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SUMMARY AND CRITICAL EVALUATION OF RESEARCH IN REMOTE VIEWING

by

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FINAL TECHNICAL REPORT

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ABSTRACT

This report summarizes and critically evaluates all known, published and unpublished, research in the United States on "remote viewing." Particular attention is given to sources of inaccuracy, inconsistency, and misinterpretation of the obtained results. Based upon these evaluations, guidelines are suggested for improvement of the currently popular research protocol to develop an experimental approach acceptable to the behavioral science research community. This set of protocol recommendations addresses the areas of target selection, subject selection and treatment, experimenter and investigator knowledge and behavior, judging, and feedback.

KEY WORDS

Remote Viewing	Parapsychology
Paranormal Psychology	Extrasensory Perception
Clairvoyance	Psi

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

I. INTRODUCTION

Background

Interest in paranormal psychology has ebbed and flowed in many countries and many laboratories since the early 1800s. Several professional societies, a few scientific periodicals, a couple university departments, and a variety of popular publications have been devoted to the general subject matter. (4)

While numerous scientific investigations have been reported in various types of paranormal functioning, the field has also been plagued with constant criticising from the "harder" sciences, including the more conventional experimental psychology. To cast more doubt upon the claims of paranormal functioning, there have been several reported and verified cases of fraud and falsification of data. (4)

As a result, skepticism of paranormal claims is generally maintained by most scientists outside the field. Paranormal researchers have thus been placed in a position of distrust, doubt, and often considered akin to magicians, charlatans, and writers of fiction. In essence, the paranormal researcher has been asked to prove his results and claims far beyond the levels of acceptance required by researchers in other scientific areas. (4)

Recently, considerable attention has been given to research publications emanating from Stanford Research Institute (SRI) in the area of "remote viewing," a term used by Puthoff and Targ at SRI to describe their research in clairvoyant description of distant objects. Because these researchers are trained and recognized as "hard" scientists (i.e., physicists), they have achieved a much greater acceptance in some quarters than have the many researchers who preceeded them. Their publications in scientific journals

such as *Nature* and *IEEE Proceedings* have augmented this reputation. Finally, they have, through their many publications, stimulated related and replicative studies. (U)

Purpose

The SRI work, as well as that of others relating to their approach, has implications for covert intelligence information gathering. As a result, their research has been sponsored by several government organizations, both within and without the intelligence community. (S)

Puthoff, Targ, and their associates have not gone unchallanged, however. Reputable scientists have evaluated and often criticized their methods, analyses, claims, and results. They have responded to such criticisms, publically and apparently meaningfully. (U)

Thus, there exists a growing body of such "remote viewing" literature which has some very startling (to the nonbeliever) results, but which appears to be well planned and executed. Because the skeptics of these results are also vocal, quantitative, and respected in scientific quarters, the time appeared ripe to evaluate the bulk of this literature and to offer guidelines (to the sponsor (S) of this review) for future research, procedures, and possibilities.

Accordingly, the purposes of this report are as follows:

(1) Summarize all known controlled experimental research in remote viewing, at SRI and elsewhere;

(2) Evaluate this research in terms of the appropriateness of its methodology and conclusions; and

(3) On the basis of this evaluation, recommend experimental or procedural safeguards and protocols that should be followed in future remote

viewing research to gain the acceptability of the behavioral and physical science communities.(U)

Approach

Section II of this report summarizes and critiques the SRI research, largely because other studies are based upon this methodology. Published experiments are collected together by type and evaluated collectively.(U)

Section III similarly summarizes and evaluates all other research efforts, published and nonpublished, known to the authors. (Because the sponsor is less familiar with the non-SRI work, more detail is presented on these studies.) S

Section IV evaluates nine of the potential criticisms of the SRI and related results.(U)

Section V offers guidelines and recommendations for future research protocols and procedures, based upon the preceeding analyses and summaries. It is hoped that adherence to these guidelines will serve to reduce criticism of remote viewing research and to permit the scientific community to accept the results, positive or negative, more readily.(U)

Finally, it should be emphasized that this report does not, deliberately, address the question "Is remote viewing a *real* phenomenon or ability?" Rather, we are concerned with an evaluation and possible improvement of methodologies appropriate to study the remote viewing abilities of people. Adherence to the recommended procedures should permit a more valid answer to this question than can an analysis of existing data and publications. (U)

II. SUMMARY OF SRI STUDIES

Research in remote viewing at SRI was preceded by psychic research in psychokinesis and more conventional clairvoyance within the SRI laboratories. The major impetus for the remote viewing work occurred when a subject, Ingo Swann, suggested that the experimentation could be made more interesting because he could "look anywhere in the world if you just gave me some coordinates like latitude and longitude". (Targ and Puthoff, 1977, p. 27) S Initial "experiments" were done largely to placate Swann; however, when these were considered to be successful, more controlled experiments and a "standard" protocol were developed. The remote viewing effort was enlarged, various subjects were used, near and far targets were selected, individual success predictors were evaluated, and several sponsors supported the work. S

In this section, we summarize and evaluate the remote viewing work at SRI conducted by Puthoff, Targ, and their several associates. The individual experiments and groups of experiments are described only to the detail necessary to permit objective evaluation and comparison. The reader is directed to the various referenced sources for a complete description of the studies. (u)

To place the various experiments, references, and events in chronological perspective, we have compiled Table 1. Reference will subsequently be made to the entries in this table to show the temporal relationships among various SRI activities. Similarly, Table 2 should be used to locate specific sources of information or reports pertaining to the groups of experiments which will be discussed below. (u)

TABLE 1. CHRONOLOGY OF CRITICAL EVENTS IN SRI RESEARCH PROGRAM

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
1971	Harold Puthoff affiliates with Stanford Research Institute. (u)		
1972	Proposal submitted to Research Corporation for basic research into quantum biology; copy sent to Cleve Backster. (u)		Puthoff, H.E. Toward a quantum theory of life processes. (not in reference list)
March	Ingo Swann visits Backster's laboratory; sees Puthoff's proposal. (u)		
March 30	Ingo Swann writes to Puthoff. (u)		
April	Puthoff's proposal funded by Science Unlimited Research Foundation, San Antonio, Texas. (u)		
June	Ingo Swann visits Puthoff. (u)	Magnetometer Hidden objects-in-box (u)	
July-August			Targ, R., and Hurt, D. Learning clairvoyance and precognition with an ESP teaching machine. (u)
August 11			Puthoff, H., and Targ, R. Proposal: Document 1 Su-72-1348 ?

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
August 23-25	International Conference Parapsychology and the Sciences, Amsterdam. (4)	However this may have been Agency sponsored + funded Ingo ?	Targ, R. Precognition in everyday life - A physical model. (4)
	Russell Targ's affiliation still listed with Sylvannia GTE, Mountain View and with the Parapsychology Research Group. (4)		
September 2-5	Fifteenth Annual Convention of the Parapsychological Association, Edinburgh, Scotland. (4)	Possible Agency Ingo ?	Targ, R. Precognition in everyday life - A physical model. (4)
	Targ affiliates with Stanford Research Institute (4)		
September	Meeting with Andrija Puharich; learn about Uri Geller. (4)		
November	Preliminary 6 weeks with Uri Geller. (4)	Dice box Hidden objects in box (4) Picture drawing Metal bending	
December	Letter to *Scientific American* inquiring about interest in receiving survey on ESP. (4)		
1973 January	Ingo Swann returns for eight months (1/73 - 8/73) (4)		

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
March 9	Columbia University Physics Colloquium.		Six weeks with Geller; magnetometer experiment: Swann.
March		Geographical coordinates: results beginning to show.	
May 29		First experiment: Project SCANATE, Virginia site: First reading: Swann	
May 30		Virginia site: Second reading: Swann	
June 1	Pat Price calls SRI; given Va. site coordinates.		
June 2		Virginia site: Price	
June 4	Letter arrives with Price description of Virginia site.		
June	Price volunteers reading on Urals site.	Urals site	
July 21		Second experiment: Project SCANATE, Kerguelen Island: First reading: Swann	
July 22		Kerguelen Island: Second reading: Swann	

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
July	Puthoff and Swann attend International Conference on Psychotronic Research, Prague, Czechoslovakia	Agency approved and funded trip.	Summary of work
July	Duane Elgin starts working with the teaching machine. (u)		
August 4-11	Additional work with Geller.	Picture drawing (13) - ? Target pictures (100)	
August 13			Targ, R. Report: Experiments-Uri Geller at SRI, August 4-11, 1973 (u)
August	Swann ends stay at SRI. (u)		Targ, R., and Puthoff, H. ESP experiments with Uri Geller (u)
September 6-8	The Sixteenth Annual Convention of the Parapsychological Association, Charlottesville, Virginia. (u)		Puthoff, H., and Targ, R. PK experiments with Uri Geller and Ingo Swann (u)
December 7	Editorial: Nature (u)		
December		Week of experimentation with Uri Geller - ?	
End of Year		More than 20 experiments carried out with Price and Swann - ? EEG data gathered (6 subjects)	

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
1974 January 28	First reporting period begins: SRI Project 3183 (S)	Remote viewing experiment designed Pilot series with walkie-talkies Preliminary pilot experiment: S_4 (Hammid) Detection of variable density target material Testing program	
March 1	First reporting period ends (S)	Random target generator motivation study: S_1 (Price); 7075 trials (S)	
March 11	Targ, R. and Puthoff, H. Information transmission under conditions of sensory shielding: received by *Nature* (U)	Pat Price experimental series completed	
March 12			Puthoff, H. Perceptual augmentation techniques, Progress report No. 1, SRI Project 3183, Appendix: Targ, R. and Puthoff, H. Information transmission under conditions of sensory shielding (S)
March 1	Second reporting period begins: SRI Project 3183 (S)	Remote viewing of local targets continuing: 70 sites Detection of variable density target materials: two series completed Psychological and medical testing	
April 1	Second reporting period ends: SRI contract 3183 (S)	EEG: repeated three times: 20 15-sec trials: 0, 16 Hz (S)	

TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
April 24			Puthoff, H. Perceptual augmentation techniques, Progress report No. 2 SRI Project 3183 Appendix: Galin, D. and Ornstein, R.E. Hemispheric specialization and the duality of consciousness (S)
April 1	Third reporting period begins: SRI contract 3183 (S)		
April 7-17 (approximate)		Long distance targets: Costa Rica: S_1 (Price); S_4 (Hammid); Targ Long distance target: San Andres, Columbia airport (S)	
		Local targets with walkie-talkie feedback: S_1-1; S_2-1; S_3-2; S_4-5 Remote viewing of local targets using azimuth bearings (2) Remote viewing of local targets S_2-2; S_4-2 (S) Line drawings (50)	
June 10-21		Gradiometer: S_1, 13 10-trial runs; S_2, 1 10-trial run; S_6, 2 10 trial runs (S)	
June 21 (approximately)		Pat Price leaves SRI (U)	

10

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
July 8	Targ, R. and Puthoff, H. Information transmission under conditions of sensory shielding: revised for *Nature*		
July 10		Project Atlas: European R&D test facility: S_1 (Price) Random stimulus generator S_1, S_2, S_6: 100 25-trial runs; S_4: 84 25-trial runs	
July			Targ, R., Cole, P., and Puthoff, H. Techniques to enhance man/machine communications. Final report on NASA Project NAS7-100
August 1	End of third reporting period: SRI Project 3183		Puthoff, H. Perceptual augmentation techniques Report No. 3 SRI Project 3183
August 22-24	The Seventeenth Annual Convention of the Parapsychological Association, Jamaica, New York		Targ, R., and Cole, P. Use of an automatic stimulus generator to teach extrasensory perception Puthoff, H., and Targ, R. Remote viewing of natural targets

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
August 26-27	International Conference on Quantum Physics and Parapsychology, Geneva, Switzerland (4)		Puthoff, H., and Targ, R. (4) Physics, entrophy and psychokinesis Targ, R., and Puthoff, H. (4) Remote viewing of natural targets
September 26		Abacus/clock target S_3 (Swann) New York City S	
October 7		White Plaza: S_6 (Cole) S (first experiment)	
October 18			Targ, R., and Puthoff, H. Information transmission under conditions of sensory shielding
November 8		Experiments: V_1, V_2 S Bridge overstream - V_2 Baylands Nature Preserve - V_1 Merry-go-round - V_1	
November 12		Miniature golf course: S_3 S (Swann)	
November 13		City Hall, Palo Alto: S_3 S (Swann)	
November	Ingo Swann makes list of things he "sees" but are not at scene. Second list of things at scene S		

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
Fall	Other laboratories beginning to replicate remote viewing experiments	Concluded most of experiments with S_{1-6}, V_1, V_2	
1975 February 1	End of reporting period SRI Project 3183		
April	Richard Bach visits		
May 28		Memo: Four-state random number generator; Analysis of man/machine relationship	
July 25	Puthoff, H. and Targ, R. A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research: Received by IEEE		
July	Pat Price dies		
August 21-23	The Eighteenth Annual Convention of the Parapsychological Association, Santa Barbara, California		Allen, S., Green, R., Cohen, R., Goolsby, C., and Morris, R. L. A remote viewing study using a modified version of the SRI procedure Hastings, A. Mental processing of ESP imagery: Theoretical considerations

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
August 21-23 (continued)			Puthoff, H., and Targ, R. Precognitive remote viewing Rauscher, E. A., Neissman, G., Sarfatti, J., and Sirag, S. -P. Remote perception of natural scenes Targ, R., and Puthoff, H. Replication study on the remote viewing of natural targets
November 7	Puthoff, H., and Targ, R. A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research. Revised for IEEE		
November	Beginning of final reporting period, SRI Project 4540	EEG experiments with Hammid	
December 1			Puthoff, H., and Targ, R. Perceptual augmentation techniques. Part two: Research report. Menlo Park, California: Stanford Research Institute, Final report, Contract 3183

TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
1976 January			Targ, R., and Puthoff, H. Letters, *Scientific American*
March 6		Hastings, A., and Hurt, D. Conduct experiment with the Parapsychology Research Group, Palo Alto, California	
March 25	Whitson, T. W., Bogart, D. N., Palmer, J., and Tart, C. T. Preliminary experiments in group "remote viewing": Received by IEEE		
March	IEEE call for replication studies on remote viewing		Puthoff, H., and Targ, R. A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research
April 15	Beginning of SRI Project 5309	Long-distance remote viewing with target-person or geographical coordinates	
May 3	Calkins, J. L. Comments on A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research. Received by IEEE		

TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
May 4		Remote viewing: Baylands Nature Preserve - V (S)	
May 5	Vallee, J., Hastings, A., and Askevold, G. Remote viewing experiments through computer conferencing. Received by IEEE (U)	Remote viewing: Inner Quadrangle, Stanford University - V (S)	
May		Tart conducts Nebraska Psychiatric Institute experiment (U)	
May 6	Hastings, A. and Hurt, D. A confirmatory remote viewing experiment in a group setting. Received by IEEE (U)		
June 22	Calkins, J. L. Comments on A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research. Revised for IEEE (U)		
June 30	Puthoff, H., and Targ, R. Replies to comments on A perceptual channel for information transfer over kilometer distances: Historical perspective and recent research. Received by IEEE (U)		

TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
July 2		Long distance remote viewing: Grant's Tomb: S_7, S_8 (S)	
July 6		Long distance remote viewing; Washington Square: S_7, S_8 (S)	
August 18-21	Nineteenth Annual Convention of the Parapsychological Association, Utrecht, The Netherlands (U)		Bisaha, J. P., and Dunne, B. J. Precognitive remote viewing in the Chicago area: A replication of the Stanford experiment (U)
August (5 days)		Bisaha, J. P., and Dunne, B. J. Long distance precognitive remote viewing experiments: Czechoslovakia, U.S.S.R. (U)	
October 30		Long distance remote viewing: New Orleans - Palo Alto: California Bank Building: S_8 (S)	
October 31		Long distance remote viewing: Menlo Park - New Orleans: Louisiana Superdome: S_7 (S)	
October			Hastings, A., and Hurt, D. (U) A confirmatory remote viewing experiment in a group setting
			Vallee, J., Hastings, A., and Askevold, G. Remote viewing experiments through computer conferencing (U)

TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
October (continued)			Whitson, T. W., Bogart, D. N. Palmer, J., and Tart, C. T. Preliminary experiments in (u) group "remote viewing".
			Comments on Perceptual channel for information transfer over kilometer distances: Historical perspective and recent research. Calkins, J. L., Deutsch, S., Harris, W. A., McConnell, R. A., and Muses, C. A. Replies: Puthoff, H. E., and Targ, R. (u)
October	End of reporting period: SRI Project 4540	Long-distance targeting (?)	
1977			
			Targ, R., and Puthoff, H. E., (u) *Mind-Reach*
April 19-22	Electro 77: Special Session: The State of the Art in Psychic Research, New York, New York (u)		May, E. C., Targ, R., and Puthoff, H. E. Possible EEG correlates to remote stimuli under conditions of sensory shielding (u)
			Puthoff, H. E., and Targ, R. Direct perception of remote geographical locations (u)

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
April	End of reporting period: SRI Project 5309 S		
July			Puthoff, H. E., Targ, R. and May, E. C. Advanced threat technique assessments. Stanford Research Institute Project 5309, Document 7-4375 S
August 10-13	The Twentieth Annual Convention of the Parapsychological Association, Washington, D.C. U	Dunne, B., and Bisaha, J. P. Multiple channels in precognitive remote viewing U	
September	International Conference on Cybernetics and Society, Washington, D.C. U		Bisaha, J. P. and Dunne, B. J. Multiple subject and long distance precognitive remote viewing of geographical locations U
			Targ, R., Puthoff, H. E., and May, E. C. State of the art in remote viewing studies at SRI U
December			Puthoff, H. E. Memo: judging procedures -?
1978 Winter	Robert G. Jahn and Carol Curry visit SRI (U)	Experiments conducted at SRI: Holiday Inn, Chapel, Stanford -U?	

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TABLE 1. (continued)

YEAR/MONTH	RELEVANT EVENTS	EXPERIMENTS	PUBLICATIONS
Winter			Karnes, E. W., and Susman, E. P. Remote viewing: A response bias interpretation (a)
March 28			Puthoff, H. E. Letter to Karnes, E. W., and Susman, E. P. (a)
April			Targ, R., May, E., and Puthoff, H., Galin, D., and Ornstein, R. Sensing of remote EM sources (Physiological correlates): SRI Project 4540: Final Report 5
April 17	Jahn, R. G., J. E. Farnum Lecture, Princeton University, Princeton, New Jersey (a)		
May 1			Puthoff, H. E., Targ, R., and May, E. C. Psychoenergetic research: suggested approaches 1, 4
December 4			Jahn, R. G. Psychic processes, energy transfer and things that go bump in the night. (a)

EXPERIMENTS	TARG (1974)	SRI REPORT: PROJECT SCANATE	SRI PROGRESS REPORT 12 MARCH 1974	SRI PROGRESS REPORT 24 APRIL 1974	SRI PROGRESS REPORT AUGUST 1974	TARG, COLE, & PUTHOFF (1974)	TARG AND COLE (1975)	PUTHOFF AND TARG (1976)	TARG AND PUTHOFF (1976)	TARG AND PUTHOFF (1976)	PUTHOFF AND TARG (1976)	TARG AND PUTHOFF (1976)	PUTHOFF AND TARG (1976)	PUTHOFF AND TARG (1976)	MAY, TARG, AND PUTHOFF (197	TARG AND PUTHOFF (1977)	PUTHOFF, TARG, AND MAY (197	PUTHOFF AND TARG (1977)	TARG, PUTHOFF, AND MAY (19	TARG, MAY, PUTHOFF, GALIN, AND ORNSTEIN (1978)
LONG DISTANCE/GEOGRAPHICAL COORDINATES																				
TRAINING MODE: 100 TARGETS		X																		
DEMONSTRATION OF ABILITY																				
LOCAL U.S. TARGETS		X														X				
FOREIGN TARGETS		X			X											X				
TARGETS																				
LONG DISTANCE/TARGET PERSON																				
COSTA RICA: S_1, S_4, R.T.				X	X				X			X	X		X					
CONTINENTAL U.S.: S_7, S_8																				
SRI - NYC (2)																X	X	X		
NYC - OHIO (1)																X	X	X		
NEW ORLEANS - PALO ALTO (1)																X	X	X		
SRI - NEW ORLEANS (1)																X	X	X		
LOCAL TARGETS																				
TRAINING WITH FEEDBACK					X				X							X				
DEMONSTRATION OF ABILITY																				
S_1: PAT PRICE			X		X			X					X	X		X	X	X		
S_4: HELLA HAMMID					X							X	X	X		X	X			
S_2: DUANE ELGIN					X								X	X		X				
S_3: INGO SWANN													X	X		X				
S_5: MARSHALL PEASE													X	X		X				
S_6: PHYLLIS COLE													X	X		X				
V_1:													X	X		X				
V_2:													X	X		X				
PRECOGNITIVE EXPERIMENTS: S_4											X									
TECHNOLOGY PARGETS: S_2, S_3, S_4, V_2, V_3												X	X	X		X			X	
ALPHABET LETTER EXPERIMENTS																		X		

The following sequence of experiments and groups of experiments is in an approximate chronological order, approximate only because some dates of experimental work are unknown or undocumented and because several sequences of experiments overlapped in time. To hopefully make this section and our perspective of the SRI work more intelligible, we have attempted to combine the experiments into cohesive, logical groupings where it seems appropriate.

A. Project SCANATE: Long Distance Remote Viewing by Geographical Coordinates.

In the training mode of this sequence, "100 targets on the earth's surface, ten per day for ten days, were chosen at random, often by different experimenters. For each ten-trial session, the experiment would begin with the subject (Swann) being given a target location by latitude and longitude only, for which he had to provide an immediate response of what he saw. Following his response, some brief indication was given as to whether there existed any correspondence between his description and the target location .... A run of ten coordinates was always completed in less than thirty minutes for the entire run." (Project SCANATE Report, no date, pp. 1-2) S

The experimenters were impressed with the results. As indicated in Targ and Puthoff (1977, p. 28), "even though the descriptions were perhaps a bit vague here, a little ambiguous there, they were accurate enough to make us begin to wonder whether we had on our hands a case of paranormal remote viewing or paranormal memory." They recognized (SCANATE Report, p. 2) that the results were only indicative, since "even under the carefully controlled experimental conditions in force, a) an individual could, in principle, obtain

good results on the basis of memory, and b) given the hypothesis of extra-ordinary functioning an individual could, in principle, obtain the data subliminally from an experimenter who knows the target location." They recognized at that time the need for "double-blind" targets in successive tests. S

Figure 1 indicates the trend of the results over the ten runs of ten trials per run. While the scoring is somewhat arbitrary, the general trends are supportive of remote viewing. Table 3 indicates results of responses to Run 10 targets. Presumably these are representative, although no such response data or target coordinates are presented for most of the targets. (A few brief responses to selected targets are quoted in *Mind Reach*, p. 27.) S-U?

Of most interest is that this sequence of demonstration experiments generated hypotheses and concern for careful experimentation. Puthoff and Targ recognized that "An individual could--in principle--obtain good results on the basis of eidetic memory. In certain cases, an individual also could--in principle--obtain the data subliminally from an experimenter who knew the target locations." (*Mind Reach*, p. 30) This possible source of information is directly relevant to future experiments in their program. S-U?

Virginia Site (38° 23' 45-48" N, 79° 25' 00" W)

To subject the remote viewing phenomena to a more rigorous test, the sponsor transmitted a set of coordinates to Puthoff, who presented them to Swann. No maps were permitted and Swann was requested to give an immediate response (SCANATE Report, p. 4). The session was videotaped. S

His immediate response included "seeing" mounds or rolling hills, a city to the north, some lawns, maybe a covered reservoir, some highways to

SCANATE TRAINING RESULTS (SWANN)

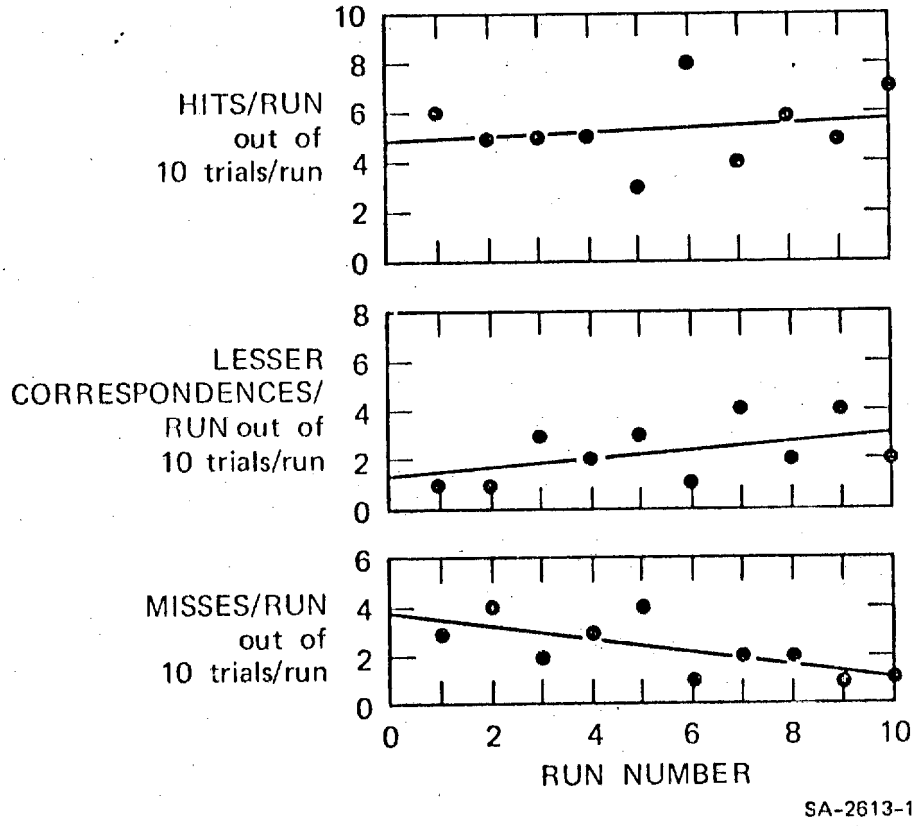


Figure 1. Results of Ten 10-Trial Training Blocks (Swann), Project SCANATE

-5-4²

TABLE 3. RUN 10, SCANATE TRAINING RESULTS

Target	Response	Evaluation
45°N 150°W (ocean)	Ocean, beautiful blue-green waves, sun shining, ship toward north	H
2°S 34°E (eastern shore, Lake Victoria, Africa)	Sense of speeding over water, landing on land. Lake to west, high elevation	H
55°N 150°E (Sea of Okhotsk)	Not many trees, patches of snow, marsh?	M
64°N 19°W (20 miles ENE of Mt. Hekla volcano, Iceland)	Volcano to southwest. I think I'm over ocean.	H
55°N 130°E (Soviet Union)	Wind blowing there, night, telephone wires. Land, flat place with fields; Cold.	N
60°N 90°W (Hudson Bay)	Open water, stands of pine to north	H
60°N 91°E (Soviet Union)	City, snow on ground, city to north-east, factory to south	N
30°S 0° (ocean)	Ocean, Atlantic, deep blue water	H
42°N 105°E (Gobi)	Mountains	H
28°S 137°E (Lake Eyre, Australia)	Islands, Land mass to east, west. An open sea, night.	H

NOTE: H = hit; good description of area in near vicinity of target; N = neutral; some possibility of correspondence; M = miss, clear lack of correspondence.

the west, possibly a river over to the far east, to the south more city. This report, while general and fitting many locations in that general area, seemed to have some correspondence.

The next morning Swann submitted a written report of a second reading. (No mention is made of exactly when this "reading" was made, but the report appears to have been written 0735-0758 PDT that morning. There is no statement of any request that generated this second reading or a written report.) The written report mentions a circular building, and asks if it is a former Nike base. It also mentions the impression of something underground.

Two days later, the coordinates were given to Pat Price (then held anonymous) for "a backup test." The coordinates were telephone to Price on 1 June 1973, and Price's written response, dated 2 June 1973, was received in the mail 4 June 1973.

The written response describes the mountain chain, roadways, vegetation, distant city and Civil War battleground, weather conditions, etc. Of greatest interest is his detailed description of a large underground storage area and its contents of file cabinets, room sizes and lighting, personnel names, elevators, etc. He also "read" the enscription on a marble colonnade dedicated to the fallen soldiers of the battle of Lynchburg.

On a later date, Price was asked to return to the Virginia site with the goal of obtaining codeword information. He then provided several codewords presumably under lock in the files, along with personnel names. These were subsequently verified as having "some" validity.

SG1A

Urals Site [redacted]

Price also volunteered to scan the other side of the globe for an equivalent Soviet Bloc site, and "found" one in the Urals. He then described the terrain, vegetation, concrete underground site, personnel, helipads, rail tracks, and radar installations.

Apparently Swann was not requested to scan this target, although the coordinates were "provided" by Price. It should be noted that Swann was in residence at SRI at this time (Table 1).

