate Columbus' two caravels. Even though his previous fieldwork had been unsuccessful, Smith was still convinced, from his historical analysis, that St. Ann's Bay remained the Search Area, and proposed that Mobius survey it. From 29 July to 2 August, Mobius carried out a Remote Viewing survey from Los Angeles, using a previously reported methodology.[5] Following this, Schwartz and De Mattei, and three Remote Viewers, Alan Vaughan, André Vaillancourt, and John Oligny traveled to Jamaica for 12-days to work with the INA team.

Procedure

The steps in the Consensual Methodology were:

1. INA provides blank chart

2. Remote Viewers are assigned an R-number, e. g., R-1, R-2, by which they will be designated

3. One of two Interviewers assigned to each Remote Viewer

4. Tape-recorded interviews

5. Transcribe taped interviews

6. Break down transcripts into concepts

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5   cf. Schwartz, 1978, 1979, 1980a, b, c, d, 1982, 1983, 1984, 1985.

7.   Produce Numbered Concept Transcript and file for loading into custom database program

8.   Code and sort concepts by category, producing Breakdown by Concept Category document

9.   Produce Master Composite Field Chart

10. Develop hypotheses for fieldwork follow-up

11. Store all data in a vault, outside of Mobius' control, to assure unimpeachable chronology of prediction, field work and analysis of results

12. On-site confirmation, development of additional land-sites data

13. Fieldwork by INA, joined for 12 days by Mobius

14. Preparation of Evaluation Feedback Document

15. Evaluation of individual concepts, and locations

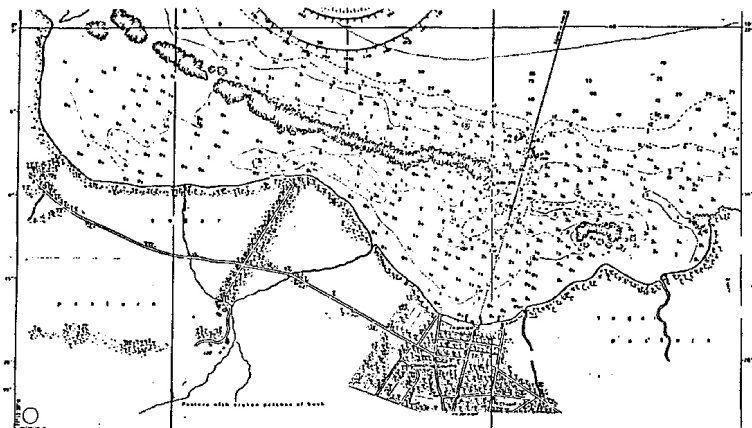16. Preparation of final report

Fig. 5: Reduced size copy of map used by Remote Viewers. Note absence of place names, colors.

The Chart

In August 1985, Smith provided a photocopy of a standard sea chart from which most location detail had been stripped, and the scale deleted. A partial compass rose allowed magnetic North orientation (see Fig. 5). The master was photocopied and a fresh copy was used for each interview.

Interview Sessions

Beyond the blank chart, Schwartz and De Mattei requested no information about the area, or the caravels and, later, in the field, Smith was at pains to see that no inadvertent cueing took place. The information in "Introduction and Overview" above was provided *after* the fieldwork had been carried out. Individual interviews were conducted with each of the Remote Viewers.

Fig. 6: Typical Remote Viewing session drawing.

In order to avoid possible subtle biases that might lead to cueing, the interviews were split between Schwartz and De Mattei. Both interviewers were blind to the results of those interviews in which they did not participate, until all interviews had been completed. Remote Viewers were blind to all but their own session. Interviewers were also ignorant of specific factual details concerning the project, beyond the names of the ships, the fact of their abandonment, and the date this occurred. Once locations had been made, drawings were solicited (see Fig. 6) and comments about geography and geology were requested, to aid divers in their later searches. When mention of specific objects was volunteered, viewers are asked for details.

When all sessions were completed, the charts were put on a light table and aligned in register, one by one, with the developing Master Composite Field Chart (see
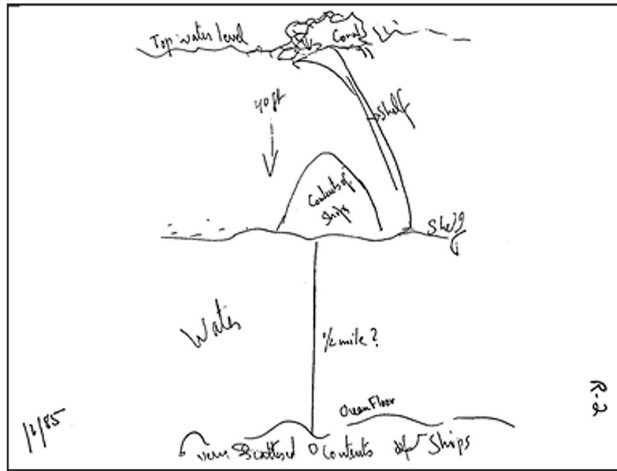

Fig. 7: Master Composite Field Chart. Each circle or X is an individual viewer. The vertical rectangle is Consensus Area I. The circle to the immediate right is the single viewer area searched. The notation "1041 x 541" is the area of the actual targets within the rectangle.

