

A holographic portrait of Ronald Reagan

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ABSTRACT

The first holographic portrait of a President of the United States of America was recorded on May 24, 1991, in Santa Barbara, CA. Ronald Reagan was the subject. The event was the first in a project that began some five years ago with the aim of producing an archive of Presidential pulsed holographic portraits. The authors discuss the inception and evolution of the project. They describe the unique interactions, communications and scheduling as well as trials and triumphs involved in recording a holographic portrait of such a prominent public figure.

1. INTRODUCTION

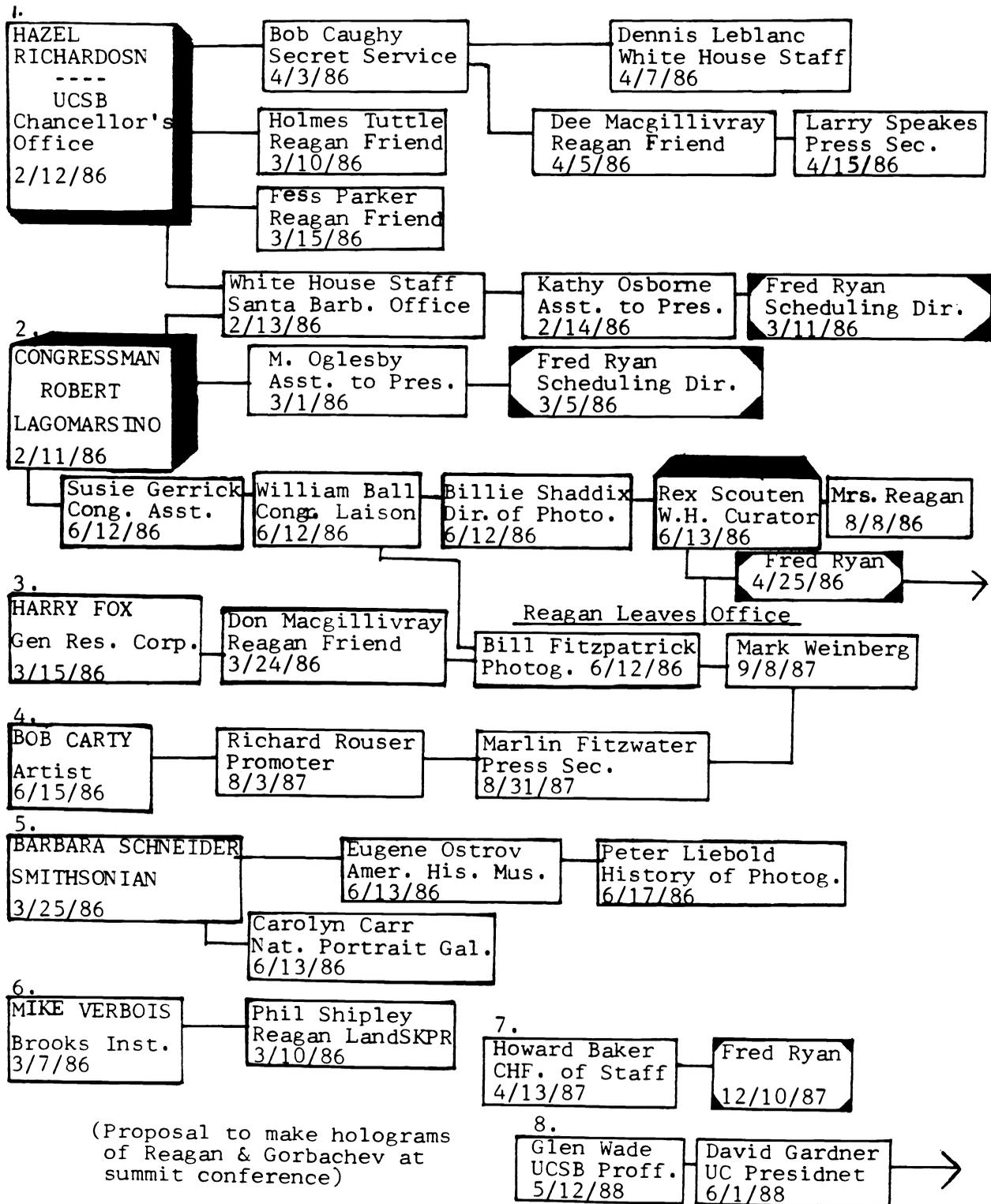
The holographic portrait archive project, set out to capture for posterity, portraits of the Presidents of the United States of America with the recording medium of pulsed holography. As President Ronald Reagan was in the White House at the time of the project's inception it was considered appropriate that the first ever presidential holographic portrait be of him. The following outlines the efforts towards producing the portrait of Mr. Reagan from the essential groundwork brought about by extensive correspondence, through the technical preparation to the actual portrait session. A great deal of effort was expended with, in the end, only an hour to accomplish the task. The first ever holographic portrait of a USA President was recorded on May 24, 1991.