Island Site (49° 20' S, 70° 14' E)

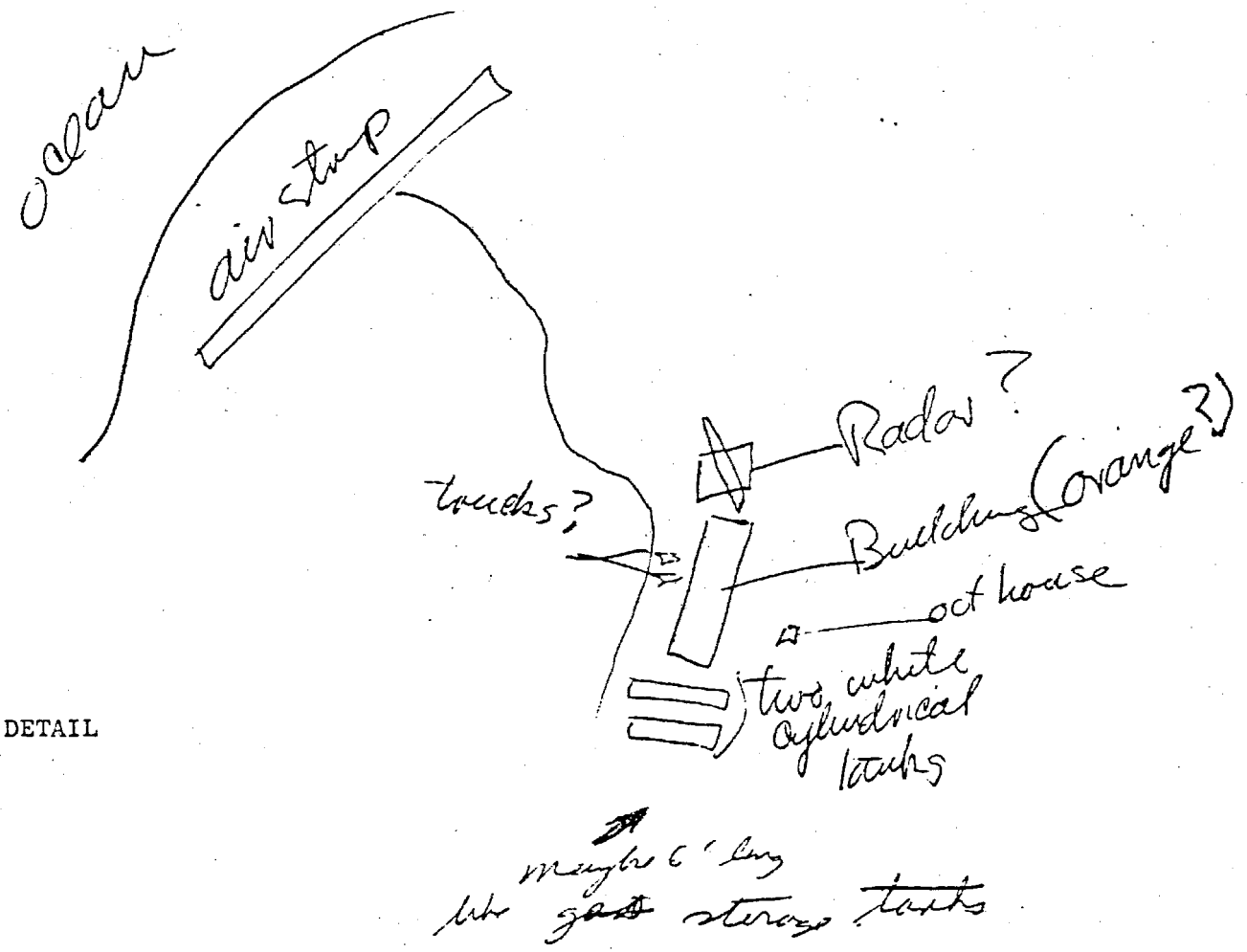
The coordinates of this target were given by a scientist (unnamed) challenging the SRI work. Puthoff gave Swann the coordinates. No maps were permitted, and Swann's immediate response was recorded on video tape.

Response indicated an island, which was confirmed by experimenter. [Thus, experimenter knew nature of target prior to subject's response.] Buildings, radar antenna, cylindrical tanks, trucks, wind are mentioned. Then Swann terminates response and submits sketch of area containing those elements (Figure 2).

The following day a second reading without maps was obtained. At this time, he gave considerable detail regarding the shape of the island, rocks, beach, vegetation, maybe a lighthouse. A detailed sketch of the island (Figure 3) was also made.

Project Atlas Site

The sponsor provided map coordinates for a European R&D test facility as an experiment to determine the utility of remote viewing under operational



SECTION I. DETAIL

Figure 2. First Kerguelen Island Drawing (Swann)

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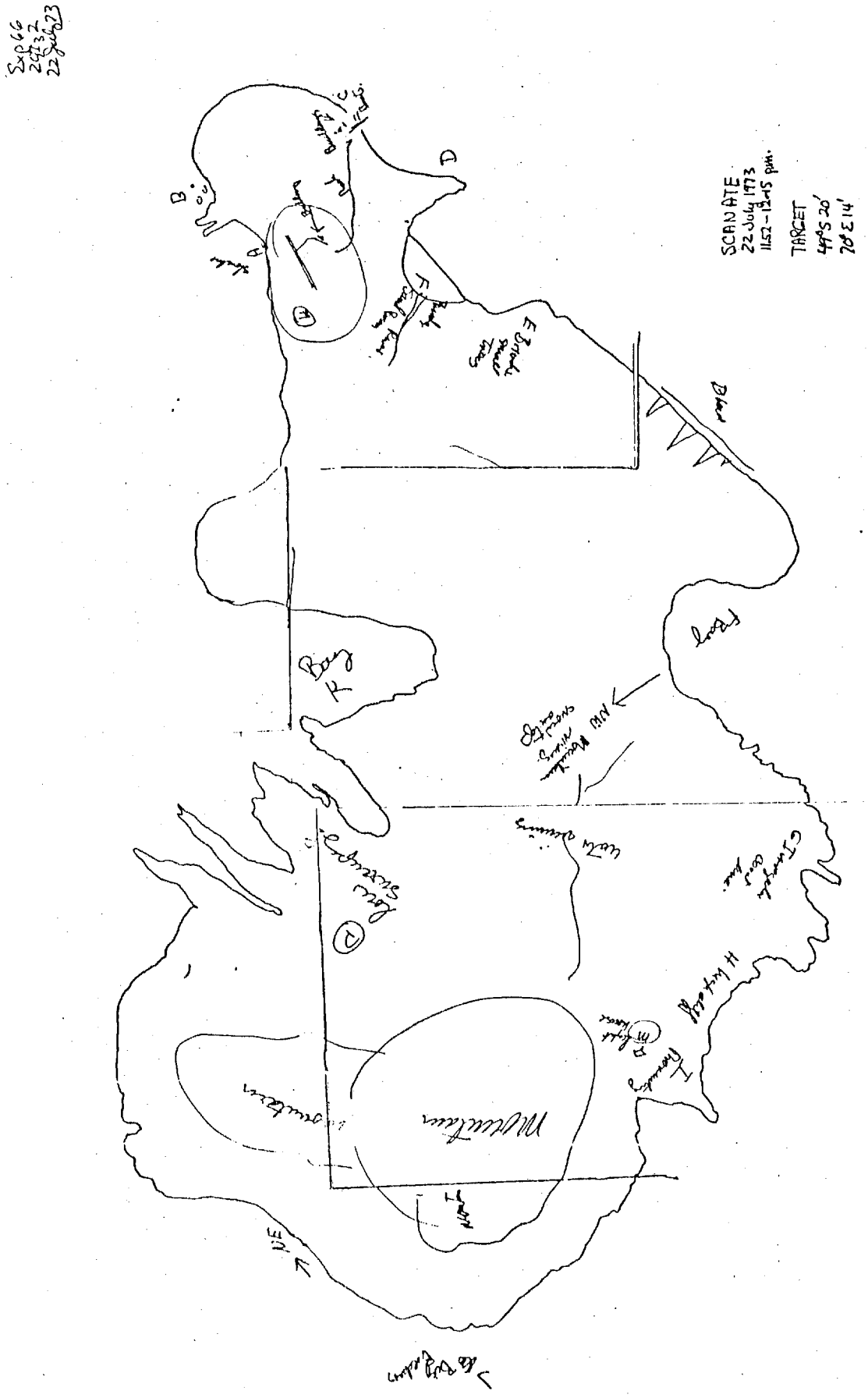

Figure 3, Second Kerguelen Island Drawing (Swann)

conditions. The experimenters did not know anything about the nature of the target except that it was a test facility. They then provided the coordinates to S_1 (Price), who provided sketches of both a building layout and a gantry crane. S

The response was judged by the sponsor to be of sufficiently good quality to progress through verifiable physical data of the client (Phase II) and the generation of nonverifiable data (Phase III). Reports and evaluations by the sponsor indicate substantial validity of the Phase II results. S

The precise timing of the transmission of the coordinates to the experimenters, the relaying of the coordinates to the subject, and the time of the subject's Phase I, Phase II, and Phase III responses are unknown and unstated in available reports. Opportunities for receipt of target information, by the experimenters or the subject during this time period, are not precluded by the experimental details presented. S

Sylvania Laser Laboratory, Mt. View, California

This and the subsequent targets in this section on remote viewing by geographical coordinates were conducted "to evaluate the applications feasibility." (Puthoff, Targ, and May, 1977) S

Targ (who previously worked at Sylvania in Mt. View) chose the target and gave the geographical coordinates to Puthoff. Puthoff then served as the experimenter with subject I_1 (probably Swann) to obtain a description, sketch, and clay model of the target. "As is the usual procedure, the experimenter with the subject probed for more detail with regard to what the subject had generated." S

The subject's description was very good. No mention is made of whether the subject had ever seen the laboratory or if the subject was aware of

Targ's employment history. [The latter is likely because of the close relationship the experimenters had with the subjects.] S

Lawrence Berkeley Laboratory Bevatron, Berkeley, California

In this case, the experimenter with the subject "(1) knew only the name and general function of the target, (2) did not have any detailed information about what was inside the target building, and (3) took every conceivable precaution to prevent cueing or leading the subject." The subject, H_1, was probably Hella Hammid. S

The description was quite good, with the sketch and model very close. The authors conclude that "(1) remote viewing on the basis of coordinates is at least as effective as remote viewing on the basis of an outbound experimenter at the site, and (2) subjects not technologically oriented can nevertheless produce meaningful descriptions of technological installations." (Puthoff, Targ, and May, 1977, p. 73) S

Real-Time Targetting, Utah and China Lake, California

Five Minuteman and Poseidon static test firings were kept blind to SRI personnel until all five firings were completed. Coordinates were given to subjects I_1 (in Menlo Park) and H_1 (in Los Angeles). I_1 participated in all five targets, H_1 in two. S

The results included recognition of go and no-go conditions, timing to within ten seconds, and descriptions of the events as "drawn-out muffled roars" which "raised dust clouds" and involved "glowing melted materials." They were judged to be excellent and to constitute a significant breakthrough with regard to real-time data collection. (Puthoff, *et al.*, 1977, p. 75) S

Sponsor-Designated USSR Target Sites

Two Soviet Sites (A and B) were passed by coordinate to subjects I_1 and E_1. Subject I_1 gave apparently valid responses of major structures such as airfield and buildings. When asked to search general area for airfield, subject E_1 also provided sketch of runways and buildings.

Subject I_1 correctly described Site B as a town and barren area.

The authors conclude that the subjects' responses were valid and were not "simply geared to match the expectations of the experimenters ... or what may reasonably be expected to be correct .... [Rather, the response] describes the area appropriate to the coordinates even though it may run counter even to the subject's own expectations." (Puthoff, *et al.*, 1977) S

Ten additional sites were scanned by subjects E_1 and I_1. The experimenter was kept blind to the target. The data were partially verified. The authors state that the results "constitute a useful supplementary data collection technology." (Puthoff, *et al.*, 1977, 94-95) S

Critical Evaluation

At this point, we present a critical evaluation of the methodologies used for the training mode targets, the Virginia site, and the Island site. Evaluation of the methodology and results of the remaining targets, U.S. and foreign, will be delayed until later in Section II, simply because the methodologies are similar and were largely developed in close chronological sequence. S

Abstract targeting (Project SCANATE) began as a result of Swann's consideration of abstract thought versus linear thought during the period of early experimentation at Stanford Research Institute. "I decided thought

itself constituted a threshold somewhat on the nature I was searching for, especially abstract thought as contrasted to linear thought. If this were true, then the physical targets arbitrarily and endlessly utilized by contemporary parapsychology were the worst possible kinds of targets. This would naturally be the case since the psychic entity could not relate to unknown physical targets very well in the absence of a mental or thinking access to them .... The problem immediately arose as to what constituted an abstract target. This worried me for some time until I realized that abstract targets were lying around all over the place in the form of anything that in itself referred to thought before it referred to physical things. These are words, mathematical symbols, understanding, intuition, ... but refer to nonphysical things .... The abstraction of the coordinate sufficed to provide orientation for the psychic probe ... to locate by transcendental means the place to which the coordinate referred and thence to inspect it and describe what was there .... This idea, of course, was totally foreign to even the brilliant thinkers ... at Stanford Research Institute .... However, due to their initial lack of enthusiasm for this irrational approach, and because we had not yet understood the precision of the abstract ability, the coordinates were rather loosely put together." (Swann, 1975, p. 107-109) "... many of the coordinates were simple, merely seeking to ascertain if the coordinate related to ocean, mountain, desert, and so forth." (p. 110) 11

These coordinates were apparently taken off rather general maps with little resolution since a discussion ensued over Swann's response as to the correctness to the Lake Victoria coordinates. At that time, "... we went out to a book store to purchase The Times Atlas of the World ...." (p. 110) This target appears, one might note, in Run 10, the *last* run of targets to

be used. Thus, the logic and sequence of these events appear to conflict.

In *Mind Reach*, Targ and Puthoff (1977) agree to compile a list of ten coordinate pairs, latitude and longitude" ... since it was just a game--an interlude from our scientific experimentation, we simply consulted a map .... On a later day, we ran through another series of ten pairs ... the phenomenon we were observing with Ingo was interesting enough to take ten 'breaks' altogether, yielding a total of 100 descriptions, one for each coordinate pair." (pp. 27-28)

However, in writing the technical report on Project Scanate, the "game" was presented somewhat differently. "As a result of the experimentation carried out on what might be termed micro-abilities, Swann expressed the opinion that the insights obtained had strengthened a macro-ability which had been researched prior to his joining the SRI program; namely, the ability to view remote locations. In order to test the above assertion, SRI researchers set up a series of experimental protocols on a gradient scale of increasing difficulty .... For the first experiment, considered to be a training mode, 100 target on the earth's surface, ten per day for ten days, were chosen at random ... under carefully controlled experimental conditions ...." (pp. 1-2) What appeared to be purposeful to Swann became, variously, a game and serious experimentation to Puthoff and Targ.

Puthoff and Targ quantify the results of this experiment "... since, ... a) an individual could, in principle, obtain good results on the basis of memory, and b) given the hypothesis of extraordinary functioning an individual could, in principle, obtain the data subliminally for an experimenter who knows the target location." (p. 2) Swann, on the contrary, comments in his book, "... evidence mounted to indicate that psi-ability was undergoing

some sort of a learning process, reflected in a rising curve of both accuracies and increasing descriptions of the site." (Swann, 1975, p. 110) u

However, a calculation of the linear relationship between the number of hits and trial blocks yields a product-moment correlation of 0.20, which predicts only 4.2% of the variation in hits over trial blocks. This correlation is *not* statistically significant ($p > .05$), indicating no justifiable conclusion of learning over the trial blocks. u - get related to 5 data

As indicated above, these successes led to following, more rigorous experiments which required Swann to provide details that would not be available on a map. Several items are important in evaluating those results.

Virginia site, Subject: Swann. It is interesting to note the possible clues given to the subject at the time the coordinates were introduced: "... a skeptical colleague of ours on the East Coast ..." (Targ and Puthoff, 1977, p. 2) Although it is not clear as to what preceded the introduction of the coordinates to the subject, Swann's initial description is an extremely general one. It was not until the *second reading on the following day* that any real detail is included in his description, such as "Cliffs to the east ... a circular building ... a former Nike base ... something underground ...." This, however, is reported in *Mind Reach* as a *single reading*. (S)

Swann also states: "This is about as far as I can go without feedback, and perhaps guidance as to what was wanted. There is something strange about this area, but since I don't know particularly what to look for within the scope of this cloudy ability, it is extremely difficult to make decisions on what is there and what is not." (Project SCANATE Report, pp. 4-5) This comment is made during his *second* reading. If Swann can "see", why does he need guidance as to what to look for? (S)

In addition, Puthoff and Targ did not quote their own sources accurately. "There's a circular building (a tower?) ..." (SCANATE, p. 4) and "There's a circular building, perhaps a tower ...." (*Mind Reach*, p. 2) These may appear as minor points until another more obvious discrepancy occurs relating to Pat Price's appearance as a subject. "As a back-up test, the coordinates were given to a second subject who appears to possess similar ability in casual testing ...." (SCANATE Report, p. 5) "It began with a phone call from Lake Tahoe. ... I've been following what you fellows are doing so I thought I'd call to let you know that I have similar abilities .... On an impulse, I read off to him the coordinates of the East Coast site that Swann was targeting ...." (*Mind Reach*, pp. 46-47)

5 + 4

Virginia site, Subject: Price. Again, one finds the same discrepancy in the reporting of Price's viewing as is found with Swann. The entire viewing is reported as a single viewing in one source, (*Mind Reach*, pp. 47-48), rather than the two readings that Price actually supplies. One wonders how Price knew about the work going on at SRI with Swann since it was just a "game". There was certainly sufficient time for contact to be made between Swann and Price, assuming that they knew each other or had common associates. It is alleged, although unverified by the authors, that Price had once worked for the organization that had control over that particular site and therefore might have had access to the reported information. 5

Approximately three weeks later, a second set of coordinates was given to Swann, those of Kerguelen Island. 5

Kerguelen Island, Subject: Swann. Two readings were allowed again. His first impressions were of an island which was verified almost immediately by the experimenter although no maps were permitted. "My initial response

is that it's an island, maybe a mountain sticking up through cloud cover (experimenter checks, gives positive feedback)." (SCANATE Report, p. 8) Swann verifies this in his book, but with a different twist: "Well, said the experimenter present, I think that is wrong. I checked the target just before we began, and it is in the middle of the ocean." (Swann, 1975, p. 112) Swann also relates: "... it was seen that the coordinate referred almost exactly to the 1,600-foot mountains rising out of the eastern end of Kerguelen Island." (p. 112) His directions, however, seem to get reversed when he draws his map the following day as he then places the mountains in the west.

In comparing his descriptions of his map, we again find another discrepancy in reporting: "If I look to the west, hills; to the north flatlands and, I think, airstrip and ocean in the distance; to the east, rolling bumpy grasslands with bumps; to the south is--I can't see anything to the south .... May be a lighthouse (on tip?) ... I lacked ...." (SCANATE Report, p. 9) The other accounting: "If I look to the west, hills; to the north flatlands, and I think, airstrip and ocean in the distance to the east; can't see anything in the south ... maybe a lighthouse. I lacked courage ...." (*Mind Reach*, pp. 32-33)

It is interesting to note what appears to be two different types of handwriting on the first detailed map Swann drew of the airport strip and buildings, although the authors do not profess to being handwriting experts ("maybe 6' long, like gas storage tanks"). SECTION 1. DETAIL (SCANATE Report). Note the different "r's" and "s's". A comparison with the airport drawing, *drawn by one of the experimenters* during the Costa Rica experiments, might be in order. (*Mind Reach*, p. 12) Note also that this is referred to as Experiment 66 (SCANATE Report) although this number has been removed from

the same drawing in *Mind Reach* (p. 32).

After Puthoff and Targ describe the Kerguelen Island site in *Mind Reach*, they qualify the results by stating that prior knowledge could have been possible. Therefore, another experiment was performed in which no prior knowledge was available. "No such criticism could be leveled at the following type of experiment ... A target site on the East Coast ...." (*Mind Reach*, p. 33) leading the reader to believe that this target came *after* Kerguelen Island. Although they have stated the date and have stated that this was the first experiment of many, the reader can easily be led to believe that Kerguelen Island came before the East Coast site, unless the reader returns to the earlier description in the early pages of the book. (*Mind Reach*, pp. 1-4)

In general, the Kerguelen Island and Virginia site results are impressive until one carefully considers the timing, and the notion that each subject *could have* obtained the impressive detailed information during the day that ensued between the first and second readings.

Similarly, inconsistent and conflicting detail reporting cause the careful reader to be at least slightly suspicious. However, these are early attempts in the research program, and the investigators were perhaps feeling their way. Judgement about these particular experiments is not critical. The later experiments are the ones designed to improve the methodology and verify the existence of a remote-viewing ability.

B. Long Distance Remote Viewing by Target Person Cueing.

A number of studies have been conducted at SRI (and elsewhere) to evaluate the abilities of subjects to describe remote target sites identified only

by the presence at the target of a known individual or group of individuals ("target persons").

Costa Rica Experiment

Puthoff's itinerary for a one-week trip was known to the subjects (Price and Hammid), who described his location each day at 1330 PDT. Puthoff kept a detailed record of his location and activities, including photographs. S

S_4 (Hammid) contributed five daily responses, of which "two were in excellent agreement, two had elements in common but were not clear correspondences, and one was clearly a miss." (August 1974 Progress Report, p. 5) S Nothing specific is offered in this progress report on S_1's responses. However, in *Mind Reach*, the authors indicate further "excellent correspondences" for targets such as "poolside relaxation, a tropical forest at the base of a truncated volcano, a hotel room, and so on." (p. 13) U

The picture presented most frequently to exemplify the success of this experiment is that of the airport in San Andres, Columbia, and the related sketch by Targ, who "filled in" on that day because one of the subjects (S_4) was absent.

Upon his return, Puthoff attempted to blind match the twelve responses to the seven target locations. He correctly matched five of the twelve responses, a result "significant at odds of 50:1." (Targ and Puthoff, 1977, p. 13) S

Assuming independence of the responses and events, one can verify this probability estimate with the binomial distribution, asking the probability of obtaining 5 or more correct matches out of 12, when the *a priori* chance probability is 1/12. Thus,

$$p(n \geq 5) = 1 - \left[\sum_{n=0}^{5} \binom{12}{n} \left(\frac{1}{12}\right)^{n} \left(\frac{11}{12}\right)^{12-n} \right] \quad (1)$$

$$= .00026$$

That is, under the above assumptions, the probability of this occurrence by chance is .00026; or, the odds are better than 3000:1!

Continental U.S. Experiments

Based upon the various local remote viewing experimental results, the Project SCANATE results, and the Costa Rica results, it was decided to explore the accuracy of long-distance remote viewing for U.S. targets demarcated by a target person. Puthoff, Targ, and May (1977) described the results of experiments with five such targets. These experiments are also reported by Targ, Puthoff, and May (1978). They all followed the same general procedure.

The DARPA computer teleconferencing network was used to coordinate experimental timing, and to provide time/date stamped permanent records of all communications. With this system inputs at one location can be read out in real time at another location.

After logging off the computer, the target person used a random number generator to determine which of six locations in the target area would constitute the target. Neither the subject nor the experimenter knew the contents of the target list, which was compiled after the target person logged off. The target person selected the target, proceeded directly to the target, arriving there 30 minutes after logging off, and remained at the target site for 15 minutes.

The subject, at the beginning of start time, would begin to type his impressions into a special computer file established for this purpose. When the target person returned from the target site, he entered his description of the site into a limited-access file. "He would then return to the executive level of the computer, and await the appearance of the SRI experimenters and subject who could then (and only then) link the [target location] and Menlo Park terminals. At that time both files would be printed out on both terminals (and at a third location if desired--for example, at the sponsor facility), and the subject and the outbound experimenter would each learn what the other had written." (Puthoff, Targ, and May, 1977) The results are summarized below by target. S

Grant's Tomb (New York City). Both subjects S_1 (probably Swann) and G_1 (an SRI systems analyst) were located in California, and made independent responses. One subject (unspecified) drew a sketch. [These subjects are renumbered S_7 and S_8, but still unnamed in the 1978 report.] The selected target was Grant's tomb. Other targets in the pool were a railroad bridge, the 20-story NYU law library, the fountain in Washington Square Park, the Columbia University subway station, and the 72nd Street boat basin. S

Responses deemed correct by G_1 were "outdoors, large open area ..., white building, ... arched look ..., large shade tree close to Russ."

Responses by S_1 included "tree on your left ... in front of a building you were entering ... looking at coins in palm of your hand, maybe giving some to Nicky (son of target person)." S

These responses are essentially correct; other details were correct, and some clearly incorrect.

Washington Square Fountain. Subject S_1 was accurate in description of column, pigeons, dry fountain pool, cement steps, rounded edge of top of depression. Drawing also appeared fairly accurate. S

An SRI scientist, familiar with New York City but blind to the target, identified the target correctly on reading twenty lines of printout as it emerged from the terminal. S

An admittedly crude content analysis of the responses of subject S_1 indicates that about 66% of the transcripts is accurate. If matched against the other target sites, only 37% of the transcripts would apply. "Although crude, this analysis strongly suggests a method for further single transcript analysis to be carried out by professional linguists." (Puthoff, *et al.*, 1977, p. 46) S

Ohio Caves, Springfield, Ohio. The target person, under sponsor observation, telephoned subject H_1 in New York City that the target person was somewhere between New York and SRI, and would shortly be taken to a target site. The experiment was set to begin at 2:00 PM EDT, with the target person to call H_1 at 3:00 PM to obtain the impressions of H_1 and to provide feedback.

The cave depths are about 150 feet, and the cave is entered through a small building having a long flight of steep stairs. The response included "underground caves or mines ... deep shafts ... darker, cool, moist earth-smelling passages." These are considered quite accurate.

A second, less experienced subject (G_1) at SRI also served as a subject. His transcript contained some correct elements, but he believed the target to be a museum. No paranormal functioning was concluded from his transcript. S

Northern California Bank Plaza. Subject S_1 was in New Orleans, while the target was in Palo Alto. The subject correctly reported "overhang of a

building over their heads ... also a round gold rim around a sunken depression." He also reported "there was a projectile coming toward [the target person]. Like a ball or frisbee ...." Actually, they had tossed a paper airplane back and forth several times. This appears to be a rare instance of a subject reporting rapid motion. S

Louisiana Superdome, New Orleans. Subject G_1 in Menlo Park described this target as "a large circular building with a white dome." The sketches are considered close. Subject saw rings, seats, inside lighting color, nearby freeway, parking lot, newness. The target was selected randomly from a New Orleans guide book list. S

Puthoff, *et al.* (1977, pp. 57-58) conclude that "Taken overall, the results ... are of roughly the same accuracy with regard to site descriptions as those obtained in local remote-viewing experiments. The descriptions not only contain correct information beyond that expected by chance, but also show remarkable detail and resolution. Furthermore, real-time activities are observed and correctly described in a number of instances .... Any application of paranormal functioning need not, to first order, consider distance as a barrier." S

Critical Evaluation

A critical evaluation of these results and methodologies is contained at the end of Section II because of the chronological proximity of the experiments and the methodological similarities.

C. Local Targets with Target Person Cueing

A very large portion of the SRI work has dealt with a somewhat standardized procedure in which a target person goes to a nearby, randomly selected target at a designated time. The subject then describes the target site in as much detail as possible. In the following sections, we summarize these "local" experiments by related categories. Since these studies form the most quantitatively judged experimentation, they are probably the most important studies for the purposes of method evaluation and improvement.

Training with Feedback

Puthoff (1974, August Progress Report) describes a series of local experiments which were designed to give immediate data to the experimenters. While these are clearly "pilot" experiments in the traditional experimental sense, they are also described and discussed elsewhere (Targ and Puthoff, 1975; Targ and Puthoff, 1977) and therefore warrant inclusion here. S

In this series, the subject and experimenter remain in a laboratory at SRI, while the target person leaves the area and proceeds to a remote location of his choosing. The target person and the experimenter are in two-way radio communication by "walkie-talkie" to provide the experimenter with real-time data and to give the subject immediate feedback. Thus, this serves as a training technique for the naive subject in particular, permitting the subject to "learn to separate real from imagined images." (Puthoff, 1974, p. 9) S

Transcripts of "representative" experiments indicate queries and responses between the experimenter and target person.