Fig. 7). In this way within the original Search Area primary target sites emerged as clustered or overlapping circles. One cluster was the obvious primary focus. It was designated Consensus Area I. A lesser cluster became Consensus Area II.

Transcripts

The individual session tapes were transcribed into a computer word processing file. A copy of these raw transcripts was then manually edited to produce a second version, in which sentences were broken into discrete concepts and marked for coding. Non-pertinent conversation, e. g., "Could you change the blinds," or "ah ..." were left without numerical coding. This version was then saved as a series of ASCII files and ported over to a custom Fortran™ program which automatically assigned each discrete concept a unique alphanumeric designator, beginning with the first concept of the first interview and proceeding sequentially to the last concept of the last interview. In this way, each concept can be identified, as well as its place in the sequence of all concepts advanced during the interviews. Previous experience has suggested that there is a carry-over from one session to another, through some unknown mechanism, and that on occasion an image from one viewer in one session will be developed further by another viewer in another session. Sometimes an expansion occurs before the initial concept, as such, has been introduced. This concept breakdown process can be seen in the following example: "I think there is a ship completely broken up, and buried under sand, and there is a coral head sticking out of the water there."

> *R-1: <1>   I think there is a ship*
>
> *R-1: <2>   completely broken up,*
>
> *R-1: <3>   and buried*
>
> *R-1 <4>   under sand,*
>
> *R-1: <5>   and there is a coral head*
>
> *R-1: <6>   sticking out of the water there.*

The encoded transcript for this experiment, with its accompanying charts and drawings, is the basic pool of data from which all subsequent analyses are drawn. For The Caravel Project, 1012 coded concepts were proffered by the eight Remote Viewers.

Breakdown by Concept Category

Beyond location, the basic task of Mobius' consensual methodology is pattern recognition, that is, the extraction of the common, and presumably the most probably accurate, patterns from the varying descriptions offered by the individual viewers. Attention is also paid to observations that have a low *a priori* probability of occurring in the context of the interview. This analysis task is similar to that carried out by any field investigator, whether sociologist, anthropologist, journalist, or law enforcement officer when attempting to winnow accurate information from reconstructions provided by informants or witnesses. As with eye witnesses, or cultural informants, Remote Viewers can not help but filter their perceptions through their own personal interests and biases. It is a given that they will not be entirely accurate. They do not see everything, and various aspects of the total picture hold greater interest for them than others. They unconsciously provide "bridges" to make logical order out of the disparate images they do perceive. For this reason, again as with eye witnesses, it is important to determine where the Remote Viewers agree, and to give more weight to areas of high consensus.

The numbered transcripts are ported over from the custom Fortran™ program into a custom database written in Double Helix™. A concept category outline is created which encompasses all the comments coded in the transcript. The Concept Category headings of the outline emerge from the transcripts themselves, they are not imposed; thus, the structure of the datasets is unique to each project.

Physically working together, as a unified team, the INA and Mobius groups jointly evaluated each concept in turn and assigned it to a category. In order to make this consensus as complete and useful in fieldwork as possible concepts were sometimes assigned to more than one category, i.e. a "Bottom Feature" concept may also be listed in "Geology," although remaining a single concept for accuracy evaluation. This project developed 10 distinct headings: "Remains," "Bottom Features," "Overburden," "Events Subsequent to Abandoning Ships," "Position of Ship Remains," "Differentiation of Two Ships," "Geology," "Roger Smith, Archaeologist," "Comments re: Project," "Other and Miscellaneous." Each of these, in turn, was broken down into a varying number of subheadings which, again, were created from, not imposed upon, the data in the transcripts, e.g., "2.0 Bottom Features," "2.1 Bottom," "2.2 Shelf/Slope," "2.3 Depression/Deep Spot," "2.4 Sea Life," "2.5 Currents" (see Table I).

Using the category headings and subheadings, the Breakdown by Concept Category document, was prepared in a custom program written in Double Helix™. It is this compilation which reveals the levels of consensus amongst Respondents, and which is used to guide subsequent fieldwork.

Remote Viewing Fieldwork

While in Jamaica, additional Remote Viewing was proffered by the three viewers in the Mobius team. Over several days Remote Viewers were taken out one at a time, in a small boat, and asked to intuitively guide the boat to the location they had previously marked on the chart —without looking at the chart. This was successfully accomplished. They were also asked, or volunteered, new or additional material concerning sites on land. Much of the information from these Remote Viewing sessions in the field seemed plausible to Smith but, as of this writing, the fieldwork to confirm or refute this information has not been carried out, and so it is not included. For parts of the 12 days while the Mobius team was in Jamaica, search dives were carried out. During one of the search days, Schwartz accompanied the team to get a sense of the search parameters, and to visually inspect certain locations that had been made, and to check Remote Viewing descriptions against the actual marine geography. This work continued for several weeks after Mobius left. In a typical survey dive, three divers swam abreast, linked by a rope, moving across and above the sea floor at a height of approximately three feet. Discovered artifact or ship material, or predicted marine geography, was studied more closely, tagged and followed up as indicated. Underwater visibility in the Search Area was typically about eight feet.