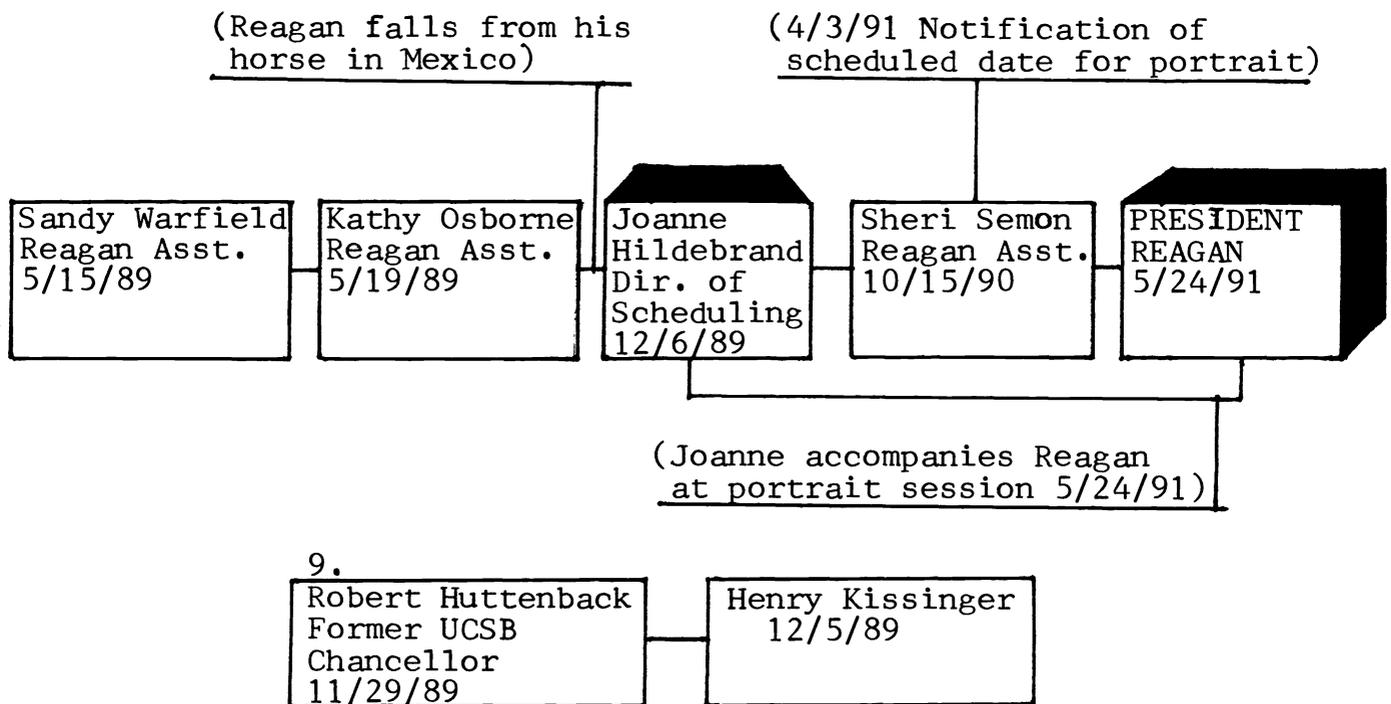
2. PROJECT ORIGINATION

The idea to create a portrait archive holographically of national leaders beginning with President Ronald Reagan was conceptualized some five and a half years ago (during Mr. Reagan's last term of office) by three holographers of very different lineage: Dr. John Landry, Co-founder of the Science Discovery Center and Associate Director of the Advanced Imaging Laboratory at the University of California at Santa Barbara; Dr. Hans Bjelkhagen, Associate Professor of Biomedical Engineering at Northwestern University, IL. and Penn Stallard, Artist currently residing in Chicago. On January 26, 1986, Dr. Landry was introduced to Dr. Bjelkhagen by Penn Stallard, at this meeting Landry became familiar with the pulsed holographic portraiture by Bjelkhagen. Out of subsequent discussions among the three emerged the project to record archivally the holographic visages of the Presidents of the USA beginning with Mr. Reagan.

3. Phase I: GROUNDWORK [January 26, 1986 - April 3, 1991]

The project was essentially initiated after the first meetings in January of 1986. Landry a resident of Santa Barbara which is a short distance from the Reagan Ranch in the Santa Ynez valley (the then "Western White House") offered to broach the subject with California political figures, local Reagan supporters and others. Bjelkhagen in the roll of Technical





Ron Kolb
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By: John Landry

FIGURE 1. TIME LINE (1/26/86 - 4/3/91)

Director of the project supplied Landry with holographic portraits which were used as examples of the type of work being proposed. As illustrated in (Figure 1) Landry's efforts with the participation of numerous supporters took shape over a five year period. Landry filled the role of Project Coordinator and has kept meticulous records, documenting the correspondence and meetings that led to the event, including two separate visits to the White House, once with co-author Michel Marhic and on another occasion with Penn Stallard. (Figure 1) signifies the time line, indicating when various contacts were made and were they led.

On April 3, 1991, Landry received confirmation by telephone from Reagan assistant Sheri Semon that Mr. Reagan would be traveling in mid afternoon from the Reagan Ranch to Los Angeles on May 24, 1991. She said he could schedule an hour out of his traveling time to make a stop in Santa Barbara for the holographic portrait session.

4. Phase II: PREPARATION [April 3, 1991 - May 24, 1991]