Puthoff (1974) reports that one experiment of this type was carried out with S_1, one with S_2, two with S_3, and five with S_4. (We believe these subjects to be Price, Elgin, Swann, and Hammid, respectively.) "A number of

descriptions were essentially free of error and with no feedback other than verification following the remote viewer's description." (p. 12) S

In one such experiment, "... Swann gave a description of Hal walking across some blacktop, stopping in front of a blue building, and then walking into a depression .... Now you really have to have a very high level of confidence in your perceptions ... to say that somebody stopped near a blue building. The probability of encountering a blue building is about the same as a purple cow, but Harold in fact did stop in front of a blue building on his way to the depression." (Targ and Puthoff, 1975, pp. 172-173) U

Demonstration of Ability

Successful results in the above feedback experiments and the long-distance trials with Swann led to the formulation of a protocol for better controlled experiments to be conducted in the San Francisco Bay area. This standard protocol is taken, as follows, from the August 1974 SRI Progress Report (Puthoff, 1974). S

"This experiment consists of a series of double-blind tests involving local targets in the San Francisco Bay area which can be documented by independent judging. Target locations within thirty minutes driving time from SRI are randomly chosen from a list of targets kept blind to subject and experimenters and used without replacement. S

"To begin an experiment, an experimenter is closeted with a subject at SRI to wait 30 minutes to begin a narrative description of the remote location. A second experimenter [target person] obtains a target location from the target pool and proceeds directly to the target without communicating with the subject or experimenter remaining behind. The second experimenter remains

at the target site for an agreed-upon thirty-minute period following the thirty minutes allotted for travel. During the observation period, the remote viewing subject is asked to describe his impressions of the target site into a tape recorder. A comparison is made when the experimenter [target person] returns.

"Following a series of nine experiments, the results are subjected to independent judging on a blind basis by five SRI scientists not otherwise associated with the research. The judges are asked to blind match locations, independently visited, against typed manuscripts of tape-recorded narratives of the remote viewer. A given narrative can be assigned to more than one target location. A correct match requires that a transcript of a given date be associated with the target of that date. Probability calculations are on the basis of the *a priori* probability of the obtained series of matches by chance, conservatively assuming assignment without replacement on the part of the judges." (pp. 18-19) 5

Elaboration of this protocol is given in Appendix B, an unpublished 1977 communication from Puthoff to a sponsor. Comments on this protocol, as written and executed, are offered throughout this section of the report in the context of critical evaluation. Other comments are contained in Sections IV and V. 5

Results from these experiments have been reported in various progress reports, technical reports, and open literature publications. They are summarized below by subject. An overview of the ranking of each subject's transcript, by target, is presented in Table 4, along with summary statistics following the procedure of Morris (1972), as summarized in Appendix A and Appendix B.

TABLE 4. SRI RESULTS, BAY AREA TARGETS. Tabled values are ranks assigned by judges.

TARGETS	S_1: PRICE	S_4: HAMMID	S_3: SWANN	S_2: ELGIN	S_5: PEASE	S_6: COLE	V_1	V_2
HOOVER TOWER	1							
BAYLANDS PRESERVE	1		3				2	
P.V. TELESCOPE	1							
R.C. MARINA	1							
FREEMONT TOLL PLAZA	6							
DRIVE-IN THEATRE	1							
ARTS/CRAFTS PLAZA	1							
CATHOLIC CHURCH	3							
SWIMMING POOL COMPLEX	1							
METHODIST CHURCH		1						
NESS AUDITORIUM		1						
MERRY-GO-ROUND		1					1	
PARKING GARAGE		2						
SRI COURTYARD		1						
BICYCLE SHED		2						
RR BRIDGE		2			6			
PUMPKIN PATCH		1						
PEDESTRIAN OVERPASS		2			3			
CITY HALL			1					
MINIATURE GOLF COURSE			1					
KIOSK			3			5		
BART STATION				1				
SRI SHIELDED ROOM				2				
TENNIS COURTS				2				
GOLF COURSE BRIDGE				2				
WINDMILL					2			1
WHITE PLAZA					← 1* →			
AIRPORT						2		
BOATHOUSE						1		
BRIDGE OVER STREAM							1	
SWIMMING POOL								3
REPORTED p-VALUE:	2.9×10^{-5}	1.8×10^{-6}	3.8×10^{-4}		0.08		0.017	
CALCULATED p-VALUE:	2.95×10^{-5}	1.84×10^{-6}	3.83×10^{-4}		0.08		0.018	

*: JOINT TARGET

Subject S_1: Price. This subject, a former California police commissioner and city councilman, "indicated the functioning of a remote perceptual ability. A Hoover Tower target, for example, was recognized and named by name. Nonetheless, in general, the descriptions contained inaccuracies as well as correct statements." (Puthoff and Targ, 1976, p. 335) U

Of the nine targets viewed by Price, an SRI research analyst who served as judge correctly matched seven to the correct transcript, as indicated in Table 4. The authors conclude that this result is significant at $p = 2.9 \times 10^{-5}$ by exact calculation, using Morris' (1972) procedure. Our calculations verify this p-value at 2.95×10^{-5}. U

In Experiments [targets] 3, 4, 6, 7, 8, and 9, Price was secured in a double-walled copper-screen Faraday cage, which provides 120 dB of attenuation for RF radiation over a range of 15 KHz to 1 GHz. For magnetic fields, the attenuation is 68 dB at 15 KHz and decreases to 3 dB at 60 Hz. The authors conclude that this shielding does not reduce the subject's remote viewing performance, a conclusion which appears quite valid based upon the rankings of Table 4. U

Subject S_4: Hammid. This subject was a professional photographer selected for her successful performance in an earlier EEG experiment. She had no previous experience with apparent paranormal functioning.

Judging of her transcripts resulted in five direct hits and a p-value of 1.8×10^{-6} (Table 4). U

While the naive SRI analyst served as the judge for both Price and Hammid manuscripts, a panel of five SRI scientists was used as backup judges, each independently following the same Morris (1972) procedure. Under the null hypothesis of random matching, each judge would be expected to obtain

one correct match out of nine. For the Price transcripts, the backup judges obtained 7, 6, 5, 3, and 3 correct, while they obtained 5, 3, 3, 2, and 2 for the Hammid transcripts. It is worth noting that none of the backup judges, for either subject, did better than the naive "chosen" judge. A t-test comparing the backup judges' number correct against the chosen judges score results in a t of 4.34, with a p-value of 0.0019, two-tailed. Thus, the likelihood of the chosen judge being selected randomly from the same population as the five (or perhaps ten) backup judges is less than one in five hundred. Stated another way, the chosen judge did significantly better, at odds of 500:1, than the backup judges. No reason for this difference (or acknowledgement of its existence) is given by the authors.

In Targ and Puthoff (1975), the distribution of the matching responses by the five backup judges for Price's transcripts are given. As reported, the number of correct matches is highly significant although judge C matched three different transcripts to the Baylands Nature Preserve target and no transcript to either the Bridge Toll Plaza or the Swimming Pool Complex in in Rinconada Park. No explanation is given although the judges "were asked to find a narrative which they would consider the best match for each of the places they visited." (p. 154)

Subjects S_3 (Swann) and S_2 (Elgin). Subjects S_2 and S_3 are considered to be experienced subjects. Their individual results and the combined probability of their 8 transcripts being ranked as well by chance are shown in Table 4. Again, as with Price and Hammid, the results are highly significant ($p = 3.8 \times 10^{-4}$). Apparently no backup judges were used for these subjects.

Subjects S_5 (Pease) and S_6 (Cole). These two subjects were on the SRI professional staff, and were selected to balance out this series of experiments.

S_1, S_2, and S_3 were considered experienced subjects with previous paranormal accomplishments, while S_4, S_5, and S_6 were "learners." Similarly, S_4 and S_6 were female, while the others were male.

The results for S_5 and S_6 are indicated in Table 4 also. One target, the Stanford White Plaza, "came up" for both subjects, so the two transcripts were judged together. [How this target "came up" that way, or why it was not replaced, is not mentioned. Note that, in the original protocol statement, targets were to be sampled without replacement (Puthoff, 1974, August Progress Report); yet, clearly this target was sampled *with* replacement. Note also that the double transcript provided more potential information for that target than for any other in this series. It was correctly judged.]

As indicated in Table 4, the results for these subjects, taken together, failed to reach statistical significance, $p = .08$.

Subjects V_1 and V_2. Five experiments were done with these two visitors, as indicated in Table 4. The reason for these studies is that "After more than a year of following the experimental protocol described above and observing that even inexperienced subjects generated results better than expected, we initiated a series of experiments to explore further whether individuals other than putative 'psychics' can demonstrate the remote-viewing ability. To test this idea, we have a continuing program to carry out additional experiments of the outdoor type with new subjects whom we have no *a priori* reason to believe have paranormal perceptual ability." (Puthoff and Targ, 1976, p. 340)

For V_1, the quality of response was judged to increase with practice. His response to this target, the Merry-Go-Round, was considered to be a close match. (It was judged correctly, as shown in Table 4. It was also used previously with S_4.)

Subject V_2 was considered to generate one of the higher signal-to-noise responses obtained, on his first attempt. (This target, the windmill, had been previously used for S_5. It was judged correctly for subject V_2.)

The results for V_1 and V_2 combined were statistically significant, $p = 0.017$ (actually 0.018 as we calculate it).

The authors conclude that observations with unselected (inexperienced) subjects such as V_1 and V_2 indicate that remote viewing may be a latent and widely distributed ability. It is this result and assertion that has led other researchers to use inexperienced subjects, provide them encouragement, and obtain seemingly positive results, as will be seen in Section III of this report.

Precognitive Experiments

Puthoff and Targ (1976a) noted that subjects "occasionally volunteered the information that they had been thinking about their forthcoming ... experiment and had had an image come to them as to what the target location was to be. (p. 37) Hella Hammid (S_4) was selected as a subject to test this ability, largely because she had been successful on precognitive trials with the four-choice random number generator, as will be described below.

In this series, Hammid described the remote location during a 15-minute period beginning 20 minutes before the target was selected and 35 minutes before the target person was to arrive at the target site. Other elements of the SRI protocol were essentially unchanged.

The four targets, none used in previous research with her, were (1) the Palo Alto Yacht Harbor, (2) a fountain at Stanford University Hospital, (3) a children's swing in a small park, and (4) the Palo Alto City Hall. (Target (4) was used with subject S_3.)

The four transcripts were blind matched to the four locations by three SRI scientists who were not otherwise associated with the experiment. "The three judges each matched the target data to the response data without error. The majority vote of the judges thus yielded four out of a possible four hits: $P = (4!)^{-1} = .042$." (Puthoff and Targ, 1976a, p. 40) No particular explanation is offered for the excellent results.

Technology Targets

These 12 experiments were conducted to obtain data on the "resolution" of remote viewing ability. Five different subjects were used. Three were previous subjects (S_2, S_3, S_4) while two (V_2, V_3) were visiting government scientists.

The target person was sent to a laboratory within the SRI complex and, once there, interacted with the equipment or apparatus at that location. The experimenter was ignorant of the target pool, the size of which is unspecified. Targets were sampled with replacement. (Since three targets were used twice, and one three times, it seems likely that the pool contained only 12 targets.)

Subjective analyses of the responses by the authors are stated to provide "circumstantial evidence for an information channel of useful bit rate." (Puthoff and Targ, 1976b, p. 343)

The authors believed that the drawings constitute the most accurate portion of a subject's description. Thus, in the first judging procedure with these data, a judge was asked simply to rank only the drawings (without tape transcripts) to the targets. Multiple-subject responses were stapled together. The results are given in Table 5, with the analysis following

TABLE 5. RESULTS FROM TECHNOLOGY TARGETS, PUTHOFF AND TARG (1976b)

SUBJECT	TARGET	RANK
S_3, S_4	Drill Press	2
S_2, S_3, V_3	Xerox Machine	2
S_4, V_2	Video Terminal	1
S_3	Chart Recorder	2
S_4	Random Number Generator	6
S_4	Machine Shop	3
S_3, S_4	Typewriter	2
	Sum of Ranks	18
	p = 0.036	

I am at a loss to know how the classification [illegible] or SS performance as it bounces back and forth from classified + unclassified reporting!

the Morris (1972) procedure (Appendix A). The results are significant, $p = 0.036$.

In a second evaluation, a visiting scientist randomly selected the drill press data package, sight unseen, and submitted it for independent analysis to an engineer, asking for an estimate of what was described. The answer was "a man-sized vertical boring machine." Note this target was not perfectly matched, even though the description seems reasonable by this second analysis.

In Targ and Puthoff (1976), the authors also describe these experiments. They indicate the same procedure, rationale, and subjects. They further state that seven targets were used: "drill press, computer-driven flight simulator (Link trainer), Xerox machine, video terminal, chart recorder, ESP teaching machine (random number generator), and typewriter. Three of these were used twice (drill press, video terminal, and typewriter), and one (Xerox machine) came up three times in our random selection procedure. Blind matching without replacement of subject response packets (tape transcripts plus drawings) and targets resulted in four matches out of the 12, a result significant at P = .015." (pp. 36-37)

Two discrepancies in these reportings of the same data should be noted. First, the complete machine shop target in Puthoff and Targ (1976b), Puthoff and Targ (1975c), and Targ and Puthoff (1977) has become a Link trainer in Targ and Puthoff (1976). Second, the matching *without transcripts* ($p = 0.036$) became more significant ($p = 0.015$) when transcripts were added (Targ and Puthoff, 1976) although the detailed results are not presented in that report. It is unclear why the results, *including transcripts*, which were presented in August, 1975 (Targ and Puthoff, 1976), were not presented in later publications of 1976 and 1977.

Critical Evaluation: Local Targets

"The observation of such unexpectedly high-quality descriptions early in our program is what provided the motivation for the large-scale three-year SRI study of remote viewing under secure double-blind conditions (i.e., target unknown to experimenters as well as subjects)."

The "... early experiments were useful in establishing the existence of remote viewing as a real phenomenon, but were unsatisfactory as a vehicle for investigating the phenomenon from a scientific standpoint. What was needed was a protocol involving local targets that ... [would] ... eliminate the possibility of target acquisition by ordinary means .... Finally, a random target selection procedure and a blind judging (matching) of results would have to be handled independent of the researchers carrying out the experiments. Such procedures would have to be meticulously developed and rigorously followed to safeguard against charges of naivete in protocol which might permit cueing or, worse, charges of fraud and collusion .... After considerable discussion within SRI and consultation with interested scientists outside SRI, we designed an experimental protocol that promised to be foolproof and which could not be influenced by the belief structures of either the experimenters or the judges." (Targ and Puthoff, *Mind Reach*, 1977, pp. 34-35)

The protocol developed to meet these guidelines was then applied to the experiments conducted with local San Francisco Bay area targets. This protocol, its consistency of application, and its possible flaws then constitute the fundamental bases of evaluation of the SRI research. In the following pages we examine these bases in detail, by components of the

protocol, beginning with subjects, and progressing through order of experimentation, experimenters, target persons ("outbound experimenters"), target pool, target selection, subject orientation, experimenter behavior, target person behavior, and judging.

Subjects. Although Puthoff and Targ had originally planned to use three types of subjects--gifted, learners and controls--time restrictions limited them to the use of only two of these categories--gifted and learners. A third category was added later--unselected volunteers. The criteria for the selection of the gifted versus the learners were as follows:

(1) "Gifted": "Three experimental paradigms were chosen to act as screening tests on the basis that these tests had been useful for such purposes prior to this program (in the sense that certain apparently gifted individuals did exceedingly well on at least one of the tests, whereas the results of unselected volunteers did not differ significantly from chance expectation). The tests are (a) remote viewing of natural targets, (b) reproduction of simple line drawings hidden from the subject but viewed by an experimenter, and (c) determination of the state of a four-state electronic random stimulus generator .... For the purpose of screening, the criteria as to what constitutes a paranormal result was chosen arbitrarily, viz: For the purpose of screening a result is to be paranormal if the *a priori* probability for the occurrence of the result by chance, under the null hypothesis, is $p < 10^{-6}$," (SRI Progress Report, August 1974, pp, 14-16) 5

Three subjects were chosen: Pat Price, Duane Elgin and Ingo Swann.

Pat Price (S_1): This subject was chosen on the basis of his remote viewing ability: "... the caller was a businessman and a former police commissioner at Burbank I (H.P.) had met briefly a few years earlier."

(*Mind Reach*, p. 47) "... who felt he used his remote viewing ability in his everyday life and in his past work as a police commissioner." (Targ and Puthoff, 1976, p. 34), and who "... came to us with a reported history of spontaneous remote viewing experiences." (Targ, Puthoff, and May, 1978, p. 519)

In another reference, it is stated quite differently: "... two of our subjects (H.H. and P.P.) had not considered themselves to have an usual ability before their participation in these experiments." (Targ and Puthoff, 1975, p. 151) Puthoff and Targ also state: "Furthermore, Price was not a professional psychic, which opened up the prospect that perhaps there were many individuals potentially capable of remote viewing." (*Mind Reach*, 1977, p. 56)

Price, however, despite the conflicting statements above, was selected on the basis of his "... ability to describe correctly buildings, docks ..." which "... indicated the functioning of a remote perceptual ability." (Puthoff and Targ, 1976b, p. 335) Although Puthoff and Targ feel that Price shows evidence of remote perceptual ability they also indicate: "it was clear to us as we went along that the results being generated were of superior quality ...." (*Mind Reach*, p. 56) Does this imply that prior results were not superior?

Duane Elgin (S_2): This subject was selected on the basis of his work with the four-state random stimulus generator. Some confusion, however, seems to exist as to whether or not he was actually screened on the basis of the NASA screening study: "... we decided to extend our investigations to include the two outstanding (ordinary) subjects who had been uncovered in a broad-based screening experiment including 147 volunteer subjects.

The subjects for this experiment were an SRI scientist, Mr. D.E., and a professional photographer, Ms. H.H." (Targ and Puthoff, 1975, p. 155) Puthoff and Targ further state: "Mr. Elgin from Stanford Research Institute is the one who worked with the teaching machine through the entire year. He maintained high scores, in both the pre-test and the post-test, at a level of 10^{-6} ...." (Targ and Puthoff, 1975, p. 173)

In a different publication, discussing the same study: "In the exploratory and screening phases of the experiment, a total of 147 subjects, we identified six subjects who had a postive slope significant at the P = .01 level or better .... Excluding these six subjects, we found that the slopes of the remaining 141 subjects appeared to be normally distributed .... It should be noted that two subjects (not among the six who showed learning) had significantly high scores over their total testing period. One had a mean run score of 30.50 over 1400 trials, an occurrence with a binomial probability of 2×10^{-6}. The other had a mean run score of 29.57 over 2800 trials with a binomial probability of less than 10^{-6}. (Targ and Cole, 1975, pp. 28-29) Could one of these subjects be Elgin?

"Elgin simply began by scoring high at the beginning of the experiment and continued at the same rate throughout" (*Mind Reach*, 1977, pp. 27-28), so he cannot be considered to be one of the subjects who showed learning. "Of the 147 volunteer subjects, six were identified whose learning performance was significant at the 0.01 level or better .... In our report we took these preliminary findings to indicate that there is evidence for paranormal functioning from our work with the ESP teaching machine. This evidence includes one subject who achieved scores at the $p < 10^{-6}$ level of significance in his 2800 trials."

In another source, two subjects' results are reported for the exploratory phase of the NASA study. "Subject 2 had a mean score of 30.50 over 1400 trials and had a learning curve of .714." (Gardner, 1975, p. 115) These two subjects, however, are not SRI employees. u — ?. Agency types?

Following the exploratory phase, eleven subjects were retested with the addition of a teletype to record the results. Results fell to chance under these conditions. Additional work then continued with six subjects: "Only one subject was able to replicate his original performance. Over 2500 trials his mean score of 27.88 had a binomial probability of 4.19×10^{-4}. At his request, this subject was permitted a few clearly demarcated daily practice sessions." (Targ and Cole, 1975, p. 29) u

This, however, does not yet qualify Elgin as "... the policy research analyst who was a high scoring subject $p < 10^{-6}$" on the basis that he supposedly is not one of the two subjects used in the exploratory phase and other than those two subjects, none have results meeting that criterion.

The remote viewing subjects were also asked to work with the random stimulus generator. In discussing these experiments, "we asked Elgin to participate in another replication experiment. This time the mechanical recording device was removed altogether, but at the price of being under continuous surveillance by an experimenter who would record the scores after each twenty-five trial run .... Elgin was permitted 'freebie' practice .... Elgin did regain a high scoring rate ... this time significant at odds 2,000:1 ...." (*Mind Reach*, p. 128) And "At a later time, subject S_2 was asked to repeat the entire experiment, and he was able to replicate successfully a high meaning score (27.88/100 trial average $p = 4.8 \times 10^{-4}$." (Sponsor memo) Although Puthoff and Targ show inconsistency in their

reporting of the results, Elgin has been identified as the same subject reported in the other source. U

Why, however, do Targ and Cole neglect to include what is reported as earlier work with Elgin: "Data was collected from subjects S_1 - S_6 .... For the six subjects, only one (S_2) scored significantly above chance. For the 2500 trials that subject averaged 29.36 hits/100 trials ... $p = 3 \times 10^{-7}$." (Sponsor memo) Why is Elgin's replication study reported as his third: "Elgin did regain a high scoring rate during this third experiment, this time significant at odds of 2,000:1 ...." (*Mind-Reach*, 1970, p. 128) Elgin, it should be recalled, worked with the teaching machine for over a year, beginning, therefore, during the summer of 1973. Was Elgin one of the subjects discussed in the exploratory phase of the NASA study? U

It should be noted that Puthoff and Targ comment: "We had a more difficult time finding a third subject to go with Pat and Ingo." (*Mind-Reach*, p. 70) despite the fact that one of the screening criteria was the determination of the state of a four-state electronic random stimulus generator especially since "In our report, we took these findings to indicate that there is evidence for paranormal functioning with the ESP teaching machine." (*Mind-Reach*, p. 180) U

Ingo Swann (S_3): Swann apparently was selected on the basis of his remote viewing capabilities: "We have found two individuals - Swann was the first - capable of such a high degree of remote viewing .... (*Mind-Reach*, p. 56), although this is somewhat qualified elsewhere: "... subject 3 is tentatively classed as gifted in remote viewing ...." (SRI Progress Report, August 1974) This, however, is not what was first reported: "... to three subjects screened in other programs as being gifted in the area of paranormal

perception. They are Mr. Patrick H. Price, screened for remote viewing ability, Mrs. Hella Hammid, screened for EEG correlates to remote stimuli, and Mr. Duane Elgin, screened for high scoring response to a random target generator." (SRI Progress Report, 3/3/74, p. 3) One wonders why Puthoff and Targ changed their minds concerning their subjects, and Swann is included as "gifted" and Hammid becomes a "learner". 5

(2) "Learners": Originally, Puthoff and Targ had planned to use three categories of subjects: gifted, learners, and controls. Due to time restrictions, they decided to combine the learner and control groups since "... the distinction between learners and controls was arbitrary in comparison between these categories and that of gifted subjects (SRI Progress Report, August 1974, p. 17), 5 gifted subjects having been defined as having done well on the random stimulus generator, the line drawing tests, or in remote viewing. The criterion, however, is represented a little differently elsewhere: "The *a priori* dichotomy between gifted and learners was based on the experienced group having been successful in other studies conducted before this program and the learners group being inexperienced with regard to paranormal preception." (Puthoff and Targ, 1976b, p. 335) This criterion is even further defined: "Since we could not pretest our subjects without violating the intention of the experiments, our criterion for selection of inexperienced participants was simply to choose intelligent, cheery, agreeable people with whom we would enjoy working." (*Mind-Reach*, p. 70) Hella Hammid, Marshall Pease, and Phyllis Cole were chosen. 4

Hella Hammid (S_4): Hammid is classified as a learner despite the fact that "She was selected ... on the basis of her successful performance as a percipient in the EEG experiment ...." (Puthoff and Targ, 1976b, p. 336)

"... three subjects screened in other programs as being gifted in the area of paranormal perception ... Mrs. Hella Hammid ..." (SRI Progress Report, 3/12/74, p. 3) and, "... we decided to extend our investigations to include two outstanding (ordinary) subjects who had been uncovered in a broad-based screening experiment ... Mr. D.E., and ... Ms. H.H." (Targ and Puthoff, 1975, p. 155)

Although Hammid had been successful in the EEG program, she is reported to have "... no strong feelings about the likelihood of her ability ...." (Puthoff and Targ, 1976b, p. 336) One must also take into account that though she undoubtedly fit the description of being cheerful, intelligent, and agreeable, she was also a friend: "I (R.T.) had known Hella for more than a dozen years ...." (*Mind-Reach*, p. 73) Having known Hammid for more than a dozen years, speculation leads one to wonder if Hammid is the "she" that was such a successful subject in his earlier work with the ESP teaching machine.

Marshall Pease (S_5): Little is known about this subject other than he is a member of the SRI professional staff.

Phyllis Cole (S_6): This subject is also with SRI, a mathematician in the computer science laboratory. As will be seen later, Cole is not only a subject, but also an experimenter.

From the above, it is apparent that the second test to be used for screening of subjects was never used. Under 1b. (SRI Progress Report, August 1974), experimentation is reported in progress. The only other known line drawing experiments are those conducted with Geller. One is led to speculate that the furor caused by Puthoff and Targ's reports of their early work with Geller led Puthoff and Targ to eliminate this subject.

Reports on the Geller work also show inconsistencies.

(3) Unselected volunteers (V_1, V_2): "Our observation that apparently everyone can experience remote viewing was a particularly hard-won truth which emerged from our efforts to handle the following problem ... no matter how miraculous the result of an ESP demonstration, an observer often tries to discount it as a lucky day, or is convinced later by a skeptical colleague that he is mistaken, deceived, or both .... Fortunately, we evolved a simple way to remedy the mistake-or-deception problem: by a frontal assault. In a word, the only way to be sure that an observer has seen something psychic is to have him do it himself-- ...." (*Mind-Reach*, p. 6) Hence, "our skeptical government scientist agreed to be a subject in a series of three of our standard remote viewing experiments." (*Mind-Reach*, 1977, p. 6) and "Many scientists from the government and elsewhere have visited .... Our second visitor ...." (*Mind-Reach*, 1977, p. 88)

Order of Experimentation. Prior to the actual demonstration-of-ability experiments, mock experiments to facilitate learning are performed. These consist of the subject in the laboratory attempting to remote view while the target person, with the use of a walkie-talkie connection with the laboratory-bound experimenter provides immediate feedback of the target to the subject.

Since it is difficult at times to separate the order in which a subject is used in these two types of experiments, both types will be dealt with at the same time. Each subject will be discussed separately.

(1) Pat Price (S_1): Price's series of nine experiments was the first to be completed from all reports in the publications dealing with remote viewing of local targets. It is reported that one mock experiment was carried out with this subject although no details are given. (SRI Progress

Report, August 1974)

(2) Duane Elgin (S_2): One might logically assume that subjects were run in numerical order. Experimentation apparently was underway following the Price series: "Experimentation is in progress with subjects 2 and 4, two transcripts having been obtained from each to date." (SRI Progress Report, August 1974) In addition, in August 1974, it was reported: "Based on the results of the Price experiments, we decided to extend our investigations to include the two outstanding ordinary subjects .... The subjects for this experiment were ... Mr. D. E. ... and Ms. H.H. ...." (Targ and Puthoff, 1975, p. 156)

Confusion exists, however, when one finds: "Having completed 22 remote viewing experiments ... 9 each with Pat and Hella, and four with Ingo ... we therefore decided to do four experiments with each of the remaining subjects ...." (*Mind-Reach*, p. 80)

Confusion also exists when it is reported: "In Duane's first try, the outbound experimenters were sent ... to the Bay Area Rapid (BART) Station ...." (*Mind-Reach*, p. 80), when in another source, it is reported that of the four experiments conducted with Elgin and Hammid, the first of which is Hammid's: "In the second experiment, the experimenter (Phyllis Cole) was led by the throw of a die to a shielded room ..." and "In a third trial, the experimenters ... went to the Bay Area Rapid Transit (BART) Station ...." (Targ and Puthoff, 1975, pp. 156-158). In all publications, BART is listed as Elgin's first experiment, the shielded room second.

(3) Ingo Swann (S_3): Swann, the originator of the entire experiment and whose remote viewing abilities have been so successful prior to the remote viewing of local targets, apparently is not used until later in the series. Although referred to as the first subject in one publication: "... a second subject in the remote viewing program, Mr. Pat Price ..." (SRI Progress Report, 3/12/74, p. 14), Swann somehow becomes S_3.

Although it is stated "Having completed twenty-two remote-viewing experiments-nine each with Pat and Hella, and four with Ingo ..." (*Mind-Reach*, p. 80), it is otherwise reported. Having completed a series of 18 remote viewing experiments ... 9 each with experienced S_1 (Price) and S_4 (Hammid), additional replication experiments, four with each S, were carried out ... S_2 (Elgin) and S_3 (Swann)." (Puthoff and Targ, 1976b, p. 338) At the time Elgin's experiments are reported in Targ and Puthoff (1975), Swann is not mentioned. In addition, Swann's drawing of Palo Alto City Hall (Puthoff and Targ, 1976b, Figure 7, p. 340) is dated "13 November 1974." Puthoff and Targ verify this: "the quality of transcript that can be generated ... is most evident from the results of our most recent experiment with Swann. The target location chosen ... was the Palo Alto City Hall." (Puthoff and Targ, 1976b, p. 339)

This experiment incidentally is listed first in all publications, even though on his drawing of this target "miniature golf course from yesterday?" (Puthoff and Targ, 1976b, p. 340), appears and the miniature golf course appears as the second listed target.