Evaluation Feedback Document

A year later, after the 1986 fieldwork season was completed, Smith carried out the expert evaluation necessary to establish accuracy levels. His ratings are based on more than a decade of research on 16th Century "Ships of Discovery" in general, and specifically his work on this project. He had been responsible for preliminary historical research, had overseen all collateral research by geologists and other consultants, and had personally spent five summer seasons on site in St. Ann's Bay searching for the remains of the Columbus caravels.

Smith was given by Mobius copies of all documentation, drawings, and charts, as well as the blank Evaluation Feedback Document (EFB) and the following written instructions:

> The statement codings in this evaluation report correspond to the original transcript codings for the eight respondents participating in The Caravel Project; i. e., <0020> R-1: Every coded statement is to be marked with one of four evaluations:
>
> > *Correct (C)*
> > *Partially Correct (PC)*
> > *Incorrect (IN)*
> > *Not Evaluable (NE)*
>
> Where you have data, through historical or field research and experience, the first three choices apply. A statement should be rated "Not Evaluable" if: 1.) material covered is

unknown to you; 2.) the described area has not been explored to a degree which allows a conclusive statement; 3.) a predicted find or event has not yet occurred; 4.) the statement is not one of fact, i. e., simply a comment such as, "That's how it feels." Use your best judgment, remembering the more that can be evaluated the more accurate the analysis.

In the References and Comments section of each page please list specific references and, where possible, include photographs and sketches. These references are very important, and your extra effort in generating them is much appreciated. Also, the copies of the transcripts which were left with you in Jamaica carried some reference notes by your team recorded during the Breakdown & Analysis session. Would you please incorporate those notes in this feedback document?

Many of the respondents' statements are descriptions of the area surrounding the targeted ship remains. Sometimes the respondents first give their impressions as a remote viewing, without referring to the chart. Often descriptions are offered in reference to a particular site the respondent has marked on the chart, and many of the respondents marked multiple locations. Clearly, this evaluation could be multi-dimensional, and could easily become too complex. Seeking a balance between an acceptable level of thoroughness and reasonable simplicity in handling, we have chosen a two-level approach.

A subset of the statements has been specially coded, and is to be evaluated in relation to the primary consensus area—the channel opening of St. Ann's Bay. These statements are preceded with a "C", i. e. C<0020>. In the vast majority of cases these "C" statements are repeats of the standard coded statements such as, <0020>, so that you are evaluating the same statement twice; once relative to the consensus zone, and once for another area. Respondents 1 & 3 have only one site marked outside the consensus area so the question of which to use for evaluation should be clear.

For an example, reference R-1's chart (addendum to TRANSCRIPTS document). He has two marks, one in the consensus zone and a second outside the reef to the west. Statement <0020> "And there is a lot of rubble around them," would be evaluated against the X'd circle, and C<0020> against the circle in the channel opening.

Respondents 2, 4, 5, 6, 7, & 8 have more than one mark outside the consensus zone. If it is clear from the context which mark is being spoken of, evaluate the standard (non-"C") coded statement against that area. If it is ambiguous which site corresponds to the statement, or if remote viewing images of the site are being offered without referring to a chart mark, use the following designated sites for your evaluation (reference charts —addendum to TRANSCRIPTS document):

R-2: circle #2 in the eastern bay; R-4: mark on the coral island in the eastern bay; R-5: the marking on the shoreline showing just northeast of St. Ann's on the chart (on the second of R-5's two marked charts); R-6: X'd circle IA just outside and west of the channel opening; R-7: land site near New Seville; R-8: "Ship 1" circle on reef near the Blue Hole.

Smith's feedback on the EFB provides the assessment of the accuracy of the Remote Viewing data in areas where a statistical probability analysis was either not possible or appropriate.

Results

Location: Within the 4.35 square mile Search Area previously defined by the INA Archaeological Director, magnetometer survey, aerial photography, sub-bottom sonar, and geological coring, had
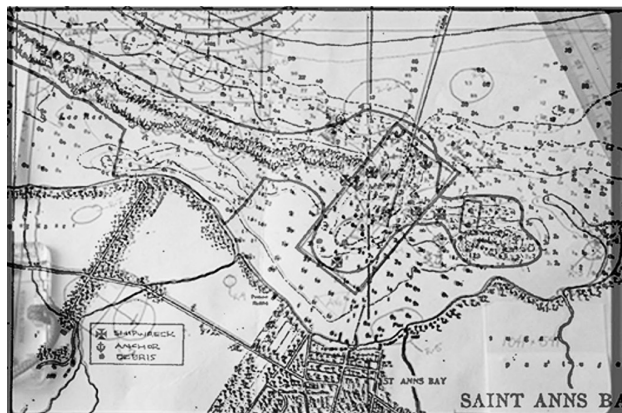

been unrewarding. Remote Viewing, prior to, and after the Mobius teams coming to Jamaica selected, and then confirmed on-site, an area of 1041 feet x 541 feet = 0.02 sq. miles as the area where finds would be made. The discovery of artifact and ship remains were made within the Remote Viewing predicted areas, and nowhere else, although substantial areas outside of the Remote Viewing locations were searched. As described and located by the Remote Viewers, a previously unknown shipwreck was found in Consensus Area I.

Fig. 8: The Master Composite Field Chart overlain by the Evaluation Feedback Document Chart. The slightly out of register quality is an artifact of the angles at which the two images were taken.

One viewer also provided a much smaller location site which, on the basis of initial success in Consensus Area I, was also pursued, with good results. Two other small single viewer sites were unproductive. A second Consensus Area because of time and sea conditions was not searched. Visual diver inspection was the confirming source of each location prediction. To calculate the probability of selecting these locations by chance within the Search Area, consider the finds reported as a cell in a grid of 217 similar cells. The probability of finding this one $p = 0.0046$, which strongly suggests that chance is not an explanation for the locations. The much smaller location of material on the north side of the bay's outer reef, as predicted by one Remote Viewer would, correspondingly, be even more improbable. Some of these remains are from unidentified ships of a period later than the Columbus wrecks, but much of the debris is unidentified, even as to period. Ultimately, for reasons unrelated to Remote Viewing, identification of *Capitana* and *Santiago de Palos* may never be achieved. These fragments, although significant parapsychologically, may not be able to answer in an absolute way the question of where the caravels are located.

Description and Reconstruction: Smith evaluated all 1012 concepts, giving ratings of "Correct," "Partially Correct," or "Incorrect" to 445 of this number, or 45 per cent of the total. The 1012 concepts from the Interview transcripts were sorted into 10 categories which constitute the heading framework for the Breakdown by Concept Category section. The 10 category headings, and the

sub-categories of which they are comprised, are shown in Table 1 along with the counts for: Number of concepts in the category heading (shown as #); number which were "Correct" (C); "Partially Correct" (PC); "Incorrect" (IC); and "Not Evaluable" (NE). It should be remembered that 191 concepts were assigned to more than one category; for a total of 1203 concepts in this table.

No. Concepts	correct	part. corr.	incorr.	non-eva-luable	Concept Category
312	26	35	53	198	1. REMAINS 1.1 Wood; 1.2 Metal; 1.3 Frame/Ribs/ Beams/Hull/Mast; 1.4 Percentage Intact; 1.5 Debris; 1.6 Spheres; 1.7 Shapes/Form; 1.8 Overall Appearance (Location); 1.9 Artifacts/Cargo
178	48	46	23	61	2. BOTTOM FEATURES 2.1 Bottom; 2.2 Shelf/Slope; 2.3 Depression/ Deep Spot; 2.4 Sea Life; 2.5 Currents
52	9	9	2	32	3. OVERBURDEN 3.1 Coral; 3.2 Sand; 3.3 Mud/Silt
50	7	6	8	29	4. EVENTS SUBSEQUENT TO ABANDONING SHIP 4.1 Storm/Hurricane; 4.2 Fire; 4.3 Land Movements (Seismic); 4.4 Water Movements
148	39	27	15	67	5. POSITIONING OF SHIP REMAINS 5.1 Shore Distance; 5.11 Underwater/Underground; 5.12 Reef; 5.2 Site Size; 5.3 Depth; 5.31 Clear Water; 5.32 Dark Water; 5.4 Distance Between Ships
44	3	3	4	34	6. DIFFERENTIATION OF TWO SHIPS
56	12	6	1	37	7. GEOLOGY 7.1 Shoreline; 7.2 Underground Water; 7.3 Salt
87	30	23	15	19	8. ROGER SMITH, ARCHAEOLOGIST 8.1 Physical Description; 8.2 Other Comments
40	5	3	7	25	9. COMMENTS RE; PROJECT 9.1 Difficulty/Ease; 9.2 Outcome
236	36	18	17	165	10. Other & Miscellaneous Comments
1203	215	176	128	667	TOTALS

Tab. 1: Accuracy by Concept Category

Fig. 9: Ballast stones in Consensus Area 1

The Concept Categories, as shown in Table 2, can be further considered in terms of percentile accuracy. Of the 45 per cent of the data which could be evaluated, the overall accuracy rating for all Respondents and all concepts is 40 per cent "Correct," 33 per cent "Partially Correct," 27 per cent "Incorrect." The "Hit Rate" (combined "Correct" and "Partially Correct") is 73 per cent.

Under the 10 categories, the category with the highest percentage of evaluable material concerns "Bottom Features," at 66 per cent. The lowest is "Differentiation of Two Ships," at 23 per cent. It should be borne in mind that there is an inherent skew to this portion of the data because the originating request from Smith focused on location and descriptive material which could be used to guide the on-site search team. Initially, there was much less interest in historical reconstructive data.