Swann, however, ends his stay at SRI in August 1973: "The end of the summer brought to an end our eight month program with Ingo Swann. He had not only introduced us to paranormal functioning of a caliber we had not

expected, but also defined the role of co-worker and contributor." (*Mind-Reach*, p. 45)

By March of 1974, Swann was in New York City: "... after Swann had returned to New York City, he and Sherman carried out a similar experiment to probe mercury ... the experiment was carried out on the evening of March 11, 1974 ... with Swann in New York ...." (*Mind-Reach*, p. 211)

He is also in New York on September 27, 1974 for the abacus/clock experiment: "As a demonstration for a group of interested scientists outside SRI, we were challenged to arrive unannounced in New York City and to invite Swann over to our hotel room .... Today is Friday, September 26, 1974." (*Mind-Reach*, pp. 38-39) Did he return to do his series of experiments, one of which is dated November 13, 1974? And the "miniature golf course from yesterday?" (*Mind-Reach*, p. 38)

If he returns, then there is quite a lapse between his mock experiments and his actual demonstration-of-ability tests, since his mock experiments are reported at the same time as the first two experiments with Elgin and Hammid. "We have done some experiments with walkie-talkies subsequent to this whole series we have described here ..." (the Price series). "... where we wanted to give the subject direct feedback to help him learn .... In our most recent data, with this subject and with Swann, Harold has been going to high strangeness areas ...." (Targ and Puthoff, 1975, p. 172) — ?

Yet, as has been stated earlier, it is reported that his series of four experiments were completed after Price and Hammid and that his mock experiments were reported in an August 1974 publication along with Elgin and Hammid's first two experiments. In addition, "To complete the series, four experiments were carried out with learner subjects S_5 and S_6 ...."

(Puthoff and Targ, 1976b, p. 339) Cole's first transcript is dated October 7, 1974 (*Mind-Reach*, p. 104) and Swann's 13 November 1974. Confusing? u

In addition, it is also stated that only two mock experiments were carried out with Swann (SRI Progress Report, August 1974) and yet it is reported: "... in the walkie-talkie experiments, wherein we are able to do one right after the other ...." (Targ and Puthoff, 1975, p. 177) S

Hella Hammid (S_4): Some confusion revolves around one particular target "the actual target building was a fifteen-foot-high model of a little red school house at a local miniature golf course ..." (*Mind-Reach*, p. 75) although it is also placed in Redwood City (Targ and Puthoff, 1975, p. 156). In March 1974, the following was reported: "a preliminary remote viewing experiment was carried out .... The subject's response was that she saw a red clapboard structure with a steeple .... Based on this result, a series of remote viewing experiments under strict protocols are planned with this subject." (SRI Progress Report, 3/12/74) S

In August 1974, this same "preliminary remote viewing experiment" is reported as being a demonstration-of-ability experiment, and was reported with Elgin's first two experiments: "The following gives a summary of the four experiments done with the two ordinary subjects from the screening study. In the first experiment, H.H. described a ... red, wooden building with a pointed roof ... the building where the experimenter, Dr. Puthoff, stood was a 4.5-meter-high caricature of a schoolhouse and miniature golf-...." (Targ and Puthoff, 1975, p. 156) L

Later, this same target is described quite differently: "In this particular experiment, Hella made her maiden voyage into remote viewing while standing on the roof of our engineering building. Our walkie-talkie,

unlike remote viewing, doesn't operate through walls ... the tape recording of Hella's first mock experiment beings: ... HELLA: I see a little house with red, overlapping boards. It has white trim and a very pointed roof. But the whole thing feels fake, like a movie set." (*Mind-Reach*, pp. 74-75)

Note also the discrepancy in reporting a tape-recorded experiment: "... H.H. described ... red, wooden building with a pointed roof. The building was further described as being made with ... overlapping boards and has a white trim. Furthermore, she said the ... building is empty, as though nothing is going on inside. And the whole place seems artificial like a movie set." (Targ and Puthoff, 1975, p. 156)

It is also interesting to note that the walkie-talkie does, in fact, operate through walls: "the subject and two experimenters (one of whom was R.T.) are in a first-floor laboratory in building 30 at SRI ... H.P. and R.T. are in two-way radio communication via walkie-talkie ...." (SRI Progress Report, 3/12/74) In addition, if walkie-talkies are being used and these mock experiments are for training purposes only, why tape-record them?

(5) Marshall Pease (S_5): From all that is known, this subject was apparently tested toward the end of the series. "To complete the series, four experiments each were carried out with learner subjects S_5 and S_6 ...." (Puthoff and Targ, 1976b, p. 339) No mock experiments are reported for this subject.

(6) Phyllis Cole (S_6): This subject also is tested near the end of the series. "To complete the series, four experiments were carried out with each of the two learner subjects ... Marshall Pease and Phyllis Cole." (*Mind-Reach*, p. 84) Although this is the way it is stated in the text, Phyllis Cole's first experiment is actually run prior to that of Swann's

(Palo Alto City Hall (11/13/74) miniature golf course, 11/12/74) although there is inconsistently regarding this. "Following is the unedited transcript of the *first* experiment with an SRI volunteer, Phyllis Cole .... Today is Monday, October 7 ...." (6, p. 104)

(7) Unselected volunteers (V_1, V_2): "After more than a year of following the experimental protocol ... and observing that even inexperienced subjects generated results better than expected, we initiated a series of experiments to explore further whether individuals other than putative psychics can demonstrate the remote viewing ability." (Puthoff and Targ, 1976b, p. 340)

It is worthwhile to stop and consider the use of the word "putative" meaning commonly accepted or supposed, reputed, assumed to exist or to have existed, applied to individuals who are also considered "learners". It should be noted that the use of this word is removed from other publications.

The other element to be noted is that if these experiments with unselected volunteers began more than a year after inexperienced subjects generated better than expected results, then the inexperienced subjects were tested prior to November 1973. The third target for V_1 is dated November 8, 1974. (*Mind-Reach*, Figure 2, p. 9) If Puthoff and Targ actually began using unselected subjects one year after the inexperienced subjects were tested, why weren't their data published? Price's data are not published until October 1974 although it had been submitted for publication on March 11, 1974. See Targ and Puthoff, 1974 (p. 607). The experiments, five in number are conducted with "... a man and a woman ..." (Puthoff and Targ, 1976b, pp. 340-341) although these two people are both referred to as being male in other publications.

"The first visitor's responses were excellent ...." (*Mind-Reach*, p. 88) A series of three remote viewing experiments were carried out, In the first experiment, Hal was sent to stand on a bridge over a stream in Burgess Park ... a second experiment ... Baylands Nature Preserve .... He also described .... After we played the tape made by the subject, and he learned ... he told us ... for the third experiment .... The subject knew where *we* had been, and we had *his* description ... his third ... the traveling orders brought us to a merry-go-round ...." (*Mind-Reach*, pp. 7-9)

"Our second visitor gave one of the best results we have ever observed in his first experiment. He began his narrative,'There is a red A-frame building ...'." (*Mind-Reach*, p. 88) The target for this experiment was a windmill, which was followed by an apartment swimming pool. (*Mind-Reach*, Table 9, p. 89) However, these visitors are later reported as being V_2 and V_3, even though the targets correspond.

It is also interesting to note that in 1977, Puthoff and Targ report: "We have carried out more than one hundred experiments of this sort, most of them successful, as determined by independent judging." (*Mind-Reach*, pp. 9-10) If so, one might assume that these total results would be published. As of this writing, we cannot account for 100 such experiments.

Experimenters. "... we set up a research program to test the remote viewing hypothesis under rigidly controlled scientific conditions." (Puthoff and Targ, 1976b, p. 334) "The protocol was to closet the subject with an experimenter ...." (Puthoff and Targ, 1976b, p. 335) This was borne out in other publications: "one E would remain at SRI with the subject ..." (Targ and Puthoff, 1975, p. 155) and "As in all our other work, one E remained with the S ...." (Puthoff and Targ, 1976a, p. 36)

However, despite the "rigidly controlled conditions", it is reported: "This is remote viewing experiment with Pat Price, Dean Brown and Russell Targ in the shielded room in Building 30 ..." (Targ and Puthoff, 1975, p. 161), the two experimenters remaining with the subject." (Puthoff and Targ, 1976b), and "... the two experimenters remaining with Mrs. Hammid." (Puthoff and Targ, 1976a, p. 38)

Target Persons. "In our standard protocol ... the target demarcation team, consisting of usually of one to three other experimenters and myself (H.P.) picked up our travelling orders ...." (Puthoff and Targ, 1976b, p. 335) This protocol, however, is not always followed either. "This is remote viewing experiment with Russ Targ, Phyllis Cole, and Hal Puthoff. In this experiment, Hall will drive to a remote site ..." (*Mind-Reach*, p. 104), and "The outbound experimenter ...." (Puthoff and Targ, 1976b, p. 340)

It also should be noted that SRI experimenters also included subjects despite the statement: "The protocol was ... In each of the experiments, one of the six program subjects served as remote-viewing subject, and SRI experimenters served as a target demarcation team ...." (Puthoff and Targ, 1976b, p. 335) From what limited resources are available of unedited transcripts, pictures, and drawings, it can be determined that the following subjects also served as experimenters in the associated targets:

(a) Phyllis Cole: Price: Allied Arts (*Mind-Reach*, p. 53)
Elgin: BART Station (Targ and Puthoff, 1975, p. 158)
Elgin: Shielded Room (Targ and Puthoff, 1975, p. 156)
Elgin: Tennis Courts (*Mind-Reach*, Figure 15, p. 83)

The reasoning behind this lies in the fact that the two figures in Elgin's drawing are labelled "H & P" and it is known that Cole was used as an

experimenter in two of Elgin's other experiments. u

(b) Hammid, Pease: Windmill The rational for this can be found in Pease's drawing in which he writes: "Hal and Hella sitting." (*Mind-Reach*, Figure 17, p. 87)

In the precognition series with Hammid, it is interesting to note: "We even brought in a professional engineering consultant (David Hurt) to independently observe and record the events. How unbiased can this "professional consultant" be if he has worked closely with Russell Targ (Targ and Hurt, 1972) and is reported by the authors to be a colleague of theirs: "Following is one such example that involved one of the authors (R.T.) and our colleague David Hurt who works with us on many experimental projects." (*Mind-Reach*, p. 197) u

Target Pool.

(a) Preparation of target pool: "(Before the experimental series began, the Director of the Information Science and Engineering Division, not otherwise associated with the experiment, established the set of locations as the target pool ...)" (Puthoff and Targ, 1976b, p. 335) [Before going further, one might stop to ask if there were any specific directions given to the director before he established this pool. Obviously some were needed if Puthoff and Targ were to have the kinds of targets they felt they were going to need.] u

(b) Size of target pool: "The target pool consisted of more than 100 target locations chosen from a target-rich environment ...." (Puthoff and Targ, 1976b, p. 335) The targets apparently were spread over a wide area: "... the target team could be going anywhere from the Golden Gate Bridge to the San Jose airport, an area covering several hundred square miles." (*Mind-*

Reach, p. 7) and another description: "He asked me to describe where a man was ... who was now somewhere 300 square miles in some direction ...." (*Mind-Reach*, Foreword, xxiv) This is stated somewhat differently in another publication: "... a remote site chosen at random from hundreds of nearby targets in the San Francisco Bay area ...." (Targ and Puthoff, 1975, pp. 151-152)

One assumes that the entire target pool has been constructed prior to the beginning of the entire series of experiments. However, in their early rendition of the *Nature* article, they state: "The set of targets were chosen from a target-rich environment by asking the selector to use his judgment in providing a set of nine target locations." (SRI Progress Report, 3/12/74) The number of locations increases by the time the paper is actually published: "In the experiments, a set of twelve target locations had been chosen from a target-rich environment (More than 100 of the type used in the experimental series prior to the experimental series ... by the Director of the Information Science and Engineering Division." (Targ and Puthoff, 1974, p. 605) Although Puthoff and Targ believe: "... we designed an experimental protocol that promised to be foolproof and which could not be influenced by the belief structures of either the experimenters or the judges." and they also believed that: "No loose thread could be permitted ..." (*Mind-Reach*, p. 35) a change has been made in the number of targets in the pool used for Price as well as the establishment of a larger target pool.

In reporting the first four experiments run with Elgin and Hammid which are reported to have followed the Price series, the list of targets included those that had apparently been used with Price either as demonstration-of-ability or as demonstration experiments. Although they qualify the list

with "among others", (Targ and Puthoff, 1975, p. 155) one does wonder how large the pool really was at this time. The other three targets that are used are the BART Station, the shielded room at SRI, and the "schoolhouse" on the miniature golf course which is reported as the target in (1) a preliminary remote viewing experiment, (2) a mock experiment, and (3) a demonstration-of-ability experiment. The question also arises as to why those particular targets come to mind? The experimenter had obviously been talking publicly about these experiments since the publication is in a proceedings of a meeting, but the demonstration targets were not discussed in the paper.

It should be noted that Price's early targets are labelled quite differently in early publications than they are in later ones. The target "Rinconada Park" (Targ and Puthoff, 1975, Table 1, p. 54; Targ and Puthoff, 1974, p. 606; SRI Progress Report, 3/12/74, Table 2, p. 17) later is changed to "Swimming Pool complex" in a 1976 publication where, for the first time, his drawing and the related city map appear. (Puthoff and Targ, 1976b, p. 336; *Mind-Reach*, p. 54) Many of Geller's drawings are included in the early publication, so why did they choose not to use a drawing that is such a good representation of the target, especially since they viewed the experimental series as a "... large-scale three-year SRI study of remote viewing ...?" (*Mind-Reach*, p. 34)

(c) Types of target: "... a list of outdoor targets ... should be prepared in advance by an experimenter who will not interact with the subject or experiment after that. The targets should be chosen to be distinctive, but not necessarily distinct from each other; that is, rather than a collection of nondescript street corners one should select bridges, towers,

fountains, gardens, plazas, etc. .... On the other hand, once having chosen a fountain-type target, there should be several fountain targets; for a bridge target, several bridge targets, etc., so you avoid the subject strategy of I had a tower yesterday, so it can't be a tower today." (SRI Protocol, Appendix B, p. 1) As far as the variety of target is concerned, the actual targets that were used meet the above criterion with one exception.

The use of the "Shielded Room" does not meet the outdoor criterion although Puthoff and Targ refer to the use of this target as one of being "nowhere" (Puthoff private communication to Karnes and Susman): "Our best effort at sending an experimenter nowhere consisted of our locking him inside a shielded room instead of sending him to an expected outdoor site." If the target is considered to be "nowhere", it certainly does not meet any of the criteria.

The question also arises as to whether or not these criteria were ever given to the director since: "The set of targets was chosen from a target-rich environment by asking the selector to use his judgment ...." Obviously, there must have been some kind of direction given if they were to have the kinds of targets they felt they were going to need. These directions are unspecified and the protocol in which the target pool selection is specified was apparently written after March 1976: "With regard to replication of our standard remote viewing protocols, the basic outline is as given in our tutorial paper, 'A Perceptual Channel for Information Transfer over Kilometer Distances: Historical Perspective and Recent Research,' ... March 1976." There are no specific criteria given in this publication except for the number in the pool, driving time from SRI, and a mention of "natural" targets in the "Summary" section.

(d) Distance of targets: As has been discussed above, "the target team could be going anywhere from the Golden Gate Bridge to the San Jose airport, an area covering several hundred square miles ..." (*Mind Reach*, p. 7), although this is qualified far more in technical and recent publications; "the target pool consists of more than 100 target locations chosen from a target-rich environment." (Puthoff and Targ, 1977b, p. 21) An examination of the distances of the targets reveals that only two targets are listed at any large distance. BART Station at 10.0 miles and the "Bridge Toll Plaza at 8.76 miles. A quick calculation reveals that if the furthest target is used, the total area covered is 314 square miles. Excluding these two targets, the remainder all fall within a 100.4 square-mile area. Listed by subject, the average target distance was:

Price: 3.89 mi

Elgin: 3.57 mi

Swann: 1.81 mi

Hammid: 1.48 mi

Pease: 2.89 mi

Cole: 2.11 mi

V_1, V_2: 3.42 mi

With the exception of the marina, Redwood City, all targets that were used lay in a semi-circle south of SRI.

Although there is little information given, it is interesting to note that both Price and Elgin used some form of a geographical system during their remote viewing. Price, in the unedited transcript of the Allied Arts and Crafts Plaza, begins his transcript (*Mind-Reach*, pp. 63-68) by scanning quadrants: "Why don't I start scanning by quadrant using this as the center

point. Twelve to three, six to nine ...." It also appears that Price and Targ are using some sort of reference: "this is an arbor area ... the center part doesn't seem to have it-this part in here ...." (*Mind-Reach*, p. 77) It appears that Price is making a drawing. Perhaps he is also making a map when he states: "Yeah, I got them out about this far-it's not far away-I'd say in this direction over here ... and it seems to be on a line just about in that direction but just a hair more--rather than a direct line from here ... they seem to be just slightly more to the left of that line ...." (*Mind-Reach*, p. 65) It is also interesting to note that although Price is scanning the quadrants and he begins logically he next goes to the opposite quadrant: "Twelve to three, six to nine ...." He does this twice before he includes nine to twelve, despite the fact that he states: "... but I'll go on in the rest and look ...." He never does mention scanning three to six. u

Elgin also uses a system: "Duane held a bearing compass at arm's length, and began the experiment by indicating the direction of the target demarcation team to within 5 degrees. (In all four experiments with Elgin, he was always correct within ten degrees of the correction direction.)" (*Mind-Reach*, p. 82) If Elgin is able to do this, who is the subject referred to in the following: "In two remote viewing experiments, the second of which was clearly correct from a descriptive standpoint, an effort was made to determine whether in driving the subject around the area it would be possible to determine the location of the target team by triangulation with a bearing compass?" (SRI Progress Report, August 1974) Although "the triangulation lines were essentially uncorrelated with each other and with the target location, and therefore provided a null result," (SRI Progress Report, August 1974), S

were these two experiments included as demonstration-of-ability experiments?

Table 6 shows individual targets listed by distance from SRI. The precognitive targets are listed separately since these targets were not used previously although: "the experimental protocol for precognitive remote viewing ... was identical ...." (*Mind-Reach*, p. 111)

In examining Table 6, it can be seen that several targets fall the same distance from SRI as others, and it is to those that the discussion will be directed first.

Targets at 2.11 mi.: Palo Alto. The targets listed at this distance are "Swimming Pool Complex", "Merry-go-round", and "Tennis Courts". As has been noted earlier, what must be the "Swimming Pool Complex" is first listed as "Rinconada Park." (Targ and Puthoff, 1975, Table 1, p. 54; Targ and Puthoff, 1974, p. 606; SRI Progress Report, 3/12/74, Table 2, p. 17) It is not until 1976 that this target is called "Swimming Pool Complex" and is then accompanied by Price's drawing and a city map. (Puthoff and Targ, 1976b, p. 336) Price's sketch and the map show a variety of activities, physically close to one another: tennis courts, swimming pool, picnic area, and a playground. For reference, Informap, Palo Alto, prepared and distributed by the Palo Alto Chamber of Commerce, 1979, and a street map of the cities of San Mateo County, published by the Redwood City, San Mateo County Chamber of Commerce, 1976, were obtained. A description of Rinconada Park can be found on the first listed map, which shows that a junior museum is also located in the same park. An elementary school also appears to be located in that same vicinity. Since most elementary schools have playgrounds, it is safe to assume that this one does also or uses the nearby park facilities. Price's description: "... subject ... described a park-like area containing

TABLE 6. DISTANCES OF INDIVIDUAL BAY AREA TARGETS FROM SRI

TARGET	DISTANCE		RANK	SUBJECTS							
	MILES	KILOMETERS		S_1	S_2	S_3	S_4	S_5	S_6	V_1	V_2
Bike shed, Menlo Park	0.06	0.1	2				X				
Shielded room, SRI, Menlo Park	0.06	0.1	1		X						
Ness Auditorium, Menlo Park	0.12	0.2	1				X				
SRI International Courtyard, Menlo Park	0.12	0.2	1				X				
Kiosk in park, Menlo Park	0.19	0.3	3,5			X			X		
Bridge over stream, Menlo Park	0.19	0.3	1							X	
Railroad trestle bridge, Palo Alto	0.81	1.3	2,6				X	X			
Pumpkin patch, Menlo Park	0.81	1.3	1				X				
Methodist Church, Palo Alto	1.18	1.9	1				X				
Arts and Crafts Plaza, Menlo Park	1.18	1.9	1	X							
City Hall, Palo Alto	1.24	2.0	1			X					
Miniature golf course, Menlo Park	1.86	3.0	1			X					
Swimming pool complex, Palo Alto	2.11	3.4	1	X							
Merry-go-round, Palo Alto	2.11	3.4	1,1				X			X	
Tennis courts, Palo Alto	2.11	3.4	2		X						
Hoover Tower, Stanford	2.11	3.4	1	X							
Golf course bridge, Stanford	2.11	3.4	2		X						
White Plaza, Stanford	2.36	3.8	1					X	X		
Boathouse, Stanford	2.48	4.0	1						X		
Pedestrian overpass, Palo Alto	3.11	5.0	2,3				X	X			
Drive-in theater, Palo Alto	3.17	5.1	2	X							

TABLE 6. DISTANCES OF INDIVIDUAL BAY AREA TARGETS FROM SRI (continued)

TARGET	DISTANCE		RANK	SUBJECTS							
	MILES	KILOMETERS		S_1	S_2	S_3	S_4	S_5	S_6	V_1	V_2
Airport, Palo Alto	3.42	5.5	2						X		
Radio telescope, Portola Valley	3.98	6.4	2	X							
Baylands Nature Preserve	3.98	6.4	1,3,2	X		X				X	
Marina, Redwood City	4.22	6.8	1	X							
Parking garage, Mountain View	5.03	8.1	2				X				
Catholic Church, Portola Valley	5.28	8.5	3	X							
Windmill, Portola Valley	5.28	8.5	2,1					X			X
Apartment swimming pool, Mountain View	5.65	9.1	3								X
Bridge toll plaza, Fremont	9.01	14.5	6	X							
BART Station (Transit System), Fremont	10.00	16.1	1		X						

two pools of water ..." (Targ, Puthoff, and May, 1978, p. 519) appears to apply to this area.

Elgin's target is "Tennis Court." "... Elgin indicated that he was uncertain as to the action, but had the impression that the demarcation team was located at a museum (known to him) in a particular park. In fact, the target was a tennis court located in that park only 90 m from the indicated museum." (Puthoff and Targ, 1976b, p. 339) The tennis courts are also located in close proximity to the swimming pool. In such a "target-rich environment", why do Puthoff and Targ choose to use elements within a general, but what appears to be rather limited, area when they usually do not do so otherwise? Is the subject's ability to "see" so well defined that the subject is able to distinguish one specific area from another when other targets might well be within the target person's scope of vision? "Furthermore, the subjects' perceptual viewpoint has mobility so that they can shift their point of view so as to describe elements of a scene that would not be visible to an observer merely standing at ground level and describing what he sees. (In particular, a subject often correctly describes elements not visible to the experimenter.)" (Puthoff and Targ, 1976b, p. 336)

Yet, later in that same year and in reply to Calkin's comments on their basic experimental design, Puthoff and Targ reply: "It would be in our opinion premature and imprudent, for example, during the initial stages of an investigation when much remains unknown about the mechanisms and factors involved, to follow Calkin's suggestion to specify precisely on what stimuli within a target area a subject or judge is to concentrate." (*IEEE Proceedings* Letters, October 1976, p. 1549)

Thus, we have conflicting opinions regarding the degree to which the subject can focus upon and separate elements in the (wide) target area.

The "merry-go-round" used with Hammid and V_1 might also be considered in the same way as the tennis courts. It is interesting to note that "... a merry-go-round or a playground, about four miles south of SRI" (*Mind-Reach*, p. 9) is listed elsewhere and in the same reference as being 2.11 mi distant.

Targets at 0.19 mi. In examining other targets, the "Kiosk in Park" and "Bridge over Stream" may also be physically close to one another, especially since the park, according to the reference maps is even smaller than Rinconada Park. Other than an early reference to this target: "Hal was sent to stand on a bridge over a stream in Burgess Park ..." (*Mind-Reach*, p. 7), the name of the park is not used again. No other parts appear to be located at this distance from SRI.

(e) Reporting of targets: A church target has been noted in early publications, but this target was listed only as "church" (Targ and Puthoff, 1975, Table 2, p. 606; SRI Progress Report, 3/12/74, Table 2, p. 17), and was not changed until later publications to: "Catholic Church, Portola Valley." If Puthoff and Targ had planned a long-term study of remote viewing, if the target pool had been constructed prior to the beginning of the total series of experiments, and if several churches were in the target pool so as to meet their criteria (Table 4) why was *this* church not labelled specifically from the beginning. It also should be noted that the list of targets from which the first two experiments with Elgin and Hammid were chosen (a total of four which included one long-distance target) listed Palo Alto Methodist Church, "among others" (Targ and Puthoff, 1975, p. 156) and with the exception of the three local targets actually used with Elgin and Hammid

from a pool of six, consisted entirely of those used with Price either as demonstration experiments (*Mind-Reach*, p. 57) for visitors or as demonstration-of-ability experiments.

BART Station (Transit System), Fremont. This target appears to be located in two different cities: "... the Bay Area Rapid Transit station in Fremont ..." (Targ and Puthoff, 1975, p. 156) whereas the title under the picture depicting the target is "BART station at Union City, California, used as a remote-viewing target ...." (p. 159) This is also evident in *Mind-Reach*. A San Francisco Bay Area Regional Transit Guide issued by the Metropolitan Transportation Commission, 1976, shows BART stations at both Union City and Fremont.

Tennis Courts. Elgin's target of "tennis court" is also a demonstration-of-ability experiment: "this was a demonstration experiment for a visitor who had heard of our work and wanted to evaluate our experimental protocol. The target location in this case was a tennis court 3.4 km south of SRI." (*Mind-Reach*, p. 82) Why was Elgin's target included as one of his four demonstration-of-ability experiments whereas Price's are not: "Price's rough and ready approach made him ideally suited to the demonstration type experiment that we were continually tasked with early in our program. In one demonstration for a potential sponsor, our standard protocol sent us to a building in the hills behind the Stanford campus ... an Artificial Intelligence Laboratory ... a beer garden housed in a century old building ...." (*Mind-Reach*, p. 57)

(f) Target security: "When the target list is made, each target location should be written on a card and placed in an envelope, the envelopes randomized and then numbered so as to lose all track of a key. These should

be stored in a secure safe or similar container." (SRI Protocol, Appendix B, p. 1) If the purpose is to lose track of the order of the targets, why is it necessary to number the targets after they have been randomized? Numbering provides a new key. If one target is used at a time, a record could be kept after the target is used. Within any series, the targets were not replaced so that the use of numbers seems superfluous. Targets once used for a series can then be replaced, re-randomized and used again in a similar manner. In addition, the protocol for selection of the target pool was not followed, but rather pools of targets were selected, and then randomized. Who selects the target pool is also unclear.

Despite their proclaimed double-blind conditions, there is a possibility that leakage could occur. Where were the targets kept once they had been selected? Apparently, two or more experiments were not run on the same day. Were specific targets chosen to form the pool? Table 4 reveals multiple use of several targets.

In addition, the target pool was not unknown, despite their statement: "the experimenter remaining with the subject was kept ignorant of both the particular target and target pool so as to eliminate the possibility of cueing ...." (*Mind-Reach*, p. 335) The target pool is known since:

(1) Remote viewing *results* are shown to the subject prior to an experiment: "Before the experiment, the subject should be shown some previous remote viewing results ...." (Protocol, Appendix B, p. 1)

(2) "An informal comparison was then made when the demarcation team returned, and the subject was taken to the site to provide feedback." (Puthoff and Targ, 1976b, p. 335) The experimenter does not leave and is included in the feedback: "When the outbound experimenter returns, the

inbound experimenters and subject should proceed to the target for feedback." (Appendix B, p. 1) and

(3) Subjects are also used as experimenters.

(g) Selection of targets from the pool. "... we designed an experimental protocol that promised to be foolproof and which could not be influenced by the belief structures of either the experimenters or the judges. No loose thread could be permitted." (*Mind-Reach*, p. 35) "The target locations were printed on cards sealed in envelopes and kept in the SRI Division office safe. They were available only with the personal assistance of the Division Director who issued a single random-number selected target card that constituted the traveling orders for that experiment." (Puthoff and Targ, 1976b, p. 335) From this statement in their tutorial paper, it is apparent that single target selection by the director was considered to be the protocol for this element of the experiment. As has been discussed earlier, this single target was selected from a pool of "greater than 100" targets, although it has been shown that in Price's series only nine or twelve targets comprised the pool.

A closer examination of the literature reveals that more inconsistencies appear. With Elgin and Hammid, in their first four experimental sessions, two each, it is reported: "The traveling experimenter, who had a list of six San Francisco Bay area locations that could be reached in no more than 30 minutes driving time, then cast a die ...." (Targ and Puthoff, 1975, p. 155) Not only does the experimenter do his own randomizing, but in addition, he makes the selection. The target pool consists of only six targets rather than the 100, of which four will be used. As has been stated previously, one of those four experiments was reported in three different ways.