Next, as shown in Table 2, the data can be taken from collective performance to individual results by Remote Viewer. The "Hit Rate" for each is:

Remote Viewer	„Hit Rate" per cent
R-1	89
R-2	65
R-3	76
R-4	57
R-5	86
R-6	67
R-7	71
R-8	67

Tab. 2: "Hit Rate" per Remote Viewer

Discussion

An overall comparison of the concept categories reveals that there are clear patterns to the results. Without exception, categories which describe specific physical details score higher "hit" rates than more problematical issues, such as predictions about the outcome of the experiment. It is hard to infer much from this, however. This group of Remote Viewers is particularly involved with standard laboratory remote viewing experiments and, to an unknown degree, they have conditioned themselves to the kind of concrete observations that will meet the needs of descriptor list computer judging. Also this is only a single experiment. Still, the more concrete and immediate the target, the more detailed and accurate the images. Our belief is that if this is more than an artifact, it may reflect the issue of intent.

We construct our experiments as if we were building a kind of bio-circuit in which each individual is a component in the circuit, and all participants are linked by their common intention to first participate in the experiment and, then, to find the ships. The idea of Observer Effect is increasingly discussed in disciplines from physics to medicine, yet the question of intention, and intentioned awareness—awareness within a numinous context—receives little consideration. Strange, since Observer Effect is an expression of intentioned awareness, i. e., not just awareness but awareness formed by purpose and emotion.

It is beyond the scope of this paper, or even this line of research, but we believe the study of intention would be a very productive line of laboratory research.

This experiment also clearly illustrates why these kinds of Remote Viewing experiments are inherently interdisciplinary. Without the help of specialist consultants, the line of research comparing Remote Viewing and various kinds of electronic remote sensing would not have been possible. This is our fourth experiment in which Remote Viewing has produced results when electronic surveillance has not.

Anyone less knowledgeable than Smith about 16th Century "Ships of Discovery" would not have been able to achieve the same nuanced level of evaluation concerning the description and reconstruction categories. Small details, such as the color of a piece of metallic hardware, which would be meaningless to even many archaeologists, provided dating and ship type information to Smith. Clearly, the insights and skills an evaluator brings to the task of judging concept accuracy is significant, and quality critical to an experiment of this type.

For all that, Smith was only able to assess the accuracy of a minority of the material proffered —45 per cent. Fifty-five per cent of the concepts were marked "Not Evaluable." In part this is because some of the 55 per cent was inherently untestable—points which speak to personal beliefs, or some trivial event that history does not record. But much simply goes beyond the ability of the current state of archaeological technique to address. There is also the question of

the physical demands placed on the researchers doing the underwater search. Specific bottom details, for instance, that could be right, might not be found because searching the sea floor at depths of up to 80 feet is a demanding and imperfect art, rarely truly complete.

In spite of these limitations the evaluation of this data is perhaps the most complete ever achieved in a triple-blind applied experiment of this type. It is because of this completeness that actual data can be used to address the *a priori* probability question.

The idea that the "hits" seen in this experiment can be explained on the basis that diving anywhere would have produced finds; or that the remote sensing descriptions could have been applied anywhere in St Ann's Bay; or that the historical reconstructions were just general "sea stories," is not supported by the evidence, or INA's years of searching. The result is that observations which, on the basis of just the description, might seem commonplace actually can present a very low order of probability, when considered within the limited Search Area. Examples of this point can be seen in this extract from the transcript along with Smith's evaluation notes in italic.

> 5.12 REEF
>
> 69 R-1: Here I am, standing above the water, looking that way and seeing just a little earth rise above the water, like a flat island. *[Smith: "Flat island, in-shore reef"]* 70: Not mountainous, no mountains. Flat, and it comes up like that and it just slopes over very gracefully. A low lying island. *[Smith:: "Low lying island"]* 72 And it's not populated at all. *[Smith: "Not populated"]* 73: It's just this brown, earthy mass that comes up out of the water. I could see it under the water, too. It goes down real far. *[Smith: "Brown's right color for submerged coral"]* 74: Under the water. It goes… how do I describe it? I could see it on top of the water, and I can see it on the bottom of the water going down, deep. It's like an underwater mountain that is coming up a little bit above the water ... you can see part of the land. But most of it is underwater. *[Smith: "Good description of reef or channel drop-off"]* 75: I don't know. I'm seeing a large mass of land that is stuck in the water. 84: A receding island … *[Smith: "Low tide on island reef looking left."]* 87: ... and real skinny birds land there. Perch on this low lying land mass … these white birds with real skinny feet, and tall legs. *[Smith: "White egrets on grass at low tide." Uncanny descriptions, good examples of Remote Viewing. Seen outside of the context of the specific marked location, this description might seem general to the Caribbean. However, within the location context this visual description is correct and unique in St. Ann's Bay. There is no other place where 'white birds with skinny legs…' (actually egrets) land, nor with a matching geography in reference to both birds and view."]*

It can also be seen in the historical reconstruction material:

> 4.3 LAND MOVEMENTS/SEISMIC
>
> 12 R-1: And there is something about almost an underwater movement, almost like an underwater tidal wave that moved everything further away from its original place where it

was at. And it didn't necessarily affect the land; it had to do with the water substance where there was a major shift in the water. *[Smith: "Five Tidal Waves in 6 hours, 1692"]* 124: To find this ship you are going to have to know somebody who knows a lot about shifts of the earth … and what happens to ocean space when you have a shift of the earth and you have the ship underneath the space, after the land has moved. What type of person would that be? *[Smith: "Shifts in Earth 1692 and gradual changes. A geologist."]* 127: But there's some kind of shift that happened in the land here, at some time period in the past 400 years. *[Smith: "Land Shifts"]*

515 R-4: Like this must be … just below water … or just above, sometimes, and below other times. *[Smith: "Reef is alternately dry and wet"]*

925 R-7: In the inner hold. There's something that they had picked up somewhere else and carried to this location. So they'd already made a stop somewhere for either supplies, or trading, or something. I don't know what … that's also with this stuff. I can't figure out what happened to the other mast and the other two-thirds of the ship. Oh, they were sitting together on a rather sandy bottom and there's some kind of seismic activity … *[Smith: "Seismic Activity earth quakes 1692."]* 934: That's interesting, because this area apparently is not known for seismic activity. Somewhere in 1650, roughly, there was some kind of seismic activity in this bay that … *[Smith: "Earthquakes 1692"]* 935: Changed things. Must have changed the geology of the island, too. The water table, or something, shifted at the same time. It's what that salt layer's from. You see, I couldn't figure out why the island hadn't eroded. It didn't make any sense to me. *[Smith: "Ground opened up, tidal wave"]*

4.4 WATER MOVEMENTS

12 R-1: And there is something about almost an underwater movement, almost like an underwater tidal wave that moved everything further away from its original place where it was at. And it didn't necessarily affect the land; it had to do with the water substance where there was a major shift in the water. *[Smith: "Five Tidal Waves in 6 hours, 1692"]*

344 R-3: ... and it has to do with the way the currents are moving through this area. *[Smith: "Currents in channel are back and forth, in and out"]*

This experiment with the Institute for Nautical Archaeology continues Mobius' long-term multi-experiment comparison between Remote Viewing and a variety of electronic remote sensing technologies. In every instance, Remote Viewing performed more productively. To use but one example, specific predicted ferrous objects, including the remnant of an anchor lodged halfway up the coral reef in Consensus Area 1, had not been detected during the electronic remote sensing. It seems to us that a direct comparison study specifically designed—as this study was not—to measure similarities and differences between electronic remote sensing and Remote Viewing would be a worthwhile effort.

Although it is clear that Remote Viewing can, and has, paid off producing successes where other search techniques have failed, we continue to believe that the best way to employ it is in

conjunction with other survey technologies. There is a synergy that occurs when Remote Viewing sense perceptions are added to the dataset that has a value in its own right. The Remote Viewing scenarios suggest new ways of looking at old data, and open new avenues of inquiry, quite apart from the factual accuracy of any given datum. Remote Viewing broadens our spectrum of perception, and produces a more nuanced understanding of a site and the artifacts it contains.

The choice of locations made by the Remote Viewers suggests something about the data source in this experiment. If telepathy was the agency whereby the information was obtained, then the Remote Viewers would look to Smith and not the Interviewers as the source of information. The Interviewers had never been to the area, and knew little more about it than the Remote Viewers themselves. Smith, in contrast, was essentially unique in his richness of knowledge about Columbus, caravels, Columbus' fourth voyage, and St. Ann's Bay. If Smith had been the source, the Remote Viewers would almost surely have marked not the seafloor, but the shore, for that was the location he strongly favored. All during the chart phase of the experiment, and until well into the fieldwork phase, long after all Remote Viewing data had been logged in with Smith and the others in the INA group did those in the Mobius team learn that INA had been exploring not the sea but a land site, which they were convinced was more probable.

As already noted, the whole scenario concerning Consensus Area 1 was very much at variance with the INA analysis. While Smith could understand the abandoned caravels being washed out to sea, instead of being on land as he had thought, he could not accept the idea material was lodged in the coral of the breakwater reef as predicted by Remote Viewing. He considered the idea so unlikely in fact that, except for the electronic remote sensing surveys, Consensus Area 1 had never been visually searched.

Smith's lack of experience in Consensus Area 1 adds a second dimension to the non-telepathy model. Because he considered it so unlikely as a wreck site, Smith knew relatively little specifically about the area. In that sense, like the interviewers he was "blind" and could not have telepathically been the source for the Remote Viewers' detailed observations.

In laboratory experiments photographs are often used as targets, and there are questions as to whether the viewer is going to the target itself, or the photograph. In this case Smith had no photographs. The physical descriptions of low tide, when it was low tide, also suggest that the viewer is in contact in some way with the actual place.

Those familiar with the Remote Viewing research carried out at a number of laboratories will note that the perceptions proffered in The Caravel Project are similar in quality and style to those seen in other Remote Viewing protocols, including the drawings. This suggests to us that this imagery is continuously available to an individual, and that what brings it into awareness is intentioned focus. The questions direct the intention.

Stanford offered a theory of psi in 1974, known as Psi-Mediated Instrumental Response (PMIR) that postulates that:

> In the presence of a particular need, the organism uses psi (ESP), as well as sensory means, to scan its environment for objects and events relevant to that need and for information crucially related to such objects and events. (Stanford, 1974: 43)

In this case there was no intellectual sensory input but a standard, blank sea chart. But there was a strong "need" for a successful experiment which would stand up to criticisms not even anticipated when the questions were formed. Perhaps this is why several individuals consensually picked the *same* improbable target areas.