In another publication, a different number of targets are selected for this smaller pool: "Ten sites known to the subject are to be visited in random sequence ... the subject must then make a choice as to which site is being visited ...." (SRI Progress Report, 3/12/74, p. 1) Still another publication reports: "... we carried out a nine-experiment series which replicated the Price work ...." (*Mind-Reach*, p. 48) "Before the series began, a set of target locations was chosen randomly from a larger pool ...." (Targ and Puthoff, 1976, p. 35) How many targets were selected for the pool--nine? Twelve? Six? Ten? As for the selection: "... a set of target locations was chosen randomly ... by a person not otherwise connected with the experiment." (Targ and Puthoff, 1976, p. 35) Once the experiments were under way, how was each target selected?

Another example: "The experimental protocol for precognitive remote viewing experiments with Hella Hammid was identical to that followed in the remote viewing experiments described in Chapters 2, 3, and 4 ... one of the experimenters would leave SRI with a stack of ten sealed envelopes ... generated a random digit from 0 to nine by a means of a Texas Instruments SR-51 random number generator." (*Mind-Reach*, p. 111-113) In this publication, it is also reported: "... a random target procedure would have to be handled independent of the researchers carrying out the experiments." (*Mind-Reach*, p. 35) "In our standard protocol, ... we picked up our traveling orders from the division director, who chose one at random from his safe ..." (*Mind-Reach*, p. 48); and "A target location from a set of traveling orders previously prepared and randomized by the Director ...." (*Mind-Reach*, p. 35)

In a later publication: "The target team is assigned their target location by an independent experimenter who has generated a list of targets within a 30-minute driving time" and "the target team obtains sealed traveling orders from a monitor who has previously prepared such a set ...." (Targ, Puthoff, and May, 1978, p. 1) - S

Because of the varying manner in which the experimental series are reported, it is difficult to determine precisely how many (and which) targets were in the pool and subsequently sampled for each subject. The multiple reporting (Table 2) of most experiments, however, permits an attempt at this determination, which is summarized in Table 7. As indicated here, the sample size drawn rarely exceeds that used. If, as is the case, the total pool is not >> the sample size, then through repetitive exposure (via subject "feedback") the experimenters gradually (quickly?) become familiar with the contents of the target pool. - S

(h) Types of targets used. Since the targets used with any one subject are "... used without replacement ..." (Targ and Puthoff, 1974, p. 605), it is clear that the same target cannot come up twice within an individual series. Therefore, it is logical to examine the targets within each series of experiments as to their similarities and differences.

In the series used with Price, a similar target could have possibly come up if the target pool had been established prior to the entire series and if similar targets were included in the pool. However, it appears that this was not done: "The set of targets was chosen from a target-rich environment by asking the selector to use his judgment in providing a set of nine locations ... which were clearly differentiated from each other and within 30 minutes driving time from SRI." (SRI Progress Report, 3/12/74, p. 15) S

TABLE 7. TARGET SAMPLE SIZE, FROM WHICH TARGETS USED WERE DRAWN FOR EACH SUBJECT

SUBJECT	POOL SIZE DRAWN FOR EXPERIMENTAL SERIES[1]	NUMBER OF TARGETS USED	REFERENCE
Price	9	9	SRI Progress Report, 3/12/74
Elgin, Hammid	6	4 (2 per subject)	Targ and Puthoff, 1975, p. 155
Hammid	9[2]	9	Targ and Puthoff, 1976, p. 34; Puthoff and Targ, 1976b, p. 336; *Mind-Reach*, p. 75
Swann	9[2]	4	*Mind-Reach*, p. 36
Elgin	9[2]	2	
Pease	9[2]	4	
Cole	9[2]	4	

[1]Presumably this sample size was drawn from the larger, main target pool of "over 100 targets," but see discussion.

[2]Based upon "original" protocol used with Price.

Although it appears that a pool of more than 100 targets had not been constructed prior to the Price series, other (additional) targets are used following this series. How were they selected? In their protocol they state: "The targets should be chosen to be distinctive but not necessarily distinct from one another .... On the other hand, once having chosen a fountain-type target there should be several fountain-type targets; ..." (Appendix B, p. 1) that is, targets should also have a degree of similarity. Is there a way that such a pool could be constructed so that a subject could most easily distinguish, say, the predestrian overpass from the railroad trestle bridge? Perhaps the concepts in information theory should be considered.

Puthoff and Targ are quite familiar with the work of Dr. Milan Ryzl and had indicated that Dr. Ryzl was willing to work with them. (SRI Progress report, 3/12/74) They have used his technique of working with subjects: "His primary contribution was a decision to interact with the subject as a person, to try to build up his confidence and ability. His protocol depended on working with rather than running his subjects." (Puthoff and Targ, 1976b, p. 332) After discussing some of Ryzl's work, Puthoff and Targ continue: "... the information channel is imperfect, containing noise along with the signal. When considering how best to use such a channel, one is led to the communication theory concept of the introduction of redundancy as a means of coding a message to combat the effects of a noisy channel [30]." (Puthoff and Targ, 1976b, p. 335) They further state, although they are relating this to Ryzl's work: "... it is even possible to use such a (noisy) channel for error-free transmission of information if sufficient redundancy coding is used [30], [31]. Following is a general procedure that we have used successfully for signal enhancement. We shall assume that the 'message'

consists of a stream of binary digits (0,1) of equal probability .... One efficient coding scheme for such a channel is obtained by application of a sequential sampling procedure of the type used in production-line quality control [80]. The adaptation of such a procedure to paranormal communication ...." (Puthoff and Targ, 1976b, p. 351) Puthoff and Targ propose to use this type of coding procedure in the judging of targets in a more objective manner. They state: "... it would appear that at least five recurrent target attributes are frequently sensed correctly by our subjects." (Puthoff, Targ, and May, 1978, p. 11) They propose the use of the following attributes: inside/outside; subdued lighting/bright lighting; wet/dry; passive/active; man-made/natural. (Puthoff, Targ, and May, 1978, Table 3, p. 11) Could targets also be chosen under a similar set of attributes to which such elements as elevation/no elevation, shape, geographical location, and distance could be added?

If one examines targets with these types of criteria in mind, how would the selection of targets within any one series appear? Are targets more than just fountains, bridges, plazas, and so forth?

Although a great deal of information is not given about the targets, certain elements are quite apparent: wet/dry; elevated/flat; open/enclosed; shapes (square, circular, etc.); and active/passive. See Table 8,

Elgin's and Swann's targets could be assigned quite easily into these various categories. It is interesting to note that Puthoff and Targ remark: "The transcripts of subject S_4, more than those of other subjects, had descriptions of the feel of the location, and experiential or sensory gestalts-for example, light/dark elements ... indoor/outdoor, and enclosed/open distinctions." (Puthoff and Targ, 1976b, p. 345) They also comment

TABLE 8. ELGIN (S_2)/SWANN (S_3) TARGETS AND THEIR CHARACTERISTICS

Target (Subject)	Target Attributes				
	Elevated-Flat	Wet-Dry	Enclosed-Open	Light-Dark	Passive-Active
1. BART Station (S_2)	E	D	O	L	A
2. Shielded Room (S_2)	E	D	E	D	P
3. Tennis Court (S_2)	F	D	O	L	A
4. Golf Course Bridge (S_2)	E	-	-	-	P
5. Palo Alto City Hall (S_3)	E	W	O	L	A
6. Miniature Golf Course (S_3)	F	D	O	L	A
7. Kiosk in Park (S_3)	F	D	E	D	P
8. Baylands Nature Preserve (S_3)	F	W	O	L	A

NOTE: Blanks are left where there is not sufficient information on which to base an attribute. These attributes are merely suggestive, however, since the actual target may be other than the elements actually described, such as Palo Alto City Hall in which the building could also be used rather than the fountain, as is seen in Hammid's precognition series in which a fountain is not mentioned (Puthoff and Targ, 1976b, p. 348).

on each individual's specific way of describing a target, although they relate this to post-experimental analysis: "Comparing the transcripts of one subject with those of another revealed that each pattern tended to focus on certain aspects of the remote target complex and to exclude others, so that each had an individual pattern of response, the consistency of each subject's overall approach suggests that just as individual descriptions of a *directly* viewed scene would differ, so these differences also occur in *remote*-viewing processes." (Puthoff and Targ, 1976b, p. 345)

Assume then, that the target pool consists not of randomly selected, distinct targets, but rather of targets differing uniquely on combinations of several attributes or dimensions (e.g., tall/flat, dry/wet). If each of these attributes has two states, and if there were six such attributes, then the number of unique targets which could be defined, without confusion, would be $2^6 = 64$. At least six such attributes have been noted, and less than 64 targets in the bay area have been used.

One should then ask if targets were really selected on the basis of these attributes, dimensions which a traditional experimental psychologist might call "independent variables." The answer may be provided directly in the following.

In Puthoff and Targ's reply to Calkins' comments concerning their experimental design, they state: "In keeping with accepted methodology in experimental psychology we emphasized rigid control over variables that might have introduced bias into our results .... A series of independent variables (IV's) that Calkins chooses to ignore (target site characteristics such as distance, elevation, presence or absence of water, etc.) were manipulated by random selection ...." (*Proceedings of the IEEE*, October 1976,

Letters, p. 1549)

But, they go on to say: "In short, precise experimental control was used where appropriate to eliminate ambiguous conditions, independent variables were systematically manipulated ...." (p. 1549) Puthoff and Targ do then use a "coding" system with which they describe their targets and these are then "... *systematically* manipulated ...."

Were these targets selected so that the target attributes (to which subjects are most sensitive) define a unique target for each attribute combination? Perhaps so, and this raises no experimental problem as long as there is no "leakage" of any target attribute information by nonparanormal means to the subject while (or *before*) he is viewing the target. We then turn to the question of how such leakage might occur.

Targets are often familiar to the subjects as all of them resided in the area during their experimentation: "... ten sites known to the subject ...." (SRI Progress Report, 4/24/74, p. 1) However, even though the subjects may be totally familiar with the targets, how does this help them distinguish one target from another during a demonstration-of-ability experiment? A feasible solution lies in the use of feedback.

Puthoff and Targ uses feedback in numerous situations, extensive enough to cause one scientist (Feinburg) to comment: "... And from what you told me about the remote viewing of the Bay area, plus what I saw when I visited you, it seems to me all of those exchanges involve an extreme amount of feedback to the subject at the end of a run. That is, from what I recall, when you came back you told the subject, 'We were here, we saw this and this.' In fact, sometimes you even then took the subject to those places." (Targ and Puthoff, 1975, p. 177)

From the beginning, Swann and Price were given some feedback: "In the case of the coordinates, Price was given very limited feedback, as to the overall nature of his correctness." (Targ and Puthoff, 1975, p. 174) In fact, Swann feels: "This is as far as I can go with out feedback, and perhaps guidance as to what is wanted." (Project SCANATE Report, pp. 4-5) Swann also received feedback on the other site discussed in this same reference before making a second transcript a day later. 5

Puthoff and Targ also use feedback prior to the actual demonstration-of-ability tests. "Before beginning a formal experiment ... with Hella, we set up an orientation series of mock experiments using a walkie-talkie link as a method of providing a comfortable transition into the type of experiment we wished to conduct.... In these mock experiments ... the subject is asked to describe simultaneously what the remote experimenter is looking at." (*Mind-Reach*, p. 74) It is difficult to reconcile this with: "Since we could not pretest our subjects without violating the intention of the experiments, our criterion for selection of inexperienced participants was simply to choose intelligent, cheery, agreeable people ...." (*Mind-Reach*, p. 70) u

These mock experiments were carried out with at least four subjects. The number of such experiments actually performed has been reported in various ways for Hammid. Targ does state: "It would be particularly easy to do in the walkie-talkie experiments, wherein we are able to do a number of experiments, one right after another." (*Mind Reach*, p. 177) u

In addition, a great deal of information could be gathered from a particular site during the time the demarcation team is at the site. Subjects also were used as experimenters and, hence, were at target sites during an

actual experiment.

Clearly, by a variety of these processes, subjects (and experimenters) built up a gradual familiarity with elements of the target pool.

In Puthoff's letter (of 28 March 1978) to Karnes and Susman concerning their experiment, he states: "Your subjects did not receive immediate feedback as to the correct site (since they were kept blind to judge). In fact, looked at from a pedagogical point of view they received post-experiment noisy feedback in which they viewed several pictures, only one set of which pertained to the site. We have found remote viewing to be extremely sensitive to the feedback parameters. For example, we recently completed a series of 7 experiments to examine this specifically: 3 with feedback, 3 without feedback, 1 with feedback. The first three and the last one were perfect hits (as determined by a binary coding system which is completely objective) while the three without feedback were complete misses." In a recent publication they also state: "In past programs we have conducted two series of experiments with experienced remote viewing subjects to determine the effects of withholding feedback. Both of these series failed to give a single successful outcome in the no-feedback conditions. This result offers strong evidence that feedback is an essential element for successful remote viewing, whether the reasons be psychological or physical." (Puthoff, Targ, and May, 1978, p. 13)

If a "no feedback" condition occurs for an experiment, it occurs following the viewing and response. Does this mean, therefore, that the subject does not respond to the following target correctly? If so, could it be that he has no way of knowing what type of target or targets have been used previously, and what has been eliminated from the target pool?

Taking an extremely skeptical position, could it also mean that the (inadvertent?, subliminal?) cues available to him during the experiment cannot be decoded?

Could a subject learn to differeniate various types of targets using some sort of a system? Swann worked with experimenters at the ASPR: "The routine of these experiments ran over some fourteen months." (Swann, 1975, p. 104) He states: "the entire battery of experiments, however, was exceedingly meaningful as a learning procedure since the extrasensory perception was seen to increase both in scope and accuracy as the experimentation increased." (Swann, 1975, pp. 104-105) "Initially a five-digit number was used as a target ... but Swann was unable to identify unmistakably any five-digit number .... So these experiments used an open-topped box near the ceiling with randomly selected objects in it, thus requiring only easier figure-ground discriminations." (Mitchell, 1974, p. 365)

Swann, who refers to himself in the third person in his book, comments: "By now the subject was used to the attitudes at the ASPR." (Swann, 1975, p. 6) This statement is made in January 1972, apparently after quite a period of experimentation. Had he also been able to learn what kinds of targets the experimenters used, i.e., simple figure-ground discriminations? Out of the experiments run over fourteen months, only "... eight sessions considered impeachable from an experimental point would be submitted for independent judging. The judge correctly identified all eight drawn responses with the correct target ... this seemed a good beginning."

Following one experimental session in January 1972, Swann comments: "To him, all argumentation, speculation, and hypothesis aside, it had been an important day. If the results of the experiment were unclear to the

researchers, they were good enough to convince him of one important understanding. "Yes, yes, he breathed, dipping into the stale air of the subway system. It is possible! It *can* be done!" (Swann, 1975, p. 8) He further states: "Before I was invited to SRI, as the experiments in which I became involved progressed, it seemed more likely that all one had to do in terms of awareness was to approximate (by a process yet unknown to physics) whatever it was one wished to perceive .... I was reasonably convinced that, until one consciously can do this-that is, duplicate in terms of awareness what it is one wishes to perceive paranormally-all will be black and remain black. The tendency of memory to present to consciousness a 'picture' of whatever is being recalled seemed close to this idea, but memory in most cases appeared to be under only a quasi-consciousness-control system, if not completely automatic." (Swann, 1975, p. 51)

Swann contacts SRI and after numerous phone conversations with Puthoff, (Swann, 1975, p. 56) is invited to SRI for preliminary experimentation about which he comments: "... it was possible for me to go to SRI to 'poke around' in association with Puthoff with the results of this initial exploration contributing hopefully to the future establishment of a larger opportunity." (Swann, 1975, p. 56)

Swann then begins experimentation at SRI and initiates the geographical coordinate experiment, based on the rationale that: "... the psychic being would have to *reduce* into the conditions of the physical universe in order to perceive them, even through sensory mechanisms .... The psychic entity would have to think 'down' into things physical and not 'upward' from things physical into transcending situations .... The psychic entity could not relate to unknown physical targets very well in the absence of a mental or

thinking access to them." (Swann, 1975, pp. 107-108) u

There, during experimentation using geographical coordinates Swann states: "But as the experiment was run over several days, evidence mounted that the psi-ability was undergoing some sort of learning pattern, reflected in a rising curve of both accuracies and increasing descriptions of the site." (Swann, 1975, p. 110) u

He comments: "There, during an eight-month concentrated effort, some 7,000 exterior perception trials were conducted, yielding an extraordinary amount of data." (Few of these 7,000 trials have been published!) "Once more the learning pattern became visible in almost all cases. The perception of any given set of targets actually began to improve through enforced use of the unknown ability. This led, of course, toward the establishment of a trial hypothesis that the ability is accessible because it exhibits a learning pattern, and therefore conforms to the general idea that abilities improve through practice." (Swann, 1975, p. 106) u

At SRI, the following picture of Swann is reported: "This experimental effort was characteristic of Ingo's professional approach, his enthusiasm for an involvement in research. As others who have worked with Swann know, however, his contributions to paranormal research are not confined to his role as subject. He also is very articulate about his subjective experience, and slips easily into the role of co-researcher investigating the underlying laws of the phenomena .... He left with us an unmistakable sense of the breadth and the scope of the human side of the research to which we were now committed." (*Mind-Reach*, p. 43) u

In Swann's report to Puthoff and Targ, about the problems of remote viewing, from which they take several excerpts, the following seem pertinent:

"Several breakthroughs were needed to uncover the remote viewing possibilities .... If breakthroughs have tended to expose such ability, subsequent quantitative analysis has also established the existence of certain qualitative problems that need to be resolved .... For various reasons as described below, the emergence of erroneous data in subjects' responses to given targets has been given the working name of 'analytical overlay' .... u

"Accumulated responses from subjects' attempts to view distant targets indicates that the target often is actually viewed, but in some way the target also acts as a prompter for the spontaneous appearance of seemingly irrelevant data. This is especially obvious when the subjects' drawing of the target is by observation specifically applicable to the target, but his interpretations, either verbally or in the form of mental image pictures, is far from the mark .... u

"... It seems relevant to hypothesis, then, that the subject is perceiving the target at some level of awareness to prompt logical mental processing in the subject. The subject's response therefore usually includes not only descriptors relevant to the target, but also other details coming out of the logical analytical comparison doubtlessly going on as he tries to 'recognize' the target." (*Mind-Reach*, pp. 41-42) u

It is apparent that subjects can learn, but how can a subject, assuming that a target could be broken down into some sort of elemental system, learn to respond?

In the Garrett report, the authors state: "In terms of remote viewing as described by Puthoff and Targ (Reference 3-7), the methodology of sequential analysis can be a useful tool for both training and analyzing viewed results. In this context, the technique could initially be used as

a means of analyzing data obtained in a training session. This would involve a sender at a site that was sending one item of information at a time (e.g., tree). After the receiver in the laboratory had made a decision, he would be informed of the correctness of his decision so that training would occur. The sender would then be instructed to proceed to the next item of the message." (Wortz, *et al.*, 1976, Section 3, p. 5) G. ?

Isn't this the technique that Puthoff and Targ use in their mock experiments except that they use specific elements at any given site, rather than a binary digit? The following provides just such a partial example: "the capital letters signify walkie-talkie communication:

R.T.: It is now 12:35.

S-4: ... very strong diagonal ... like a zigzag that goes this way, vertically.

R.T.: S-4's FIRST IMPRESSION IS OF A VERY STRONG DIAGONAL ZIGZAG THAT'S GOING VERTICALLY, OVER. (Talking on walkie-talkie to H.P.)

H.P.: THERE IS A STRONG ZIGZAG AT MY PLACE, BUT IT IS NOT VERTICAL BUT RATHER HORIZONTAL; BUT IF SHE IS LOOKING FROM THE AIR, THAT'S EXACTLY WHAT IT WOULD LOOK LIKE. OVER.

R.T.: Can you tell what the zigzag is attached to? Whether it's part of a building or a fence on the ground?" (SRI Progress Report, August 1974, p. 9)

The session continues with one element after another discussed.

Recall that "... we set up an orientation series of mock experiments using a walkie-talkie link as a method of providing a comfortable transition into the type of experiment we wished to conduct." (*Mind-Reach*, p. 74) W

Could these mock experiments not only help the subject to visualize the site mentally, but also help the subject learn how to respond? Or how to respond (perhaps subliminally) to experimenter "prompts"?

If it can be assumed that this kind of learning could occur, how would a subject in the laboratory be able to describe the proper target? In their protocol, Puthoff and Targ state: "Before the experiment begins, the subject should be shown some previous remote viewing results .... (Appendix B, p. 1) Could these results in any way be related to the actual target?

In his letter to Karnes and Susman, Puthoff points out: "... the remote scene often appears to trigger associate memory, so that when the target is, e.g., a bridge over a stream, the subject gets an image of a bridge over a stream, *but not necessarily the same one* (an actual case--the subject in our California lab had an overwhelming image of a bridge over a stream known to him ... which he knew couldn't be the local California target, which was a different bridge over a different stream). This associate memory overlap makes it more difficult for the subject than for a blind judge ...." (p. 2)

W. G. Roll in (White, 1976) writes: "It has long been known that certain conditions facilitate learning. These are described in the 'laws of learning.' The best known are the laws of recency, frequency, and vividness (or intensity). In other words, recent events, all other conditions being equal, are more likely to be remembered than events in the remote past.... If the memory theory of ESP is correct, we expect ESP responses to be expressed in terms of memory traces that are recent, frequent, and vivid. In other words, ESP stimuli are likely to trigger memory traces that are already prepared to 'fire' ...." (p. 355)

In Price's transcript of the Allied Arts and Crafts Plaza, he comments part way through his viewing: "Right now Bart is trying to point something out that is basically the significance of the whole place. It's like that key thing, well, if you'd mentioned a salt pile I'd have blown my lid. Well, this has a significance that's just about comparable to that. I'm screening it out." And later: "There's something about the windmill that I was going to look at. Wasn't that what you were ...." Price's first mention of a windmill is shortly followed by a question from the experimenter: "What are the boundaries of the place they're at?" (*Mind-Reach*, pp. 63-68) Is some sort of a "key" given that could trigger the subject's memory?

Roll later states: "Since memory traces are the products of sensory perceptions and other familiar psychological processes, introspectively, they reflect these rather than the ESP stimulus that provokes them." (White, 1976, p. 363)

"If a memory trace is aroused in the course of normal perceptual or introspective activities, it may, in turn arouse other memory traces which are associated with it but unrelated to the situation at hand." (p. 356)

"If we distinguish between the learning, retention, remembering, and forgetting aspects of memory, the ESP response can be described as an instance of remembering something that the organism learnt in the course of its past sensory experiences or other familiar activities. This part of the ESP process is an ordinary psychological process or biological one. It is only because there is evidence that the evoked memories are relevant to some actual event which the person could not have known about by sensory or rational means that we are dealing with a parapsychological phenomenon." (p. 374)

Assuming, therefore, some sort of "triggering" process occurs either in terms of the introduction of previous remote viewing results, or some other sort of a "key", as seen in Price's transcript, are there other ways in which a subject can be "triggered"?

Their protocol for the experimenter states: "It is best that the inbound experimenter not push the subject to say a lot ... if the subject tends toward being analytical ... the experimenter must gently lead the subject into description, not analysis. (You don't have to tell me what it is, just describe what you see.) This is the most important and difficult task of the inbound experimenter.

"It is also useful for the inbound experimenter to 'surprise' the subject with new viewpoints .... The shifting of viewpoint also obviates the problem of the subject spending the entire time giving the meticulous detail on a single blade of grass or piece of concrete, which even if true, will be of no help to the judge." (SRI Progress Report, 3/12/74, p. 3) S

It is interesting to note some of the experimenter's questions in Price's transcript of the Allied Arts and Crafts Plaza after Price has scanned by quadrant and has mentioned an arbor, trees, dirt path, fountain, and red brick walkway: What kind of place is the arbor in? Is it in a field out in the open? ... Tell me about the town and country aspect. In what way does it remind you of town and country? ... Town and country means to me a covered walkway .... What do you find the boundaries of the place they're at? ... The quadrant you had them in is basically the northeast quadrant? ... If you look down on the place from above, can you get any feeling for the- is there any overall layout or plan? ... What would you say is the interest to this place? What's special about this place? ... Was Hal doing anything

besides walking along - was there any activity for Hal to do?" (*Mind-Reach*, pp. 63-68) u

It is also interesting to note the use of time in this transcript: "One forty. This is remote viewing experiment ... we expect the travelers to be at their place in about ten minutes. It's one-fifty-eight. Our travelers should be near to arriving." (*Mind-Reach*, p. 63) Experiments are to start at set times, prearranged before the target persons leave for their destination: "Together they agree on a time for the subject description to start (e.g., 30 minutes hence--the length of time required for getting to the further target in the pool ...)." (Appendix B, p. 2) Why then does Targ call out the time so frequently. It is interesting to note that the target is 1.9 km away from SRI and Targ calls out the time at 1:58, two minutes before the hour. u

Also, within the same general quadrant are Burgess Park, Stanford Arboretum, Stanford Stadium, Stanford golf course, White Plaza, and the Stanford campus which has architecture similar to that of the target. In his transcript, Price refers to "... an arbor ...", "... dirt path ...", "... fountain ...", "... Town and Country Mall ...", "... outdoor park ...", "... windmill ...", "... stadium structure ...", "... arboretum ...", "... miniature golf course ...", "... small pool of water ...", "... corner of a golf course ...", and "... small building ...", "... single story building ... pitched roof ... four poles supporting it ...." The targets used with this subject are distinct, are not used with replacement, and have been selected out of a pool of nine. In addition, subjects do think about their upcoming experiments and therefore, a process of elimination by this one subject can possibly occur.

It is interesting to note Elgin's description of the BART station: "... a simple, heavy, solid building with a unique function in ... relatively natural surroundings. In his further description, D.E. said (correctly) 'they are standing at a metal railing looking out over the scene. They are high enough up so they can see some buildings down below.' ... He sensed some ambiquity as to whether the experimenters were inside a building or not. 'I have the sense they're outside, though, but they're near a building .... Feels like it has sort of one function. One primary function.'" (Targ and Puthoff, 1975, p. 158) This description is general enough to apply to many targets such as Hoover Tower, the radio telescope, Palo Alto City Hall, and the churches, among others. S

Misreporting of the order of experimentation (see above) eliminates the possibility of knowing in what order targets are actually used, so a "triggering" analysis based on order is not feasible.

An examination for the possibility of "triggering" is possible only in the only other unedited transcript presented in all publications. In Phyllis Cole's unedited transcript, the use of time, as was seen in Price's transcript, also appears. The target for Cole in this experiment is 3.8 km from SRI and Targ states the time 4 mins after the subject has begun.

Cole makes the following statement at the beginning of the viewing: "The first thing that came to mind was some sort of a large, square kind of a shape. Like Hal was in front of it. It was a ... not a building or something, it was a square. I don't know if it was a window, but something like that so that the bottom line of it was not at the ground. About where his waist was, at least. That's what it seemed to me. It seems outdoors somehow, tree." (*Mind-Reach*, pp. 104-106) At this point, Cole's description is extremely

general-a shape and its possible position. All targets are outdoor targets and the area has many trees. This description was followed by a question by the experimenter: "Does Hal seem to be looking at that square?" Within the first four minutes of the experiment, the experimenter asks three questions, the one stated above as well as: "Can you tell if it is on the ground or vertical? ... Can you move into where he is standing and try to see what he is looking at?" In their protocol, they state: "It is best that the inbound experimenter not push the subject to say a lot, but act as if they have all the time in the world; otherwise, a subject may tend to embroider descriptions just to be saying something to please the experimenter." (Appendix B, p. 3) If this is the case, why did Targ ask three questions within four minutes? Why then does he state: "It is twenty-four minutes after eleven. Can you change your point of view and move about the scene so you can get a bigger picture of what's there?" Cole then mentions a courtyard, followed by mentioning White Plaza although she feels "... that is misleading. I have the sense ... that its a small area ...." The experimenter's questions continue as follows: "What is that? ... Are there any buildings? You described a kind of courtyard. Uusually at such places there should be a building, large or small, that the courtyard is about. Look at the end or the sides of the courtyard. Is there anything to be seen? ... Do you have any better idea of what your square was that you saw at the outset? ... Does it seem part of the scene? ... What kinds of trees do you see in this place? ... New trees rather than old trees? ... Is there anything interesting about the pavement? ... You saw some benches. Do you want to tell me about them? ... What do you think Hal is doing while he is there?" In a period of less than 15 min: "We expect this experiment to start at

twenty minutes after eleven .... It's eleven thirty-three. He's just probably getting ready to come back." The experimenter has asked fourteen questions.

It is interesting to note that Cole uses the past tense in the early part of this viewing: "The thing that came to mind was ... like Hal was ... it was ... that's what it seemed to me ... about where his waist was ...." She then changes to the present tense shortly after Targ's first question.

If a subject is actually able to perceive a remote scene, why does the experimenter feel the need to "prod" the subject?

It appears plausible then, that the (unique?) target attributes can be elicited by several sources: (1) leading or probing questions from the experimenter, clearly content-oriented and perhaps containing (e.g., time of day) cues; (2) memory trace elements from immediately preceding targets, verifiable only by knowing the true order of target exposure to each subject; and (3) demonstration trials with feedback, or selective reinforcement of particular classes of target attributes *pertinent to* the categorizations of the targets in the pool. Clearly, the subjects are encouraged to respond with as much perceptual information about the target as possible. The "proof of the pudding" then lies in the judging process.