Laboratory experiments also produce percentages of material that can and can not be evaluated, just as in an applied research. However, the targets are much better defined in a laboratory experiment and, consequently, as expected more data should be evaluated. This proves to be the case, although we feel the relative percentages are symmetrical in both instances.

Targ, Puthoff, and May at SRI reported:

> Analysis of remote-viewing evidence transcripts generated by experienced subjects indicates that for a given target site, roughly two-thirds of the subject-generated materials constitute an accurate description of the site, while about one-third is ambiguous, general, or incorrect. (Targ, Puthoff & May, 1979: 96)

Like Mobius, they also observed that "(r)edundancy, whereby more than one individual attempts to collect data on a given target, improves reliability by reducing the effect of the biases of individual subjects (ibid.).

This can be clearly seen by considering the three single viewer sites that were explored. Only one was productive, in contrast to the Consensus Area I cluster.

Finally, we think it is worth noting that this experiment suggests that even an essentially skeptical archaeological team can work within the parapsychological context, and that the outcome represents something neither discipline alone could have achieved. Without Remote Viewing the sites would not have been found. Without nautical archaeology the Remote Viewing data could not have been effectively analyzed.

Subsequent Fieldwork

In 1990–1991 and, again, in 1995 the St. Ann's Bay was resurveyed.[6] In the 1990–1991 effort, Project Director James Parrent "elected to employ a combination of remote sensing devices in order to locate buried shipwreck sites in St. Ann's bay" (Neville et al., 1991). Using an even more advanced sonar sub-bottom profiler developed by Steven Shock of Florida Atlantic University and Lester LeBlanc of Rhode Island University this new towable equipment was pulled in a pattern across the bay, during the course of two surveys conducted in October and November 1990 and from June through August 1991. These surveys "graphically display(ed) objects beneath the sea floor down to a depth of 36 feet" (ibid.). A marine and a land magnetometer survey were also conducted (ibid.). Sites were additionally tested with probing by steel rods. The result was that 27 sites were identified, and 11 locations were selected for test excavations (ibid.: 152).

This work found further materials in the Consensus Zone I, as well as at several sites selected by single Remote Viewers, during the course of Mobius' work years earlier. A rough evaluation is all that has been possible to date, but it is already clear that material judged by Smith to be "Non-evaluable" actually now ought to be moved to the "Correct" and "Partially Correct" categories. Several deeply buried sites described by the viewers, which were beyond the scope of the Smith survey, have proved to be accurate depictions of what was found. Most intriguingly the new sites correspond with the locations given by the Remote Viewers.

What has not happened, after all this fieldwork, is the clear discovery of the sought for caravels. This suggests that the reconstruction of events provided by the Remote Viewers, of the ships being washed out to sea by a tidal wave is further confirmed. The descriptions plus the placement of Consensus Zone I in the cut breaking through the coral reef, exactly where material washing out to sea would be expected to lodge now seems apposite. Nothing in the subsequent fieldwork has emerged to contradict the Remote Viewing location and reconstruction data.

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6   The 1995 paper could not be obtained as this paper was being written but, it too, did not locate the caravels.

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Erweiterte Zusammenfassung

Das Columbus Caravels Project war ein mehrstufiges Forschungsprogramm, das darauf abzielte, von St. Ann's Bay/Jamaika aus die Überreste der letzten beiden Schiffe von Columbus, *Capitana* und *Santiago de Palos*, zu lokalisieren und Grabungen durchzuführen. Nach einem erzwungenen Exil von einem Jahr und fünf Tagen wurden Columbus und seine abgesetzte Besatzung schließlich am 29. Juni 1504 gerettet. Sie reisten nach Hispaniola und Spanien und ließen zwei der ältesten dokumentierten Schiffswracks der westlichen Hemisphäre und den frühesten europäischen Standort in Jamaika zurück. Das Caravel Project wurde 1982 vom Institute for Nautical Archaeology (INA) in Zusammenarbeit mit dem Institute of Jamaica organisiert. Die Mobius Society beteiligte sich an der Suche während der Sommersaison 1985. Dieser Bericht stellt nur jene Phase der Arbeit vor, bei der Remote Viewing-Daten verwendet wurden, die einer Prüfung vor Ort unterzogen wurden, nachdem eine von Mobius entwickelte spezielle Analyse für den Einsatz bei der archäologischen Feldsuche verwendet wurde. Es gab zwei nachfolgende Erkundungen zur Bucht, auf die im Diskussionsteil ebenfalls eingegangen wird.