Subject Orientation. "... one of our primary tasks as researchers is to provide an environment in which the subject feels safe to explore the possibility of paranormal perception .... All we provide is a quiet, relaxing place to work, an assurance to the subject that the ability is natural and not unique, and finally we give them the assurance that it is possible to be successful, permissible to fail, and fun to try at any rate." (*Mind-Reach*, p. 74)

The subject, experimenter, and target person(s) meet prior to the experimental session: "Yeah, I can see Bart in his red shirt and what looks like a grey paisley tie--I didn't really look at that when he was down there. The red shirt, I did." (*Mind-Reach*, p. 63) Obviously, in other cases where the subject has been the experimenter, the relationship between them is close. Margaret Mead, in her introduction to *Mind-Reach* states, "Furthermore, where much of existing research has treated the human participants as either 'subjects' ... or imposters or self-deluded addities, Targ and Puthoff have treated both their apprentice learners and experienced sensitives as collaborators and persons whose views were to be respected. It is unique here that the subjects were considered as partners in research." (*Mind-Reach*, p. xx) This type of treatment toward the subject was carried to the point that Swann had much of the original responsibility for the experiments. "These ESP experiments are a trivialization of my abilities. I want to look at something more interesting than what is in the next room .... I did some experiments at the ASPR in which I moved my viewpoint to some remote location and described what was there. That was fun to do, and the studies were statistically significant." (*Mind-Reach*, p. 27) "The cumulative results of these experiments were not to be collected for several months. When they were complete, eight sessions considered unimpeachable from an experimental point of view would be submitted for independent judging." (Swann, 1975, pp. 7-8) "The routine of these experiments ran over some fourteen months altogether ...." (Swann, 1975, p. 104) Swann, however, has been reported to have been "bored to tears" by the increasingly tedious and monotonous

procedure during his eighteen months work at the ASPR.

Arthur Hastings, SRI consultant, uses a pre-session procedure that Tart describes as: "Hastings went through a sophisticated psychological procedure (to be described at length in a future publication) to get the percipients to allow themselves to use psi .... I was particularly impressed by the sophisticated psychological procedures that Hastings had used ... so he and I discussed them at length, and I worked out a protocol for incorporating them into my workshop ...." Tart conducted a general workshop on the psi phenomenon, including the widespread success of the SRI studies. "Then I gave instructions on psychological procedures for eliciting psi for remote viewing ... to give the teams a chance to practice relaxing, visualizing, and trying to get their psi talents to operate. I then conducted a GESP test in which the task was to try to get impressions of a color slide that was sealed in a double, opaque envelope in my pocket ...." (Tart, 1977, p. 171)

Similarly, Puthoff and Targ suggest: "Before the experiment, the subject should be shown some previous remote viewing results with one goal in mind--to get across the idea that one should, as best as possible, report raw perception rather than analysis ...." (Appendix B, p. 1) Why do they advocate the actual display of real data? Why isn't a verbal description adequate? Why is this necessary when subjects have been used previously and should know the procedure? Does the process, as suggested above, help to instill in memory the target attribute "language" for subsequent use during experiments?

Experimenter behavior. "The goal of the inbound experimenter is to make it 'safe' for the subject to experience remote viewing, this typically includes a low-key pep talk as to how remote viewing appears to be a natural,

not abnormal, function, that many people have done it successfully, and always the reminder to eschew analysis and simply render raw impressions." (Appendix B, pp. 2-3) The experimenter also arranges to have lights subdued, pen, paper, and tape recorder and most importantly, during the actual transcription: "It is best that the inbound experimenter not push the subject to say a lot .... If the subject tends towards being analytical ... the experimenter must gently lead the subject into description, not analysis. It is also useful ... to 'surprise' the subject with new viewpoints ... encourage the subject to sketch .... He may do so throughout, or wait until the last five minutes if intermittent drawing would distract his concentration." (Appendix B, p. 3)

Experimenter behavior may be even more defined if Hastings' procedures are followed.

The procedure used for transcribing the remote viewing session would also be the responsibility of the experimenter. Again, there appears to be no set procedure despite the claim of an "... extremely tight protocol ...." (*Mind-Reach*, p. 37) "Our skeptical government visitor agreed to be a subject in a series of three of our standard remote viewing experiments. A tape recorder was started and the subject and experimenters identified themselves. A couple of sentences giving the time and the date, along with an announcement that the experimenter "... would be at the site in a half hour." (*Mind-Reach*, p. 6) One of two transcripts available which is "... the entire unedited text of one of the better narratives ...." (Targ and Puthoff, 1975, p. 153) reads: "ONE FORTY. THIS IS REMOTE-VIEWING EXPERIMENT WITH PAT PRICE ...." (*Mind-Reach*, p. 63) No mention of a date, which is included in Cole's transcript. "TODAY IS MONDAY, OCTOBER SEVENTH. IT IS ELEVEN O'CLOCK AND

THIS IS REMOTE VIEWING EXPERIMENT WITH RUSS TARG, PHYLLIS COLE AND HAL PUTHOFF .... IT IS JUST ABOUT TWENTY MINUTES AFTER ELEVEN, AND HAL SHOULD BE AT HIS TARGET LOCATION BY NOW." (*Mind-Reach*, pp. 104-105)

The latter also includes a set experimental time and then the starting time of the experiment. Price's transcript, however, reads: "One forty ... I expect our visitors to be at their place in about ten minutes ...." (One fifty) "... It's one-fifty-eight. Our travelers should be near to arriving at the place." (*Mind-Reach*, p. 63) Why the repeated use of time?

The strange use of time can also be seen in Cole's transcript where, despite "It is best that the inbound experimenter not push the subject to say a lot, but act as if they have all the time in the world ...." (Appendix B, p. 3) Targ says: "It is just about twenty minutes after eleven and Hal should be at his target location by now .... It is twenty-four minutes after eleven ...." (*Mind-Reach*, p. 105)

Note also the way in which the time is stated: "Twenty minutes after ... twenty minutes after ... twenty-four minutes after ... eleven thirty-three ...." (*Mind-Reach*, p. 106) Targ states time in the Price transcript: "One forty ... one fifty-eight ... two thirty ...." (*Mind-Reach*, p. 68)

Another example can be seen with the abacus/clock target where description of the experimenter's actions precedes the date of the experiment. "Hal and I have brought a present for you. We wandered around ... and bought an object ... of the type that one interacts with .... Hal will use it for its normal purpose. Today is Friday, September 26, 1974 ...." (*Mind-Reach*, p. 39)

Still another example is seen when Richard Bach visits: "Hal should be there in three minutes ... it is eleven o'clock on Tuesday, July 18, 1975 ...." (*Mind-Reach*, xxiii) Although Puthoff and Targ state: "Finally,

one sunny day in April 1975, Richard flew his small plane into San Francisco ... he was ready to visit our lab and see what we were up to .... We decided to use our newfound successful protocol and asked our visitor to be the subject ... the target was a church ...." (*Mind-Reach*, pp. 91-92)

It is also interesting to note that the experiment starting time is not preset although Puthoff and Targ state: "The experimental protocol for precognitive remote viewing experiments with Hella Hammid was identical to that followed in the remote viewing experiments ... each day at ten o'clock, one of the experimenters would leave SRI ...." (*Mind-Reach*, pp. 111-112)

Yet, reply to Calkins' comments concerning their experimental design, Puthoff and Targ state: "Among other things, the precise time of stimulus presentation was controlled ...." (*Proceedings of the IEEE*, October 1976, Letters, p. 1549)

In the Price series, the viewing time was a 30-minute period and after was reduced to a 15-minute period for Hella Hammid: "The first subject was allowed 30 minutes for his description but it was found he fatigued and had little comment after the first 15 minutes. The viewing procedure was therefore reduced to 15 minutes for S_2 - S_6." (Puthoff and Targ, 1976b, p. 335) Perhaps this accounts for the return of the target team at 2:30 after the session had started at 2:00: "It's one fifty-eight. Our travelers should be near to arriving" ... "two thirty. Shall we go downstairs and see how they're doing?" (*Mind-Reach*, pp. 63-68)

Who actually fatigued is not quite clear since it is also stated: "Second, the remote viewing periods were reduced from 30 to 15 minutes since Hammid was observed to tire." (Targ and Puthoff, 1976, p. 35)

Target person behavior. "At the start of an experimental session, the inbound and outbound experimenters and the subject should rendezvous for a relaxed informal chat in the laboratory setting (the outbound experimenter or experimenters must not know the target site at this time) .... The outbound experimenter then leaves the lab, uses a random number generating procedure to obtain a number, obtains the so numbered envelope (preferably kept by another person) and leaves ... opens the envelope to determine the target, and proceeds to that location ... come upon the target location at exactly the starting time so his view of it is fresh at experiment beginning. He then simply pays attention to the environment and does not let his mind wander (especially to another target) .... It appears not to matter how many people comprise the outbound team, provided they don't 1) just pay attention to each other or 2) scatter about. At the end of the agreed-upon target viewing time they return to the lab." (Appendix B, p. 2) In relation to the acquisition of the target, and the randomization procedure, the behavior of the target person obviously has varied from series to series. This has been discussed previously and will not be dealt with again.

Another area that also showed inconsistency, not only in procedure, but in reporting, was the time actually spent at the target. "The first subject was allowed 30 minutes for his description but it was found he fatigued and had little comment after the first 15 minutes. The viewing procedure was therefore reduced to 15 minutes for S_2 - S_6." (Puthoff and Targ, 1976b, p. 335) However, in another source, it is stated: "Second, the remote viewing periods were reduced from 30 to 15 minutes, since in the mock-experiment training series Mrs. Hammid was observed to tire when viewing was extended beyond the shorter period." (Targ and Puthoff, 1976, p. 35;

Mind-Reach, pp. 75-76) And yet earlier, Hammid was run through one after another: "... in the walkie-talkie experiments, wherein we are able to do a number of experiments, one right after the other." (Targ and Puthoff, 1975, p. 177)

Several other questions arise, however, as to what the experimenter actually does when he/she or they arrive at the target. Again, Tart implies there may be more, assuming that Hastings, having shared his procedure with Tart: "Our consultant, Dr. Arthur Hastings ...." (*Mind-Reach*, p. 101) Tart comments: "I then sealed each slide, along with a set of instructions that I made up then and there on appropriate things that could be done to interact with the site ...." (Tart, 1970, p. 170) Price, in the Allied Arts transcript states: "Right now Bart is trying to point something out that is basically the significance of the whole place .... Hal and Bart are talking about something and he's pointing at something and it seems to me that he's pointing over to what I'd call a windmill or something that looks like a windmill ...." (*Mind-Reach*, pp. 65-66) (Apparently remote viewing also includes remote hearing also!) It is obvious that "people paying attention to each other" did not distract Price from his description, so what evidence is there that this personal attention should not occur? What evidence is there that experimenters should not scatter about?

One whole area that remains undisclosed is that of determining what it is that the experimenters actually knew. Are there instructions given as to what elements, say of Rinconada Park, are to be viewed? Or of the marina? Or of the playground? As has been discussed earlier, the earlier descriptions of some targets causes some question as to when they became specific elements, say, within a larger target. Are maps drawn? Are tapes

normally made? Are specific actions required? At best, the lack of planned activity, and its subsequent documentation, of the target persons provides an opportunity for redefinition of the "target" and free "interpretation" by the judge. u

Judging. Prior to the judging procedure: "First, an experimenter not involved in judging must read the transcripts and delete from them any reference to dates or previous targets, so that a judge could not order the transcripts chronologically, or determine that a given transcript can't be the boathouse because the subject mentions in the transcript that what he is looking at reminds him of the boathouse which was the previous day's target." (Appendix B, p. 4) u

As has been noted earlier, this protocol was written *after* their tutorial paper. (Puthoff and Targ, 1976b) This time relationship is verified in this latter publication: "The subjects' response packets, which contained the nine typed unedited transcripts of the narratives along with any associated drawings ...." (Puthoff and Targ, 1976b, p. 335) and "... a panel of five additional judges ... were asked simply to blind match the unedited typed transcripts and associated drawings ...." (Puthoff and Targ, 1976b, p. 338) The latter quotation is in reference to the judging procedure used with Hammid so one assumes that it was used with the remaining subjects. Therefore, during the actual judging procedure, unedited transcripts *are* apparently used. u

Judging procedure. "... the transcripts with their associated drawings are labeled in random order and given to the judge ... while a list of the target cards, also in a (different) numbered random order is given to the judge. His job, then (is) to go to a target location (physically), read

through all the manuscripts, and order them best to worst match .... He then proceeds to the second target site and reorders the same set of transcripts again, best through worst match, and so forth. The judge is to do this exercise in a replacement sense; that is, even though he may have assigned a given transcript as best match to a given target, he may find at another target that it is the best match to that one also. Even though he knows logically that it couldn't go to both, we find that judges in fact have no hesitation in using a transcript twice in first place, simply because they aren't sure as to which one it does in fact belong, and they want to insure the best possibility of not missing a potential match. Based on this we feel it is more appropriate to use statistics based on replacement." (Appendix B, p. 4)

The Price series is judged by this method. In examining the results of the judging, some interesting facts appear: (1) although 45 selections are shown, all judges did not match all targets; (2) when the bridge toll plaza was visited, no matchings are shown for Judge C nor are any shown for the same judge for Rinconada Park; (3) Judge C uses three transcripts on a single target, Baylands, so that if "Cs" are counted, it appears as if he responded 9 times; (4) Judge D never chooses any transcripts other than those of the first five targets; and (5) Judge E uses all transcripts but one. On these bases, one could meaningfully question the appropriateness of the statistical assumptions and conclusions. However, the number of matchings *is* quite impressive. The strength or weakness of this experimental series is dependent on factors other than the strange judging results. This is the only form of judging that is used in describing the Price results in early publications. (Targ and Puthoff, 1974; SRI Progress Reports, March and August 1974; Targ and Puthoff, 1975) Their conclusion is: "By plurality

vote, six of the nine descriptions and locations were correctly matched. Under the null hypothesis (no remote viewing and a random selection of descriptions without replacement), this outcome has the *a priori* probability of $p = 5.6 \times 10^{-4}$, since, among all possible permutations of the integers one through nine, the probability of six or more being in their natural position in the list has that value." (Targ and Puthoff, 1974, p. 606) - No matter how dramatic the above statistic is, it still does not meet their previously stated criterion that an event cannot be considered paranormal unless $p < 10^{-6}$. (SRI Progress Report, August 1974) Why change criteria here? -5

Why is it, in 1976, that Puthoff and Targ state: "As in the original series with Price, the results of the nine-experiment series were submitted for independent judging on a blind basis by an SRI research analyst ...." (Puthoff and Targ, 1976b, pp. 337-338) "And as back up judging procedure, a panel of five additional SRI scientists ... were asked simply to blind match ...." (Puthoff and Targ, 1976b, p. 336) ω

This change in procedure is first seen in a 1975 publication in which Hammid's replication series is first reported. (Targ and Puthoff, 1976) It is supposedly instituted: "To obtain a more conventional and generally accepted evaluation of the accuracy of the remote viewing experiment, the experimental results were subjected to independent judging on a blind basis by a single judge who visited each location in turn. ... the judge was required to blind rank order the nine packets on a scale from 1 to 9 (best to worst match." (SRI Progress Report, August 1974, p. 36) -5

The logic for this change is also based on the belief that one judge was as good as the best of five judges. In their reply to Calkins' comments,

Puthoff and Targ state: "As indicated in Sections A & B, pp. 335-338, two judging procedures were used. In the first, panels of five independent judges analyzed the first and second experiments. From this one could obtain the reliability of rankings by several judges (inter-rater agreement) as measured by the coefficient of concordance *W*. However, in the present study a judgment consisted of the matching of descriptive transcripts and drawings to actual sites, and therefore the accuracy of matching provides an empirical measure of judge reliability. The best judge obtained seven matches out of nine cases in the first experiment, five out of nine in the second, setting at least an empirical standard for quality judging. This procedure amounted to a pretesting of potential judge reliability. A sixth judge was then obtained who independently rank-order judged the same two experiments. Since he also independently obtained the same 7 and 5 direct matches as the best judge, we at least had a measure that indicated that, with regard to the data generated in our first two experiments, the better judges were in accord, indicating a high degree of reliability, inter- and intra-judge. This sixth judge was therefore used for all the subsequent judging in the paper ...." (*Proceedings of the IEEE*, October 1976, pp. 1549-1550)

If they chose their judge on the basis of the above and used only that one judge for the rest of the series, they were certainly maximizing the results by using the "better" judge who provided higher rankings. More will be said later about this particular judge.

However, the single judge's results are not used until their tutorial paper was submitted for publication in July 1974. Perhaps Puthoff and Targ chose to use the second procedure of ranking since Hammid's results also

would not have reached their statistical criterion of $p < 10^{-6}$. By plurality vote of the five judges, Price's was $p = 5.6 \times 10^{-4}$ with 7, 6, 5, 3, and 3 matches whereas Hammid's were poorer: 5, 3, 3, 2, and 2.

Note also, of course, the calculation reported above in the summary of the research, indicating that the "five additional judges" performed significantly poorer than the first selected judge. Is this a valid reason for *a posteriori* changing to a plurality vote?

Although the ranking procedure does not appear until 1975, Puthoff and Targ make it appear as if it were the only method used throughout the series. "Working alone, the analyst visited each target location and in a blind fashion rated Pat's answers on a scale of 1 to 9 (best to worst match)," and "As a back-up procedure, a panel of five additional SRI scientists ... were asked to blind match ...." (*Mind-Reach*, pp. 54-55)

Who does the judging? The five judges are only referred to as being SRI scientists not associated with the experiment. The single judge is also SRI associated, a research analyst, although the judge is only referred to earlier as being "a judge." (SRI Progress Report, August 1974, p. 36) 5

In *Mind-Reach*, Puthoff and Targ relate: "In the process of judging-attempting to match transcripts against targets on the basis of the information in the transcripts-some patterns and regularities in the transcript descriptions became evident. Our consultant, Dr. Arthur Hastings, pointed out to us that each person tended to focus on certain aspects of the remote target complex and to exclude others, so that each had an individual pattern of response, like a signature." (*Mind-Reach*, p. 101) 4

Hastings' paper on "Mental Processing of ESP Imagery: Theoretical Considerations" at The Eighteenth Annual Convention of the Parapsychological

Convention, 1975, dealt "... with responses that appear as mental images to the mind's eye of the percipient, who then draws or describes them." (Hastings, 1976, p. 187) u

Hastings is also thanked in one publication: "We express our sincere thanks also to Earle Jones, Bonnar Cox, and Dr. Arthur Hastings, *SRI* ...." 4, p. 353 although he is later thanked in *Mind-Reach* as a *consultant*: "... the authors have greatly benefited from many discussions with ... SRI *consultant* Dr. Arthur Hastings." (*Mind-Reach*, viii) u

Thus, Hastings is an SRI employee, perhaps an SRI scientist, certainly a consultant, and also a coauthor. In addition, we understand (R. Hyman, personal communication) that he is a professional magician and the sole judge used in the latter SRI local target studies *and* a consultant and judge for another organization in the Southwest U.S. currently conducting remote viewing studies. Should the above be as accurate as we believe it to be, significant changes are needed in future judging procedures and judge selection. u

Once the judge has the target list and transcripts, he proceeds to each target location. With the exception of one publication, there are no details as to what kind of instructions the judge is given. In that one publication, it is stated: "While standing at a specific location, the judge was required to blind rank order the nine packets ...." (SRI Progress Report, August 1974, p. 36) Since this statement is made in reference to the Hammid series, it can be surmised that it was also followed for the rest of the experiments. If this is the case, bias must also be a factor in this element of the judging since the experimenters are aware of the subject's description, and can send a judge to the area in which a correspondence might be seen. In S

the description of Hammid's target, the pedestrian overpass, Puthoff and Targ relate: "She went on to explain that if you stand where they are standing you will see something like this, and drew a series of nested squares. As it turned out, a judge standing where she indicated would have had a view closely resembling what she had drawn." (SRI Progress Report, August 1974, p. 35) Her earlier part of the description, ... a kind of trough up in the air ... (Targ and Puthoff, 1976) certainly could have also described the railroad trestle bridge. The key, therefore, to identification then becomes the "nested squares". Was a judge sent to this location? Note again that this is the first drawing. Why do Puthoff and Targ choose to use only one? If the correlation was so good, why was it only given a ranking of 2? Note also the accurate reporting: "... she saw a kind of trough up in the air ..." which later becomes "... the subject said that she saw a kind of diagonal trough up in the air ...." (Puthoff and Targ, 1977b, p. 4)

Calkins, in his comments, raises an excellent point: "Unfortunately, there are also fundamental problems in the very definition of the DV [dependent variable] ... at the heart of which is confusion over the *nature* of the so-called 'target'. Specifically, the judge for a given S's performance for a given 'target' was successively driven to each geographical location previously visited by the peripatetic E's. Since we do *not* know precisely *what aspects* of the geographical location constituted a 'target' in the original 'experiment' when the demarcation team was present, and since it is even more ambiguous now what the *judge was viewing*, as well as what he was *supposed* to be looking at while he reviewed the S's packets of 9 descriptions, we seem in this procedure, therefore, to actually be dealing with at least three recognizably distinct categories of 'targets': one is

constituted by the perceptions of the demarcation team; a second by the perceptions of the judges; and a third by direct physical aspects of some geographical location." (*Proceedings of the IEEE*, October 1976, p. 1547) U

Although "while standing at a specific location, the judge was required to blind rank order ..." (SRI Progress Report, August 1974, p. 36), the reply to Calkins' comments on their basic experimental design (which has been quoted before) is highly applicable here also: "It would be in our opinion premature and imprudent, for example, during the initial stages of an investigation when much remains unknown about the mechanisms and factors involved, to follow Calkins' suggestion to specify precisely on what stimuli within a target area a subject or a judge is to concentrate." (*Proceedings of the IEEE*, October 1976, p. 1549) U

Another area in which bias can occur is in the judge's desire to have the experiment show positive results. Puthoff and Targ relate concerning the matching procedure: "Even though he knows logically it couldn't go to both, we find that judges in fact have no hesitation in using a transcript twice in first place, simply because they aren't sure as to which one it does in fact belong, and they want to insure the best possibility of not missing a potential match. Based on this we feel it is more appropriate to use statistics based on replacement." (Appendix B, p. 4) If this is true for the matching procedure in which five judges are involved, it would also seem likely that a single judge might behave the same way. U

In addition, another type of subjectiveness can bias the results, that of reading in more correspondence than may actually be there. This kind of subjectiveness can most easily be illustrated with the following example although this experiment was used as a demonstration experiment. Following

their paper, although this target was not presented, a round table discussion ensued in which the Alpine Inn beer garden was brought up.

"Feinburg: What happened is that the people who had been at this place came back, and then they drove Price, myself, and some others back to the place they had been before. When we got there, we looked around and compared some of the things Pat had said ....

Concerning the historical plate, Price said something was there which sounded a little bit like what actually was there. But then, one of the people who went there afterwards, said, Oh, look, here's something that looks a little bit like what he said there was. After that, everybody crowded around, saying yes, yes, that's the historical marker." (Puthoff and Targ, 1975b, p. 178)

When a forced ranking method is used, this subjectiveness necessarily must enter in since the judge (1) knows that a transcript must match each target; and (2) can increase the actual rank given by "reading" in "more correspondence than is actually there." This bias is evident when Puthoff and Targ state: "Several descriptions yielded significantly correct data pertaining to and descriptive of the target location." (Targ and Puthoff, 1974, p. 605)

If only "several" descriptions yielded correct data, why were so many ranked so highly? They also state: "The transcripts varied from coherent and accurate descriptions to mixtures of correspondences and noncorrespondences." (Puthoff and Targ, 1976b, p. 346) How does the judge go about this ranking procedure?

There appears to be some question as to whether all the transcripts in a given series are judged at the same time: "Following a series of several

experiments, all of the subjects' unlabeled response packets, ... were presented to the judge in random order." (*Mind-Reach*, p. 36) Could it be that all the transcripts are not rated at the same time? The use of the word "several" could suggest just that. U

Regardless of the number of transcripts involved, although it would make the task much simplier and result in a greater probability of making correct matches, the judge found the following method the best.

"According to the judge, the most successful procedure was a careful element-by-element comparison that tested each transcript against every target and used the transcript descriptions and drawings as arguments for and against assigning the transcript to a particular target." (Puthoff and Targ, 1976b, p. 346) Some transcripts were obviously matched easily, such as White Plaza and Hoover Tower which were named correctly. "... seems like it would be Hoover Tower. We sat there finding it difficult to believe that he had actually identified the target by name." (*Mind-Reach*, p. 50) U "One of the direct hits, which occurred with Phyllis Cole in her first experiment ... she recognized the location as White Plaza ...." (*Mind-Reach*, p. 86) Swann, in his drawing of Palo Alto City Hall, lists "the miniature golf course from yesterday?" (Puthoff and Targ, 1976b, p. 340) and Price mentions the "marina" used prior to the target he is describing: the Allied Arts and Crafts Plaza: "... not half the distance they were to the marina ...." He also mentions distance: "... feels like a mile to a mile and a half ...." (*Mind-Reach*, pp. 63-68) Since these are the only available unedited transcripts and only eight drawings are shown from a total of 43 experiments, it is difficult to go into greater detail about other uses of cueing within these sources. U

In the Elgin/Swann series, once Palo Alto City Hall is matched, the only remaining "... simple, heavy, solid building with a unique function ..." is the BART station. Therefore, a judge can, by the process of elimination reduce the number of transcripts from the series he is judging. Since he has a list prior to the actual judging, he doesn't necessarily rank each transcript without prior knowledge as to what the other target locations are. He can, therefore, actually match each transcript to the target rather than rank it.

Other possible cueing may take place. Names of experimenters are included in some of the drawings and if the names of the experimenters are included in the pre-viewing description of the experiment as they have been for Price's and Cole's unedited transcripts: "... the travelers to the remote location are ..." (*Mind-Reach*, p. 63) and "... and this is a remote viewing experiment with ..." (*Mind-Reach*, p. 104), these references would also provide cues. In the drawing by Elgin, he has labelled his figures "H" and "P" (p. 83) and Pease has noted in his drawing "Hal and Hella sitting." (*Mind-Reach*, p. 87)

The questions that the experimenters use during an experiment may provide even more cues. The use of such questions as: "What kind of place is the arbor in ... tell me about town and country ... town and country means to me a covered walkway ... what would you say is the interest to this place? What's special about this place?" (*Mind-Reach*, pp. 63-67) Provide a few examples from the Allied Arts transcript where questions might be helpful to the judge.

Most importantly, a subject is not encouraged to name the target, although when the names are correct, they are lauded: "We sat there

finding it difficult to believe that he had actually identified the target by name. Although this feat was no more spectacular than his original experiment, this one had to be confronted at close range." (*Mind-Reach*, p. 50) Puthoff and Targ state: "We often observe essentially correct descriptions of basic elements and patterns coupled with complete or erroneous analysis of function." (Targ, *et al.*, 1977, pp. 519-520) If, however, judging were to be based on the analysis of function, how many transcripts would be correct? "An 'august' and 'solemn' building," was called a church and "a pedestrain overpass above a freeway" was described as a conduit (S_4). A rapid transit station, elevated above the countryside, was associated with an observatory (S_2)." (Puthoff and Targ, 1976b, p. 345) Obviously, a judge would have to call them incorrect. The use of a less demanding criterion, one of "... individual elements and items that make up the target." (Puthoff and Targ, 1976b, p. 345) allows a subject to learn a given set of responses that can be applied to any target within that specific set of targets, such as fountains and bridges, so that a judge can judge them on a less demanding and less precise basis.

Puthoff and Targ conclude, among other points that "... most of the correct information that subjects relate is of nonanalytic nature pertaining to shape, form, color, and material rather than to function or name." (Puthoff and Targ, 1976b, p. 350) Subjects are, in fact, encouraged to describe a target in these terms: "they need to 'get it' that a rounded piece of blue metal is just that, and they shouldn't try to figure out whether it is a car fender before they say anything." (Appendix B, p. 2)

In describing mock experiments, Targ related as an example of a mock experiment: "She'll say, I see an elliptical brick structure surrounded

with green, with irridescent blue flowers inside. Harold will say, Say again what the color is, and she'll say, Peacock blue. And he'll say, the brick planter is there with the surround of green, but it's magenta. She'll say, well, I must be looking someplace else, because the flowers I see are blue. Then he'll go on to some other place." (Targ and Puthoff, 1975, p. 172) The emphasis is placed on these details during the mock experiments; in this particular case, the emphasis is on color.