Standort: In einem Suchgebiet von 4,35 Quadratkilometern wurden während drei der Mobius-Untersuchung vorangehenden Saisons mit Magnetometer, Radar und Side-Scan-Sonar sowie Bohr- und Senkkastenaushub unter Wasser und an Land Materialien aus englischen Plantagen des 18. Jahrhunderts gefunden, einschließlich der Überreste zweier verlassener Schiffe. Bevor das Mobius-Team nach Jamaika kam, bestimmte eine Gruppe von Remote Viewern ein Gebiet von 317 mal 165 Metern = 0,052 Quadratkilometer als den Bereich, in dem die Funde gemacht werden können, und bekräftigte diesen dann vor Ort. Die Entdeckung von Artefakten und Überresten von Schiffen erfolgte innerhalb der mittels Remote Viewing vorhergesagten Bereiche und nirgendwo sonst, obwohl beträchtliche Bereiche außerhalb dieser Bereiche durchsucht wurden. Wie von den Remote Viewern beschrieben und lokalisiert, wurde in der Consensus Area I ein bisher unbekanntes Schiffswrack gefunden. Ein Remote Viewer wies auch auf einen viel kleineren Standort hin, dem auf der Grundlage der ersten Erfolge in der Consensus Area I ebenfalls mit guten Ergebnissen nachgegangen wurde. Zwei weitere kleine, von einzelnen Viewern angegebene Fundstellen brachten keinen Erfolg und stützten damit die Forschungsprämisse, dass von mehreren Viewern einvernehmlich vorhergesagte Orte eher erfolgversprechend sind. Eine zweite Consensus Area wurde aufgrund von zeitlichen Umständen und Meeresbedingungen nicht durchsucht. Die vorhergesagten Standorte wurden einer visuellen Inspektion durch Taucher unterzogen, um deren Richtigkeit zu überprüfen. Es wurden allerdings keine Ausgrabungen durchgeführt, obwohl die Remote Viewing-Ergebnisse darauf hinwiesen, dass die Überreste von Schiffen von mehreren Metern Ablagerungen bedeckt seien. Nachfolgende Expeditionen unter verschiedener Leitung machten dann entsprechende Entdeckungen. Um die Wahrscheinlichkeit zu berechnen, mit der diese Positionen zufällig innerhalb des Suchbereichs ausgewählt werden, kann man das Gebiet der gemeldeten Funde als ein Segment in einem Raster von 217 ähnlichen Segmenten

betrachten. Die Wahrscheinlichkeit, zufällig dieses Segment auszuwählen, beträgt $p = 0.0046$, was stark darauf hindeutet, dass das Finden dieser Standorte nicht auf Zufall zurückzuführen ist. Der viel kleinere Fundort von Material auf der Nordseite des äußeren Riffs der Bucht, der von einem Remote Viewer vorhergesagt wurde, wäre dementsprechend noch weniger wahrscheinlich zufällig. Einige dieser Überreste stammen von nicht identifizierten Schiffen aus einer Zeit nach den Columbus-Wracks, doch ein Großteil der Trümmer ist nicht identifiziert, selbst nicht hinsichtlich der Zeitperiode. Letztendlich mag es aus Gründen, die nichts mit der Parapsychologie zu tun haben, nie zu einer Identifizierung von *Capitana* und *Santiago de Palos* kommen, weil es an notwendigen Daten fehlt, um die Frage nach der Lage der Karavellen mit absoluter Sicherheit zu beantworten.

Beschreibung und Rekonstruktion: Remote Viewing beschrieb nicht nur die Lage, sondern auch die Unterwasser- und Oberflächengeographie des zu durchsuchenden Gebietes und lieferte beschreibende und rekonstruktive Daten über die dort befindlichen Objekte. Insgesamt 1012 per Remote Viewing gewonnene Aussagen (concepts) zu Fundorten, Beschreibungen und Rekonstruktionen wurden in Einzelinterviews von acht Remote Viewern generiert, deren psychologische Profile durch das PAS-System (mit der Saunders-Korrektur) definiert sind. Eine Bewertung der Genauigkeit der Renote Viewing-Daten wurde vom Leiter der archäologischen Felduntersuchung des INA durchgeführt, basierend auf durch archäologischen, geologischen und mittels elektronischer Fernerkundung gewonnenen Daten und historischen Analysen. Jede Aussage ist auf einer Vier-Punkte-Skala mit „richtig", „teilweise richtig", „falsch" und „nicht bewertbar" eingestuft. 45 Prozent der Aussagen wurden als bewertbar (also „richtig", „teilweise richtig" oder „falsch") eingeschätzt. Die Aussagen sind innerhalb eines Kategorienrahmens gemäß der beschriebenen Methodik angeordnet. Diese Studie enthält zehn Hauptuntergruppen von Informationen, die aus den Interviews mit den Remote Viewern entwickelt wurden. Die Kategorienbezeichnungen und archäologisch sinnvollen „Trefferraten", bestehend aus einer Kombination von „richtig" und „teilweise richtig", sind: „Überreste", 54 Prozent; „Bodenmerkmale", 80 Prozent; „Ablagerungen", 90 Prozent; „Ereignisse nach dem Zurücklassen von Schiffen", 62 Prozent; „Position der Überreste von Schiffen", 81 Prozent; „Differenzierung von zwei Schiffen", 60 Prozent; „Geologie", 95 Prozent; „Roger Smith Archäologe", 78 Prozent; „Kommentare zum Projekt", 53 Prozent; und „Sonstiges", 76 Prozent.

(aus dem Amerikanischen von Gerhard Mayer)