It is interesting to note that Puthoff, Targ, and May have carried out training experiments that not only involved shape, but also color. "We have in our laboratory carried out a series of communication experiments involving the transmission, from one laboratory to another, of simple shapes, (e.g., T, O, Δ), which also were of different colors for each shape. With the hypothesis that a similar gradient is followed in the development of paranormal perception ..., (that of learning to discriminate first black and white, followed by red, green, yellow, blue, brown, and other colors), ... subjects were asked to differentiate among simple remote color card targets first on the dichotomy dull/bright, then with regard to shape, and only finally with regard to color .... Numerous data were gathered with two subjects who were experienced remote viewers. Analysis of the data, which shows learning in both cases, provides initial support for the hypothesis that progress in paranormal perception can be made on the basis of training drills designed from what is known about ordinary perception." (Puthoff, *et al.*, 1978, pp. 30-31) These data, however, have not been published.

In relation to the above study and the use of mock experiments in which training occurs, it is interesting to note the following: "In comparing

Hella's results with Pat's, we observe a difference in style which evidently affected the pattern of results. Pat's descriptions were in general more detailed than Hella's, leading to more first place matches ... he also got two clear misses where the striving for detail resulted in erroneous analytical interpretations. Hella, on the other hand, preferring to be more cautious, got fewer first place matches but did not find any of her descriptions falling into less than second place." (*Mind-Reach*, p. 79) "The transcripts of subject S_4, more than those of other subjects, had descriptions of the feel of the location, and experiential or sensory gestalts-for example, light/dark elements in the scene and indoor/outdoor and enclosed/open distinctions." (Puthoff and Targ, 1976b, p. 345)

Targ, Puthoff, and May (1978) conclude: "Of the six studies, involving remote viewing of natural targets or laboratory apparatus, five reached statistical significance. The overall results, evaluated conservatively on the basis of a judging procedure that ignored transcript quality beyond that necessary to rank order the data packets (vastly underestimating the statistical significance of individual descriptions), clearly indicates the presence of an information channel of useful bit rate."

If, as they state, the procedure ignored transcript quality "... (vastly under-estimating the statistical significance) ...", it also was beneficial: "Pat's descriptions were in general more detailed ... leading to more first place matches, that is, direct hits in the rank order judging, but he also got two clear misses ...", (*Mind-Reach*, p. 79), i.e., rankings of 3 and 6. "... the analyst visited each target location and in a blind fashion rated Pat's answers on a scale of 1 to 9 (best to worst match)." (*Mind-Reach*, p. 54)

"For the purpose of screening a result is to be considered paranormal if the *a priori* probability for the occurrence of the result by chance, under the null hypothesis, is $p < 10^{-6}$." (SRI Progress Report, August 1974, p. 16) -S

If this is the criterion for "screening", is there some reason it should be changed for the experiments themselves? Of the five, only S_4's results came close to the statistical criterion: $p \doteq 1.8 \times 10^{-6}$. No other statistical criteria are ever mentioned, with the exception of the screening criterion in one publication. Rather, general statements are made: "therefore, in carrying out our proposed program, we would have to concentrate on what we considered to be our primary responsibility: to resolve under unambiguous conditions the basic issue of whether or not this class of paranormal perception phenomenon exists." (*Mind-Reach*, p. 35) U

Finally, Puthoff and Targ state: "The descriptions supplied by the subjects in the experiments involving remote viewing of natural targets or laboratory apparatus, although containing inaccuracies, were sufficiently accurate to permit the judges to differentiate among the various targets to the degree indicated." (Puthoff and Targ, 1976b, p. 344) Is this what is needed? It seems a much more proscribed judging procedure and response criterion are required. As will be seen in Section III, when these requirements are met, results tend to be negative. U

Technology Targets. The results of the technology series of targets were first presented in 1975. At that time, it was stated: "Having completed two sets of remote viewing experiments under controlled conditions, we set out to try to determine some of the properties of the information channel. To accomplish this we turned to the use of indoor technological

targets." (Targ and Puthoff, 1976, p. 36) The subjects for this series were S_2, S_3, S_4, V_2, V_3. If this series was actually carried out following the series with Price and Hammid, and V_2 and V_3 participate, the demonstration-of-ability experiments for other subjects with local targets must have come after November 8, 1974. V_1's third target is dated and signed by Puthoff. (*Mind-Reach*, p. 9) One assumes that V_2 was run following V_1. However, Cole's transcript of White Plaza is dated October seventh (*Mind-Reach*, p. 104) so some confusion appears.

Twelve experimental sessions are reported, although in the publication, it appears that the experimenters had planned on a larger series since they state: "Twelve experimental sessions have been completed to date, involving a total of five subjects." (Targ and Puthoff, 1976, p. 36) Of a total of twelve transcripts, Swann produced four and Hammid five.

The target pool is reported as being "... anything from office equipment to machinery or an experimental set-up." (Targ and Puthoff, 1976, p. 36) The list included a: "... computer-driven flight simulator (Link trainer) ..." (p. 36) which is changed later to: "... and, in one case, an entire machine shop." (*Mind-Reach*, p. 94) The remaining targets are the same in all publications. The subject is told: "... one of the experimenters would be sent to a laboratory within the SRI complex and that he would interact with the equipment or apparatus." (Targ and Puthoff, 1976, p. 36)

With the discussion of this group of targets, eight drawings are included. Out of a total of twelve experiments, although only eight drawings are used for the series of forty-three experiments in which natural and man-made targets are used. The drawings are grouped together according to the target used and Puthoff and Targ have provided a photograph for each drawing.

The drawings for the Xerox machine illustrate a table with a figure in front of it with the notation "rolling along table". (Puthoff and Targ, 1976b, p. 343) Above this, the entire Xerox machine is pictured. The next drawing looks like a squat fire plug sitting on a table with a wire attached, and has the notation: "it turns? dark brown or maroon". (Puthoff and Targ, 1976b, p. 343) and must be either the second drawing or second target, since it is noted as 2. For this, Puthoff and Targ show a close up of the counter with its two knobs. The third drawing shows a square with semi-circle on the bottom of the square with what appears to be a light bulb-shaped object in front and to the side a rectangular shaped item. These drawings interestingly enough are labelled 1, 2, and 4. The subject related: "... 'I have the feeling that there is something silhouetted against the window ....' 'There is this predominant light source which might have been a window, and a working surface which might have been the sill, or a working surface or desk.'" Puthoff and Targ relate these two comments, however, in reverse order: "Earlier the subject said ....' Pictured above these drawings of which one is missing, is the caption: To add interest to target location experimenter with his head being xeroxed.'" In their "Potential Criticism and Responses" section, Puthoff refers to the use of photography as a possible criticism. His response is that: "All blind judging, matching and statistical evaluation of the results (which is where the scientific issues are decided) are completed *before* photographs are taken; judges do not have access to photographs during their analysis, and therefore judges cannot be cued into correspondences observed post hoc." (Targ, *et al.*, 1977, p. 528) 4

The judging of the targets is reported in different publications in various ways. The first presentation states: "Blind matching without replacement of subject response packets ... and targets resulted in four matches out of the 12, a result significant at $p = .015$." (Targ and Puthoff, 1976, p. 37) In this reporting, therefore, each individual transcript was matched separately. In another publication, the judging procedure was as follows: "... in the first judging procedure a judge was asked simply to blind match ... to the target. Multiple-subject responses ..." therefore, only seven this time, "... were stapled together, and thus seven ... response packets were to be matched .... While standing at each target location, the judge was required to rank order the seven subject-drawing response packets ...." (Puthoff and Targ, 1976b, p. 343)

Not only has the judging procedure changed, but also the number of packets used. Instead of judging on a one-to-one basis, the subjects response packets for any given target are stapled together. To confuse the issue further, in the earlier study, the judge was given: "... subject response packets (tape transcripts plus drawings) ... (Targ and Puthoff, 1976, p. 37) whereas later, only drawings are used: "... in the first judging procedure a judge was asked simply to blind match only the drawings (i.e., without tape transcripts) ...." (Puthoff and Targ, 1976b, p. 343)

"In a second more detailed effort at evaluation, a visiting scientist selected at random one of the 12 data packages (a drill press equipment), sight unseen and submitted it for independent analysis to an engineer with a request for an estimate as to what was being described. The analyst, blind as to the target and given only the subject's taped narrative and drawing (Figure 13) was able, from the subject's description alone, to

correctly classify the target as a man-sized vertical boring machine." (Puthoff and Targ, 1976b, pp. 343-344)

The remaining publication that gives any detail concerning this series of targets reports: "Given that in general the drawings constitute the most accurate portion of a subject's description, in the first judging procedure a judge was asked simply to blind match only the drawings (i.e., without tape transcripts) to the targets. Multiple subject responses on a given target were stapled together, and thus seven subject-drawing response packets were to be matched .... The response packets (judged on a scale of 1 to 7 ...." (*Mind-Reach*, pp. 96-97) One assumes that the authors meant to use "ranked" rather than "matched" in describing this well-used procedure. "The result was significant at odds of 28:1." (*Mind-Reach*, p. 97) The second judging procedure is also described in this reference.

In summary of the technology series, we can conclude several things. First, the inconsistency of the target set (simulator vs. machine shop) is a source of inaccurate reporting at best. Second, the loosely changing judging procedure is a source of concern. Third, the unequal trials spread over the four subjects is clearly a case of less-than-ideal behavioral research practice. For these reasons, it is doubtful that the series provided any indication of the "properties" of the remote viewing information channel, nor do the authors refer back to that stated purpose in any of their discussion of the results. This series of experiments therefore seems to add little to their existing data base.

Unselected Visitors. "After more than a year of following the experimental protocol ... and observing that even inexperienced subjects got better than expected results, we began a series of experiments to

explore further whether individuals other than so-called 'psychics' could demonstrate the remote viewing ability. To test this idea, we have a continuing program to carry out additional experiments using local targets in the Bay area with subjects who we have no particular reason to believe they have paranormal perception." (*Mind Reach*, pp. 87-88)

In *Mind-Reach*, following a description of the experiments with V_1, Puthoff and Targ state: "We have carried out more than one hundred experiments of this type, most of them successful, as determined by independent judging. The majority of our subjects have not been 'psychics'; at least they didn't think of themselves that way when they started." (*Mind-Reach*, pp. 9-10)

In another publication the figures are rather different: "In over 70 laboratory experiments that now include work with more than a dozen subjects, ..." (Puthoff and Targ, 1977b, p. 1) although later, within the same publication they also state: "... we initiated an extensive series of experiments using unselected subjects and local targets in the Bay area ...." (p. 5)

If this series is as successful as claimed, not to mention being "extensive", where are the data from these experiments. It would seem logical that Puthoff and Targ would be eager to publish these results, especially since they typically appear to publish their results shortly after conducting the experiments. (See Table 1.)

As of the publication of *Mind Reach* in 1977, the only two unselected subjects reported are V_1 and V_2 who are included in the remote viewing of local target statistics. V_3 is included as a subject for the technology series. The only remaining subject is Richard Bach, from whom they desire funding. "Desperate times call for desperate measures. I had read *Jonathan Livingston Seagull*, and also the interview with its author, Richard Bach ...

propelled by Bach's idea that 'the seagull that flies the highest sees the furthest,' we called Richard Bach himself to see if he could pump new blood into our project." (*Mind-Reach*, p. 90)

The dates that Bach actually visits are reported differently: "... one sunny day in April 1975, Richard flew his small plane into San Francisco airport and called to say that he was ready to visit our lab and see what we were up to." (*Mind-Reach*, p. 91) Bach, in the Forward of *Mind-Reach*, states in describing what appears to be his first experiment: "Somehow I hadn't expected it to be human. I had expected ... and then the beginning of the experiment: It is eleven o'clock on Tuesday, July 18, 1975. This is a remote viewing experiment with Richard Bach ...." (p. xxiii)

No other unselected subjects are mentioned until April 1977, at which time they describe three experiments with two visitors. "The following results obtained with the last two visitors who agreed to act as subjects provide specific examples." (Puthoff and Targ, 1977b, p. 6) One of the drawings is dated 5 May 76.

Also reported in July 1977 are three other experiments. These, however, use a variety of subjects, identified by initials: G_1 (an SRI research engineer), H_1, I_1, and R_1 in addition to D_1, whose experiments are the same as those that were reported in April 1977. G_1 can be eliminated since he was used in the long-distance remote-viewing experiments between New York City and California and New Orleans-California and I_1 is an experienced subject. Therefore, of the total group, there have been four unselected subjects used in five experiments from 1976 on.

The targets that are used are the following: Methodist Church, Stanford University Inner Quadrangle featuring Memorial Church, Baylands Nature

Preserve, a swimming pool complex, Hyatt House Hotel, and White Plaza. Jahn (1978) mentions two targets that were used while he and his co-worker Carol Curry were at SRI: the local Holiday Inn swimming pool, and the Stanford Chapel. Another recent target used with G_1 is the Vallombrosa Chapel, and with experienced I_1, the Golden Pavillion Restaurant. The targets appear to fall into two general categories: chapels or churches, and water-related targets.

Subject D_1 has two experiments and it is interesting to note that this subject includes in his transcript of Baylands Nature Preserve a description of a building he had visited the day before. (The occurrence of prior images within a transcript were discussed previously.) The description in another publication fails to state that the building was seen the day before: "However, he also described seeing a building that is not at the target site. This sort of super position of erroneous imagery on otherwise accurate descriptions is a common occurrence ...." (Puthoff and Targ, 1977b, p. 6)

Subject D_1's second target is the Inner Quadrangle, Stanford University. The two associated drawings depict a courtyard. Although both drawings are different, one wonders why the second was drawn since they essentially do not differ all that much. Both contain the same elements: a tall structure to the left and a porch running from this large structure to form an "L". At the back, a street is shown and a wall. Both also indicate glass windows and green plants as being in the large structure, poles in front of it, and a lot or patio in the center of the square formed by building, porch, and street. In one, there is a partial completion of the square labeled "stores"; in the other, a short run of steps. The word "emporium" also appears on one though it is pointing to some large buildings outside the

square. The pictures above the drawings show an aerial view of the quadrangle and a close-up of Memorial Church. In another publication, the target is called the dormitory quadrangle and the above reference is to Memorial Church. The drawings first of all do not indicate a quadrangle, for both indicate a street on one side. In addition, the "store" image is quite obvious if one reads the writing and if the target were Memorial Church, its pointed roof is not apparent in the drawings. Yet, Puthoff and Targ state: "Almost every element of his drawings correspond to the actual arrangement at the location of the remote experimenters. These responses are among the most accurate and detailed that we have ever seen." (1977b, p. 6) Once again, unless a reader examines the elements carefully, they can be led into seeing correspondences that do not appear to be there.

The other visitor's target was White Plaza, "... the second time in four years that this particular site came up for experimental use." (*Mind-Reach*, p. 7) If this is the case, then Cole and Elgin had to have had the same target at the same time. Could other subjects have been run simultaneously also? As will be seen in the following section, two subjects are used in the long-distance series.

As will be seen in experiments dealing with long-distance remote viewing, emphasis is placed on one subject's transcripts and not on the second's. In the case of White Plaza, Cole's transcript was given a rank of 1, and although judged with Pease's as a single transcript, it basically eliminated a fourth target for Pease as no ranking is used for his. Obviously, the better transcript was used for judging by permitting it to overshadow the poorer one. (We muse what results could be obtained if *all* targets were simultaneously viewed by several subjects, only one of whom somehow produced

an "excellent" transcript, and the judges received all transcripts of each target stapled together.)

Two subjects are also run simultaneously in some of the remaining experiments with unselected subjects. I_1 (experienced) and R_1 are run together for the Hyatt House, and H_1 and I_1 for the swimming pool complex, Mt. View, previously used with V_2. In other experiments involving alphabet letters and letter-guessing, H_1, I_1, and S_1 are used simultaneously. H_1 participates in both. S_1 is used in the long-distance experiments.

The protocol for all these experiments is the same used for the local remote-viewing experiments. It has been seen in the previous section that adherence to protocol has been less than consistent despite "... maintaining scientific rigor ...." (Puthoff and Targ, 1977b, p. 4) This is also seen in the following section.

Critical Evaluation: Long Distance Targets with Target Person

The first experiment in the long-distance remote viewing series with the use of a target person is the Costa Rica series. The procedure is not stated other than: "The experiment called for Dr. Puthoff to keep a detailed record of his location and activities, including photographs, each day at 1330 PDT ..." while he ... spent a week traveling through Costa Rica on a combination business/pleasure trip." (Targ and Puthoff, 1976, p. 5) The subjects did not know of his itinerary.

Two presentations of this material were made in the general time frame of August 1974. One of the publications states: "Subjects 1 and 4 participated in a long-distance experiment." (Targ and Puthoff, 1976, p. 5) In the other, only Hammid, S_4 is reported: "... one subject (H.H.) participated

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in a long-distance experiment. In this experiment one of the experimenters (Dr. Puthoff) spent a week traveling through Central America on a combination business/pleasure trip." (Targ and Puthoff, 1975, p. 158) Prior to actually discussing the results of three local remote-viewing experiments with Elgin and Hammid, the targets are listed. Included in this list is "... and (as a special long-distance task) a vacation resort in Costa Rica." (Targ and Puthoff, 1975, p. 156) - S

Both publications agree on the number of responses that were made by Hammid although apparently on one day no experiments were run. There are six responses listed for Price: "Six daily responses were obtained from Subject 1, five from subject 4." (Targ and Puthoff, 1976, p. 5) (A

"... on one occasion when the test subject was unavailable, an experimenter volunteered a drawing of an image he obtained at the beginning of one of the daily experiments. (The target for that day was an airport, an unexpected target associated with a side excursion at midpoint of the week's activity.)" (Targ and Puthoff, 1976, p. 6) This experimenter is later referred to in other publications as an SRI researcher and subject. "Three subjects participated in a long-distance experiment ..." (Puthoff and Targ, 1976b, p. 330) and "... one response from an SRI researcher, ..." (*Mind-Reach*, p. 11) In one of the first publications, however, it becomes clear as to who this subject is: "... one of the authors (R.T.) volunteered a drawing .... The target for that day was an airport ...." (Targ and Puthoff, 1975, p. 160) S

Puthoff's week, however, has lengthened into "... (Dr. Puthoff) spent ten days ...." (Puthoff and Targ, 1976b, p. 330)

The drawing of the airport is seen in four references. The comparison

between drawing and target is good: "The match was good ...." (Targ and Puthoff, 1975, p. 160; SRI Progress Report, August 1974, p. 6) In another publication, it is reported: "The sole discrepancy was that the subject's drawing showed a Quonset-hut type of building in place of the rectangular structure ...." (*Mind-Reach*, p. 13)

Later, it is stated: "... we present an illustrative example generated in an early pilot experiment. As will be clear from our later discussion, this is not a 'best-ever' example, but rather a typical sample of the level of proficiency that can be reached and that we have come to expect in our research." (Puthoff and Targ, 1976b, p. 330)

In looking at the various publications in which this drawing is presented, two interesting aspects appear. The labels describing the drawing read as follows: "sketch produced by subject from San Andres, Columbia, airport used as a remote viewing target." (Targ and Puthoff, 1975, p. 162) Note: This is also stated in similar fashion again below the label in lower-case format with the addition of "Figure 6". The same label reappears in (SRI Progress Report, August 1974, p. 8) However, the label is changed in the other publications to: "Figure 1. Airport in San Andres, Columbia, used as a remote-viewing target, along with sketch produced by subject in California" (Puthoff and Targ, 1976b, 330) and "sketch produced by subject with San Andres, Columbia, airport used as remote viewing target." (*Mind-Reach*, p. 12)

Another interesting part of this drawing is the date: "Friday, 4/12/73". However, April 12, 1973 was a Thursday, and experimentation had not even begun as of yet. (See Table 1.)

Although we are not handwriting experts, the handwriting on this drawing appears similar to some of the handwriting on Swann's first drawing of

Kerguelen Island, specifically that which was noted earlier as appearing different from the other writing.

Although Hammid was also asked to supply drawings: "... the subject was asked to supply a drawing and written description", none appear for this subject and only descriptions are referred to thereafter: "Twelve daily descriptions were collected ...." (Puthoff and Targ, 1976b, p. 330) However, "the third subject who submitted the single response supplied a drawing for a day in the middle of the series." (Puthoff and Targ, 1976b, p. 330)

The use of pictures with the airport drawing is also unusual. In three of the publications, there are close-up shots of the terminal and airstrip. In *Mind-Reach*, however, they have used an aerial view taken either before or after the experiment was conducted: "... Hal ... at the time of the experiment had just disembarked from a plane ...." (pp. 12-13)

Where was the drawing made? Was it drawn by Russell Targ? When was it made? How does it happen that the vantage point of the subject's sketch corresponds so well to the (previously taken?) photograph of the airport from an airplane window either during approach or takeoff from a mile or so off the end of the runway? If one were merely going to document one's presence, at the airport at a given time, and to describe the nature of the airport, wouldn't a picture of the terminal from ground level be more likely? The perspective correspondence appears too close to be coincidental.

Hammid's responses are reported: "Two were in excellent agreement, two had elements in common but were not clear correspondences, and one was clearly a miss." (Targ and Puthoff, 1975, p. 158) In another publication it is reported after the airport drawing is discussed: "The remaining submissions in this experiment provided further examples of excellent

correspondences between target and response. (A target period of poolside relaxation was identified; a drive through a tropical forest at the base of a truncated volcano was described as a drive through a jungle below a large bare table mountain; a hotel room target description including rug color was correct; and so on." (Puthoff and Targ, 1976b, p. 331) There is no mention of any of Price's descriptions. The total publication of Hammid's "excellent" responses consists of "... larger bare table mountain, jungle below, dark cool moist atmosphere ... and ... picture of Dr. Puthoff sitting in a beach chair by a pool ...." (Targ and Puthoff, 1975, p. 158) These are the only quoted descriptions or general descriptions provided from a total of five transcripts, or from 75 minutes of Hammid's viewing time. That is, we are exposed to only a small sample of her responses, especially considering their reputed excellent nature.

The second set of experiments in the long-distance remote viewing series with the use of a target person was presented at two separate IEEE conferences. The first, "Direct Perception of Remote Geographical Locations," was presented at Electro/77, April 1977. The second, "State of the Art in Remote Viewing Studies at SRI," was presented in August 1977.

Although the papers deal in detail with the long-distance targets, they also give a description of the previous experiments in the remote viewing of local targets. The presentation is somewhat different, however, in these two papers, in that a new terminology appears for Electro/77. Though both papers state that the terminology is used as "... a neutral descriptive term free from prior associations and bias as to mechanisms," (Puthoff and Targ, 1977b, p. 1; Targ, Puthoff, and May, 1978, p. 519), "remote viewing" is now called "remote sensing".

In the introduction of the Electro/77 paper they state: "In over 70 laboratory experiments that now include work with more than a dozen subjects" and "here, throughout research spanning a five-year period, we have worked with new and untrained subjects so to avoid reliance on the availability of a very limited number of special subjects. Remote perceptual abilities have been developed in several individuals ...." (Puthoff and Targ, 1977b, p. 1) The paper then gives a description of the general protocol used with local targets, followed by a brief resume of the Price and Hammid series. u

Other than the tables showing targets, distances, and associated rankings for both Price and Hammid, there is no mention of the rest of the remote viewing series and no data base is ever given. Experiments with unselected subjects are then covered: "... we initiated an extensive series of experiments using unselected subjects and local targets." u

In the second paper, "remote sensing" (Puthoff and Targ, 1977b, p. 1) is again called "remote viewing." (Targ, Puthoff, and May, 1977, p. 519) Targets, however, are now at < 20 km and they specifically refer to a data base: "... our previously established data base of over 50 local (< 20 km) experiments ...." (Targ, Puthoff, and May, 1977, p. 519) As was noted earlier, the farthest target in the series was 16.1 km away. The experimental protocol is discussed, followed by a description of the Price series, the Hammid series, and a summary table of all the results of remote viewing of local targets. This section is followed by the long-distance targets. u

The long-distance experiments were apparently carried out whenever one of the experimenters went on a trip. Those between Menlo Park and New York City are dated July 1976, and the two conducted between New Orleans and California in October 1976. The remaining transcript is undated.

In the first two experiments, those held between Menlo Park and New York City, with the subject in California, "... the DARPA computer teleconferencing net was used for response recording, time recording, and post-experiment feedback....", as noted previously.

Puthoff and Targ include the computer file printout in their publication and state: "These experiments provide an elegant demonstration of the utility of the teleconferencing process as a secure data recording system to provide real-time monitoring of long-distance remote-viewing experiments." (Targ, Puthoff, and May, 1977, p. 523) An examination of the transcript from the first experiment in which the target was Grant's Tomb reveals several interesting aspects. At the top is listed: message number, date, time, and "FROM: TARG" followed by "SUBJECT: S_7's REPORT" and then "TO: TARG". The transcript then begins with "RUSSEL-". At the end of the transcript the following: "ARUSSELL IS THAT YOU? HI, THAT WAS 57, AND WE WERE IN THE 'MSG' STILL, I THINK THAT IT MAY ABORT!" Why "TO TARG" ... "FROM TARG"? Why the need to identify the subject? "The subject (supervised) and the experimenter on the east coast agreed ... to begin the experiment ...." (Targ, Puthoff, and May, 1977, p. 5)

The only time the two experimenters are linked is following the target person's return to the hotel where he "... awaited the appearance of the SRI experimenters and subject who could then and only then link the New York and Menlo Park terminal" at which time "... both files were printed out on both terminals ...." If this is the case, why then does the experimenter in California say: "ARUSSELL IS THAT YOU?" The message is the first so apparently the talk communications are not to be on the file. Did the experimenter forget?

The experiment also typed: "WE WERE IN THE MSG STILL, I THINK THAT IT MAY ABORT." Note the use of the word "were". What is going to abort? The experiment? Why might it abort?

The description in the transcript seems consistent until the following: "THEN DAVID SNAPPED HIS FINGER - I SAW A BASKETBALL VERY CLEAR TACTILE SENSATION FROM A SOMEWHAT TEXTURED GLOBE - ALSO, ON ANOTHER - THE COLOR RED NOT SHARPLY DEFINED - LIQUID OR FLOWING MATERIAL OR NICKY RACING AROUND IN A RED SHOIRT ANOTHER SNAP AND D ASKED FOR THE NAME OF THE PLAVCE - I WAS THINKING 'BAR' BUT I THREW THAT OUT AS OLD AND SAW THE LETTERS 'CH' WHICH I COMPLETED AS 'CHILE' OR 'CHILI' -- ALSO ANOTHER SNAP AND THE NAME OF THE THIRD PERSON - JOE JOHN OR GERRY - IS IT GARY? ...."

Why the snaps? Can the subject hear or see the target person snapping his fingers or is the experimenter with the subject doing so and for what purpose? The subject appears to respond in either case with a fresh image.

Puthoff and Targ state in *Mind-Reach*: "... motion is in general not perceived; in fact, moving objects often are unseen even when nearby static objects are correctly identified." (*Mind-Reach*, p. 102) They also state this in another publication: "Curiously, objects in motion were rarely mentioned." (Puthoff and Targ, 1976b, p. 346)

Two other facets of the transcript are interesting. The transcript begins with "RUSSEL- I THOUGHT OF A HIGH PLACE WITH A VIEW - DETAILS INCLUDED 3 MIN BEFORE V [a line is skipped] IEWING." What details are included three minutes before viewing? In what are they included?

In the middle of the transcript the subject reports: "ALSO THE SURFACE WITH SOMETHING VERTICAL ABOVE - SOMETHING REFLECTING METAL PIPEX OF AN ORGAN (THE ONE I DIDN'T VIEW LAST TIME) ...." When did this "last

time" happen? This is the first experiment in the series. u

Targ, Puthoff and May state: "As an example of the style of narrative generated by a subject during computer teleconferencing experiment, we include the entire unedited computer-logged text of S_7's response to the Grant's Tomb target in Figure 3." (Targ, Puthoff, and May, 1977, p. 521) u However, there are two blank lines in the transcript and although the message appears coherent, the number of characters the computer indicates to be in the file is 1678. A count reveals only 1660 including spacing and carriage returns. Has something been deleted? Has the computer made a counting error? u

The following appears in the Electro/77 proceedings: "I thought of a high place with a view. I saw a tree on your left. A brick plaza seemed to be in front of a building you were entering. I could not clearly identify the activity. A restaurant? A museum? A bookstore? You had coins in the palm of your hand, maybe giving some to Nicky (son of outbound experimenter). The coins were in fact used to purchase the postcard from which Figure 5 was made, and they were given to the experimenter's son who made the purchase. Both subjects then went on for an additional paragraph to describe details of the activities they imagined to be going on inside the building they saw, details that were partly correct, partly incorrect." (Puthoff and Targ, 1977b, p. 8) u.

Within the above direct quote of the subject's transcript, the following was deleted: "RUSSEL ... DETAILS INCLUDED THREE MINUTES BEFORE VIEWING ... I SAW A TREE ON YOUR LEFT IN A BRICK PLAZA - IT SEEMED TO BE IN FRONT OF H WRONG BUTTON - BUILDING YOU WERE ENTERING" has become "A brick plaza seemed to be in front of a building you were entering." The entire section concerning an elevator is deleted and the following is then picked up:

"I COULD NOT CLEARLY IDENTIFY THE ACTIVITY. A RESTAURANT? A MUSEUM? A BOOKSTORE?" "AT ONE TIME I HAD THE FEELING YOU WERE LOOKING AT COINS IN THE PALM OF YOUR HAND ..." becomes "YOU HAD COINS IN THE PALM OF YOUR HAND ...." The ... details of the activities they imagined to be going on inside the building ..." (Puthoff and Targ, 1977b, p. 8) must be in reference to the snapping of the fingers and the images described after each snap as well as the subject's reference to the "... METAL PIPEX OF AN ORGAN (THE ONE I DIDN'T VIEW LAST TIME) ...." ↳

"Two subjects, both in California, participated simultaneously in this experiment with the first of two New York City targets .... Both subjects independently provided computer-stored records ...." (Puthoff and Targ, 1977b, p. 8) Although Puthoff and Targ relate some details of the first subject's transcript, little is really said. This subject is referred to as: "The first subject, an SRI systems analyst ...." "The second subject a medical student ..." provided the transcript that has been described above. However, in the later publication, this subject has become "S_7" and the first subject is "S_8": "Subject S_8, an SRI system's analyst ..." and "Subject S_7, closeted in a separate SRI location, began with: I thought of a high place with a view ...." (Targ, *et al.*, 1977, p. 521) ↳

In beginning the description of the second target, Washington Square, this subject, S_7, is referred to as a female. "One subject participated. She produced an exceptionally accurate transcript .... She began her printout with the following: 'The first image I got at about the first minute was of a cement depression ....'" (Puthoff and Targ, 1977b, p. 8) Her transcript is included: "... we include the entire unedited computer-logged text of the Washington Square experiment below (Figure 7)." (Puthoff and Targ, 1977b,

p. 9) In this transcript, the "SUBJECT: SUSANS REPORT ..." is used. However, in the other publication the following appears: "One subject, S_7, participated ...." The subject began his printout with the following: "The first image I got at about the first minute was of a cement depression ...." (Targ, *et al.*, 1977, p. 522) Why the change of gender? The transcripts are identical, except in the latter publication "SUSAN" has been deleted and "S_7's" has been typed in.

These same two subjects are referred to in a third publication as G_1, an SRI systems analyst, and S_1. (Puthoff, Targ, and May, 1977a) Therefore, the first subject is S_8, now G_1, and the second subject is S_7, Susan and now S_1.

The target and pool of targets for these experiments are chosen in the following manner: "After logging off the computer, the outbound experimenter would use a random number generator to determine which of six locations in New York City would constitute the target to be visited in this experiment. Neither the subject nor the experimenter at SRI knew the contents of the target list that was compiled just before the experiment. Having selected a target location by the random protocol, the experimenter would proceed directly to the site and remain there for fifteen minutes." (Puthoff and Targ, 1977b, p. 7) If this is the case, the target list would have to have been compiled rather rapidly since "At the previously agreed-upon start time (one half-hour after breaking computer links) the subject typed impressions ...." (Targ, *et al.*, 1977, p. 521) This meant that the target person would have to prepare a list, make a selection, and still get to the chosen target within half an hour. The Washington Square transcript was begun at "1354-PDT" and therefore was at the beginning of the rush hour (4:54 PM) in New York City.

(Targ, *et al.*, 1977, p. 524) This flurry of activity and travel within 30 minutes seems implausible.

Or do Puthoff and Targ mean before both the experiments began? "Targets were determined either by random-number generator entry into a previously prepared target list ...." (Targ, *et al.*, 1977, p. 521) If the target list is prepared prior to each experiment and not before the series of experiments, why is it stated: "The five possible targets in addition to Grant's Tomb were a railroad bridge, the 20-story New York University law library, the fountain in Washington Square Park, the Columbia University subway station, and the 72nd Street basin ..."? (Puthoff and Targ, 1977b, p. 8) The same list of targets is used for both experiments and, therefore, cannot be "... compiled after logging off ..." in both cases.

It is interesting to note that the targets fall into three general areas: the New York University law campus is at Washington Square; Grant's Tomb and the Columbia University subway station lie between 116th and 125th Street; and the 72nd Street Boat Basin is located at the southwestern end of Riverside Park, approximately midway between the other two sets of targets. The location of the railroad bridge is unspecified. The second target, Washington Square fountain, is in the opposite direction from the first.

"The targets were chosen to be dissimilar and therefore, differentiable, by potential judges." If targets were chosen so carefully, it would seem as if this might take more time than that allowed in the one-half hour between logging off and arriving at the target, in one case at rush hour. The choice of dissimilar targets does not meet the previous protocol for target selection that was used in the local remote viewing series in which similar, but distinct targets were used.

The second target, Washington Square fountain, was viewed by only one subject, S_7. The transcript is included in both publications. (Targ, *et al.*, 1977, p. 524; Puthoff and Targ, 1977b) The subject, however, is not finished after the first transcription is made: "In a more detailed tape recording made after the experiment, but before any feedback, the subject described 'cement steps going into the depression, like a stadium, and the rounded edge of the top of the depression as you go up to ground level.' These descriptions are not only correct, but also show remarkable detail." Why does the subject make a more detailed second recording? If a subject is viewing a target, and sees these details why aren't these details included in the original printout? What serves as the indicator of the target location after the experiment; i.e., after the target person has left the target?

Although they do not appear on the transcript, apparently the experimenter with the subject does ask questions of the subject during the transcription: "... only declarative statements spontaneously generated by the subject, or responses to direct questions are used for the quantitative analysis." (Targ *et al.*, 1977, p. 522) Although the experimenter with the subject does not know the target list: "Neither the subject nor the experimenter at SRI knew the target list ...." (Targ *et al.*, 1977, p. 522) What kinds of questions does the experimenter ask?

In the transcript, (Targ *et al.*, 1977, p. 524; Puthoff and Targ, 1977b, p. 10) the sujbect states: "THE FIRST IMAGE I GOT AT ABOUT THE FIRST MINUTE WAS OF A CEMENT DEPRESSION - AS IF A DRY FOUNTAIN - WITH A CEMENT POST IN THE CENTER OR INSIDE. THERE SEEMED TO BE PIGEONS OFF TO THE RIGHT, FLYING AROUND THE SURFACE OUT OF THE DEPRESSION. THEN I SAW AS IF IFIF IN THE DISTANCE A REAL STADIUM WITH GRASS IN THE CENTER AND PERHAPS STADIUM LIGHTS.

OTHER IMAGES WERE A ROW OF HOUSES/APICKET FENCE - SOME VERTICAL UNITS WITH JAGGED TOPS. THEN A FLUTED/GROOVED VERTICAL COLUMN, BUT I COULDN'T SENSE WAHT IT WAS RELATED TO." Note that the subject transcribes in the past tense as was seen for a short time in Cole's transcript of White Plaza. (*Mind-Reach*) It then appears that later the subject has a second image: "AGAIN YOU WERE IN A DEPRESSED AREA WITH CEMENT SIDES, LOOKING OUT ONTO THE SURFACE OUTSIDE. THE CEMENT SIDES ARE NOT STRAIGHT, BUT SLOPING, ALMOST S-SHAPED. ... THERE DIDN'T SEEM TO BE ANYTHING REALLY SPECIAL INSIDE, JUST A SEPARATION BETWEEN TEWO TWO SIMILAR AREAS." At the beginning of the transcript, the subject has mentioned the cement depression "THE FIRST IMAGE I GOT AT ABOUT THE FIRST MINUTE WAS A CEMENT DEPRESSION ..." and goes on to describe the dry fountain. This apparently must be another image or an answer to a question from the experimenter.

The subject is also quite familiar with New York City: "ALSO A CLEAR FEELING OF THE HEAVY, WORN METAL BAR ON THE TOP OF TYPICAL NYC OR ANY CITY FENCES .... ALL IN ALL, I THOUGHT YOU WERE IN RIVERSIDE PARK NEAR A TRACK AND PLAY AREA, OCCASIONALLY LOOKING UP AT THE 'ROCK AND LEAF' CLIFFS LEADING UP TO THE DRIVE. AFTER I HAD THOUGHT THAT AND FIT IT IN T WITH OTHER IMAGES RECEIVED SO FAR, IT KIND OF STUCK, AND I POSSIBLY GENERATED MORE PARK SCENES. THE STADIUM/FOUNTAIN IMAGES WERE THE FIRST AND THUS THE LEAST BJIASED AS TO PARK MEMORIES." (Targ, *et al.*, 1977, p. 524) Is there a fountain in Riverside Park that might possibly fit this description?

The entire transcript, in this case, is in the past tense. When does a subject make the transcription? "(one-half hour after breaking computer links) the subject typed impressions into a special computer file ...." (Targ, *et al.*, 1977, p. 521) If a subject is using a tape-recorder, then

the transcription can be made as the subject views the target. "When the agreed upon experimental time arrives, the inbound experimenter simply asks the subject to 'describe what impressions come to mind with regard to where the outbound experimenter is.' Most subjects prefer to close their eyes, but they should simply do what comes naturally .... Since we think that remote viewing is a difficult task, like perceiving a subliminal stimulus, we think it takes the full attentive powers of the subject. Therefore, the environment, procedures, etc., should be as natural and comfortable as possible so that as little attention as possible is on anything other than the job at hand." How does a subject transcribe on a typewriter at the beginning of the experiment and still keep their "full attentive powers" on the viewing itself? It is stated: "In our remote viewing experiments, the final output is typically a tape recording and a written transcript, in which the subject relates his perceptions and experiences with respect to the remote site that he is attempting to describe. It is becoming apparent to us, as experimenters, that some portions of a subject's output are more reliable than others." (Puthoff, Targ, and May, 1978, p. 18) No mention of a written transcript has been made before in the publications to the best of our knowledge. When are these written transcripts made? Before or after feedback from the experimenters or from the site itself, if such a procedure was used during the remote viewing of local sites? "After the target demarcation team returns to SRI, the impressions obtained from the subject are compared with the actual observations of the team. Finally, following the experiment, the subject is taken to the site so that he may obtain direct feedback." (Puthoff and Targ, 1977b, p. 2) When does the subject, during the long-distance experiments actually transcribe? The use of the

past tense indicates that an image is seen and then the transcription made. Does the subject hop back and forth from viewing to transcription: "AGAIN YOU WERE IN A DEPRESSED AREA" ... "AT ONE POINT" ... "LATER" ... "I POSSIBLY GENERATED MORE PARK SCENES" or do the subjects have a series of images and then transcribe the memory of what they saw. Since Puthoff and Targ state: "Two principal sources of noise in the system apparently are memory and imagination, both of which can give rise to mental pictures of greater clarity than the target to be perceived." (Puthoff and Targ, 1976b, p. 346), one questions why this technique would be encouraged.

It is perhaps pertinent to note that Puthoff, Targ, and May are familiar with work relating to subliminal cueing. This is referred to in relation to training: "We have in our laboratory carried out a series of communication experiments involving the transmission, from one laboratory to another, of simple shapes (e.g., T, O, Δ), which also were of different colors for each shape .... The communications series was designed to determine whether a gradient series of perception tasks that mimic the known development of ordinary perception would be useful in the development of paranormal perception. The decision to follow such a protocol was derived from data indicating that the laws of paranormal perception are congruent with, rather than skew to, the laws that govern ordinary perception, especially under conditions of subliminal perception. The particular question examined was whether a specific perceptual orientation process known to hold in ordinary perception of color, would hold in the case of paranormal perception .... Numerous data were gathered with two subjects who were experienced remote viewers. Analysis of the data, which shows learning in both cases, provides initial support for the hypothesis that progress in paranormal perception can be

made on the basis of training drills designed from what is known about ordinary perception. The purpose of this kind of training is the development of excellent and reliable paranormal perception of analytic and other alphanumeric types of target material." (Puthoff, *et al.*, 1978, pp. 30-31) This series apparently must have been carried out prior to the publication of their "Protocol." 5-7.

At the end of the transcript, the subject states: "I SURE DO LIKR THE TELETYPE. IT CAN BECOME AN OBSESSIVE PASTTIME, I SEE). This is followed by: "THAT WAS MESSAGE 6." (Targ, *et al.*, 1977, p. 524) It appears that other messages have been placed in these special files. The first experiment is labelled "message 1." Since the experimental time was set prior to the message 1 transcript, any communication in the TALK mode is not numbered as a message file. We are never told the contents of messages 2, 3, 4, and 5! a

"In attempting to derive a quantitative analysis estimate of the amount of valid data in a transcript, we have made a detailed analysis of the previous two transcripts generated by a single subject during the long-distance experiments between Menlo Park, California, and New York City .... Each transcript typed by the subject into a computer file was edited to retain only declarative statements spontaneously generated by the subject, or responses to direct questions. These statements were collected in groups called concepts .... Each concept was assigned a rating ranging from 0 to 10, depending on the analyst's subjective impression ..." ("We performed four comparative analyses ....") "... as to whether the concept had no correspondence (a rank of 0) or complete correspondence (a rank of 10) with the target. "... if the subject had five references to a condition that could be defined as shady, these would be combined in the concept 'shady'."

(Targ, *et al.*, 1977, p. 522)

In their Table 4 (Targ, *et al.*, 1977, p. 526), the chosen concepts from the transcription are listed with the correspondences. After combining the scores from both transcripts, they state: "From these means we would estimate that approximately 66% of this one subject's response constitutes an accurate description of the target site, whereas if the data are matched against other target sites, only 37% of the response would typically apply. Although crude, this subjective analysis serves as a first step in suggesting a method for further single transcript analysis." (Targ, *et al.*, 1977, pp. 522-523)

In Table 9 the same subject's descriptions are listed, with our rankings of correspondences to Yankee Stadium. (This "target" is relatively close to Grant's Tomb.) The subject's mention of a 'real' stadium was the basis for this choice. Certainly the Yankee Stadium bears a good similarity to the responses made to the Washington Square target by S_7. Does the statement that "... if the data are matched against other target sites, only 37% of the response would typically apply." (Targ, *et al.*, 1977, p. 522) really seem that impressive? The score for Yankee Stadium is estimated at 69%, roughly the same as that for the "correct" target. Once again, careful consideration of a definitive response accuracy criterion seems warranted.

In examining the listed correspondences of this transcript, several additional questions arise. If the fountain is operating, how can the experimenters be in it? If they are speaking of a depressed area outside it, how can a rank of 10 be given to being in an area with cement sides that aren't 'straight, but sloping'? The outside of the entire area appears to be a curb. If the subject is able to see the houses, why is there no

TABLE 9. SUBJECTIVE ANALYSIS OF S_7'S RESPONSES TO WASHINGTON SQUARE TARGET, AND COMPARATIVE CONTENT ANALYSIS TO YANKEE STADIUM

TARGET CHARACTERISTIC	SUBJECT'S RESPONSE	SCORE	CORRESPONDENCE	CORRESPONDENCE TO YANKEE STADIUM	SCORE
1. Cement depression	'a cement depression'	10	We were in cement depression	Exactly	10
9. You are in depressed area with cement sides	'you were in a depressed area with cement sides'	10	Exactly	Exactly	10
10. Sides are sloping almost S-shaped	'cement sides are not straight, but sloping almost S-shaped'	10	Exactly	Yes	7
2. A dry fountain	'a dry fountain' 'stadium/fountain images the first'	8	Operating fountain	Stadium, no fountain	2
3. Cement post in center	'with a cement post in the center or inside' 'nothing special inside'	7	Cement post plus large pipe	Partial	3
4. Pigeons off to the right	'seemed to be pigeons off to the right, flying around the surface out of the depression'	8	Pigeons were in the park nearby	Yes; pigeons all over NYC	8
14. You were feeding popcorn to pigeons	'you feeding popcorn to pigeons'	3	Others were	Others were	3
5. Stadium with grass and lights	'in the distance a 'real' stadium with grass in the center' 'perhaps stadium lights' 'stadium/fountain images the first'	3	Scale factor	Exactly	10

TABLE 9. (continued)

TARGET CHARACTERISTIC	SUBJECT'S RESPONSE	SCORE	CORRESPONDENCE	CORRESPONDENCE TO YANKEE STADIUM	SCORE
6. Rows of houses, picket fence	'a row of houses/a picket fence'	9	Houses with iron fences	Yes, nearby	6
11. Heavy worn metal	'a clear feeling of the heavy, worn metal bar on the top of typical NYC or any city fences	7	Copper posts in fountain	Yes, bar/railings	9
12. Separation between two different areas	'separation between tweo two similar areas'	6	In and out of fountain	Yes, field and seating areas	10
13. You were opening a cellophane bag	'you were opening a cellophane bag' 'looking out onto the surface outside'	10	Yes	Yes	10
15. Rectangular wooden frame ... on a building	'rectangular wooden frame, a window frame' 'wasn't sure if it was on a building, or a similar structure with different purpose'	5	Could be the arch	Could be related to basic structure	5
16. Riverside Park, tracks and play area	'you were in Riverside Park near a track and play area' 'more park scenes' 'looking up at 'rock and leaf' cliffs'	3	Play area nearby	Partial - track and play area correct	4
		mean = 6.8			mean = 6.9

mention of the arch which greatly dominates the area?

Similar confusions and questions arise with the Ohio caves target. "A third long-distance remote-viewing experiment was carried out under the control of an independent, skeptical scientist. In this case, both SRI experimenters, while visiting in Ohio, agreed to take part in a remote-viewing experiment in which our host would select the target."

"Under the observation of our challenger, we telephoned subject S_4 in New York City and obtained the subject's agreement to participate in a long-distance remote viewing experiment. The subject was told only that we were located somewhwere between New York City and our California laboratory and that shortly we would be taken to a target that we would like to have described." (Targ, *et al.*, 1977, p. 523) This subject is also referred to as H_1 in another publication (Puthoff, *et al.*, 1977a) and by name in the other. (Puthoff and Targ, 1977b)

As S_3 had been residing in New York and S_4 apparently in California, one wonders why S_4 is used for this experiment if she was on vacation in New York City. Did this trip relate to the trip during which the long-distance experiments were carried out with the Grant's Tomb and Washington Square targets? If so, it seems unlikely that some contact was not made with the subjects. Targ was certainly in New York and there is a reference in one transcript to "H": "IT SEEMED TO BE IN FRONT OF H."

If the subject had any general idea as to where the experimenters might be, even just a city name, the use of the word "shortly" to the subject, followed by the time the experiment was to start would give the subject an indication of how far away the target might be. In addition, the return call was set for one hour later, which also provides the subject with some

sort of information as to the length of time is would take to return: "We also agreed to call again at 3:00 PM EDT to obtain Subject 4's impressions and to provide feedback as to the actual target." (Targ, *et al.*, 1977, p. 523)

"A second subject (S_8) working by himself at SRI, who had agreed in advance to participate in the same experiment by time and date, was less successful with the cavern target." (Targ, *et al.*, 1977, p. 523) This subject is also referred to as G_1 in another publication (Puthoff, *et al.*, 1977a) and omitted from the third. (Puthoff and Targ, 1977b)

If the experiment was done on the spur of the moment, after arrival, hence necessitating a call to S_4: "... both SRI experimenters, while visiting in Ohio, agreed to take part ...", how, at the same time, could a date and time be pre-set with another subject? "A second subject ... had agreed in advance ... by date and time ...." (Puthoff, *et al.*, 1978, p. 523)

A quick look at a standard road map of Ohio reveals that both the Ohio Caverns and the Air Force Museum are noted in red lettering in the Springfield/Dayton area. There are few other places of interest shown. "This subject erroneously interpreted early impressions as associated with a museum. As a result the majority of his transcript, although containing some correct elements, reflects primarily an incorrect analytical interpretation and cannot be said to constitute evidence for paranormal functioning." (Targ, *et al.*, 1977, p. 523)

In the transcript itself several images are presented: "... something to do with underground caves or mines or deep shafts ... nuclear or some very far out and possibly secret installation ... corridors ... whole underground city ... arbor-like shaft ...." (Targ, *et al.*, 1977, p. 523) These images are described in more detail: "... some electric humming ... inner

throbbing ... man helped nature ... vines (wisteria) growing in arch ... darker earth ... cool moist passage ... bank of elevators ... a very man-made steel wall ... shaft-like inverted silo ... brightly lit ...." (Targ, *et al.*, 1977, p. 523)

Targ, Puthoff, and May state: "As if (is) often the case, one observes that the basic gestalt of the target site is cognized and even experienced -- e.g., the underground caves aspect, while specifics are misinterpreted -- e.g., the labeling of the location as a nuclear installation." (Targ, *et al.*, 1977, p. 525) Enough elements are included in the description that it could apply to either type of target, and therefore be called successful. The image presented actually might apply to an imagined perception of an underground installation, rather than a cave.

The final two experiments in this series were carried out between New Orleans and California, one in each direction.

"The first experiment in this series involved Subject S_7 in New Orleans viewing activities of a group of three people known to the subject, at a location in a Palo Alto/Menlo Park area 2000 miles away." (Targ, *et al.*, 1977, p. 525) The title under the corresponding picture reads: "REMOTE VIEWING EXPERIMENT - NEW ORLEANS TO PALO ALTO, 30 OCTOBER 1976." (Targ, *et al.*, 1977, p. 527) However, in the other publication, the following is stated: "During an extensive cross-country trip, we arranged to conduct two experiments between New Orleans and Menlo Park, California, one each way .... For the first experiment (subject in Menlo Park) ..." and "the most recent ... involved a subject in New Orleans ...." (Puthoff and Targ, 1977b, p. 11) Which did come first? The picture corresponding to this target is labelled: "LONG DISTANCE REMOTE VIEWING EXPERIMENT - SRI, MENLO PARK, TO LOUISIANA

SUPER DOME. SUBJECT DESCRIBED LARGE CIRCULAR BUILDING 31 OCTOBER 1976." (Puthoff and Targ, 1977b, p. 12) The picture of the other target, used in the Louisiana to Palo Alto experiment is dated: "NEW ORLEANS TO PALO ALTO, 30 OCTOBER 1976." Therefore, although the pictures in both publications are labelled with the same dates, the text indicates both of these experiments as the first.

The experiments "... were carried out with the two subjects who had participated in the New York-California experiments." (Puthoff and Targ, 1977b, p. 11) In the earlier publication there are no direct references to subject's identity other than by gender: "... the subject in Menlo Park would tape record his impressions .... He also expressed feelings ...." (Puthoff and Targ, 1977b, p. 11) "The most recent experiment in this series involved a subject in New Orleans viewing activities of a group of three people known to her, at a location in the Palo Alto/Menlo Park area ... She reported ...." (Puthoff and Targ, 1977b, p. 11) The other publication is more specific: "The first experiment involved S_7 in New Orleans ..." and "During this time, S_8 in Menlo Park ...." (Targ, *et al.*, 1977, p. 526) S_7 identified earlier as Susan, "The second subject, a medical student ..." (Puthoff and Targ, 1977b, p. 8) (and as S_7) apparently was taken on "... an extensive cross-country trip ..." (Puthoff and Targ, 1977b, p. 11) so that she could participate in this one experiment. This subject, although serving in the New York City experiments, did not participate in the Ohio experiment.

Subject S_8, who earlier was "the first subject, an SRI systems analyst ...", and G_1 participated in one of the two New York City targets (Grant's Tomb) and the Ohio experiment as "... A second subject (S_8) working by himself at SRI ...." (Targ, *et al.*, 1977, p. 525) If he is used at this time as a subject and

participated in the Ohio experiment, why didn't he participate in the second New York experiment?

The targets for these two experiments were chosen in the following manner: "The target chosen by randomized entry into a New Orleans guidebook list was the Louisiana Super Dome." (Puthoff and Targ, 1977b, p. 11) The selection of the targets is made on the following basis: "The methodology with regard to target selection again was designed to eliminate possible cueing paths. Targets were determined either by random-number generator entry into a previously prepared target list unknown to subject and experimenters ...." (Puthoff, *et al.*, 1977, p. 521)

In these experiments, the target selection, by another person and maintained unknown to the experimenters in accordance with the standardized protocol (Appendix B), was done quite differently. Apparently the division director stopped handling the target pool sometime during the local series as the following is stated: "The target team is assigned their target location by an independent experimenter ...." (Targ, *et al.*, 1977, p. 519) since this is in reference to the earlier work with Price and Hammid. The independent experimenter, also called monitor "... then obtains sealed traveling orders from a monitor ...." (Targ, *et al.*, 1977, p. 519) In the opening paragraph of Cole's transcript the following is reported: "... PHYLLIS COLE IS THE REMOTE VIEWER, AND RUSS TARG IS THE MONITOR ...." (*Mind-Reach*, p. 104) Is Targ now the monitor, target selector, and experimenter?

S_8 made two drawings of the Super Dome. (Puthoff and Targ, 1977b, p. 12) One is a front view and the other an aerial view. The handwriting on the aerial view looks similar to that on the San Andres, Columbia airport drawing. (*Mind-Reach*, p. 12) Although we profess no expertise in this area, a comparison

might be in order. Note the words "grass" and "cement".

The subject's quoted descriptions vary within both publications. Under the drawings and pictures, the following appears: "'A ROUND GOLD RIM AROUND A SUNKEN DEPRESSION' ... 'IN THE SURFACE OF THE DEPRESSION THERE IS SOME KIND OF FAKE CHINA FLOWERS. IT'S LIKE A BONSAI TREE MUSHROOMING OUT OF THE SURFACE.'" This is quoted in the text as: "Her principal impression was of a 'overhang of a building over their heads ... also a round gold rim around a sunken depression.' The target, a bank building is shown in Figure 10. Principal features of the target include a dramatic building overhang and a rectangular concrete depression with a fountain in which the water comes out of a circular gold rim. The subject also reported 'some kind of fake china flowers mushrooming out of the depression.' There were four orange lamps mounted on the gold rim." (Puthoff and Targ, 1977b, p. 11)

The pictures used to depict this target are two close-ups, one shot from the side showing the two experimenters throwing something and showing only the lower portion of the building. The pool is apparently off to one side so that only one upper corner appears. The other photo is a close-up of the fountain within the pool and what appears to be a circular metal piece that contains the jet-type, water outlets and four spot lights beneath the metal piece. The pool is tiled.

"Finally, she reported 'there was a projectile coming toward David (one of the outbound experimenters). Like a ball or frisbee, as if Elizabeth (another experimenter) has tossed him a ball.' Actually the experimenters had found a paper airplane lying on the ground and had thrown it back and forth for some period of time. In fact, the photo of the site taken at the time of the experiment shows the airplane between them. This is one of the

few times that a remote viewing subject has perceived rapid motion at the target site." (Puthoff and Targ, 1977b, p. 11)

"R9: All blind judging, matching, and statistical evaluation of the results (which is where the scientific issues are decided) are completed *before* photographs are taken, ..." (Targ, *et al.*, 1977, p. 528)

"In short, at all times, we and others responsible for the overall program took measures to prevent sensory leakage and subliminal cueing and to prevent deception, whether intentional or unintentional. To ensure evaluations independent of belief structures of both experimenters and judges, all experiments were carried out under a protocol in which target selection at the beginning of experiments and judging of results at the end of the experiments were handled independently of the researchers engaged in carrying out the experiments. In five years of self- and other-criticism, we have not found a way to fault either the experimental protocols or the conclusions derived therefrom." (Targ, *et al.*, 1977, pp. 528-529)

Yet, two of the experimenters at this target site were "David" and "Elizabeth". Puthoff and Targ acknowledge her contribution in a footnote: "We wish to acknowledge the technical contributions of Elizabeth A. Rauscher, a consultant on leave from Lawrence Berkeley Laboratory, who has done extensive research on physical theories relevant to psi functioning; in particular, work on multidimensional geometrics." (Puthoff and Targ, 1977b, p. 13) She is also mentioned in another publication: "The extradimensional hypothesis is based on the ideas of Targ, Puthoff, and May (SRI), G. Feinburg (Columbia University), and E. Rauscher (University of California Lawrence Berkeley Laboratory) ...." (Puthoff, *et al.*, 1978, p. 19) Rauscher, *et al.* (1976) also report an experiment in remote viewing which will be described

later. The experiment showed negative results. Although the results were negative, the subject apparently described the previous day's target on the following day in at least three sessions. "The first target showed a strong resemblence to the subject's descriptions during the second session and the second target seemed to be related to the subject's descriptions during the third session." (p. 43) - 5 - ?

This same type of reporting can be seen in the description for Visitor D_1. In his drawing, he includes the building he had seen the day before. "He also described seeing a building that is not at the target site. This sort of superposition of erroneous imagery on otherwise accurate descriptions is a common occurrence ...." (Puthoff and Targ, 1977b, p. 6) u

If this is a common occurrence, how easy it would be to use those (previous day's) transcripts as the transcript for the (current day's) target. The transcripts are randomized and handed to a judge. The order in which the experiments are run has been misreported in several cases. Swann's Palo Alto City Hall is listed as the first target but is actually his second as he refers to "miniature golf course from yesterday?" on his drawing. (*Mind-Reach*) The same reversal is seen in the reporting of Elgin's first two transcripts. The BART station is reported as his second target in one publication (Targ and Puthoff, 1975) and as his first in *Mind-Reach* (p. 80). Price mentions the marina in his seventh transcript of Allied Arts and the marina is the fourth target, although it appears to be quite vivid to him. "They don't feel as far away. I'd say that it is about - not half the distance they were to the marina ...." (*Mind-Reach*, p. 65) To carry over a feeling after the use of two other targets is quite remarkable. u