After receiving the call from Sheri Semon, plans that had been discussed, changed and reorganized on numerous occasions now had the opportunity to become concrete. Landry notified those who had planned to participate to find out if their schedules were in conflict with the proposed date and time of the portrait session. On April 9th Landry and Unterseher met with Ernest Brooks II at Brooks Institute of Photography to reconfirm the use of a suite, located in the Tower Building on the Institute's Montecito campus, as the holography studio. The suite had been selected by Bjelkhagen as a possible site for the studio in 1989. The scope of the event was also discussed, as to the number of people that would attend and questions concerning press coverage (as it turned out none). Over the next two weeks there was a great deal of correspondence between Reagan's office and those involved in this active phase of the project. Reagan Staff members and Secret Service men visited the site and plotted their course of action.

On the weekends of April the 6th and 26th, Michel Marhic visited Santa Barbara to discuss plans for the event with Landry and Unterseher. On April 29th, Holicon formally committed its resources to the realization of the project, including the specialized equipment and personnel required to set up and operate a pulsed holography studio away from its home base. The agreements and scheduling plans that developed out of these meetings brought about many of the physical changes that needed to be met. In compliance with Bjelkhagen's technical direction the next two weeks were spent transforming the suite into a holography studio, basically turning: an ordinary dormitory room into housing for the laser camera system and hologram viewing area; an oversize bathroom into a dark room and a small anteroom into a make-up room. The building was electrically wired in the 1930s so it deserved some considerations (fuses were blown more than once) plus a 220V line was installed to accommodate the pulse laser. The studio and darkroom were painted and made light tight. A custom wood frame table was made to Bjelkhagen's specification for the pulse laser and optics and finally connections were included to join the laser to the water lines in the dark room. This was all accomplished through the efforts of staff members at Brooks Institute with Fred Unterseher. Meanwhile in Chicago, Bjelkhagen and Marhic were packing and shipping the pulsed laser system, optical components and photo chemistry as well as ordering recording plates for the project. The shipment arrived on the 14th, on the 15th Unterseher installed the laser and made contact with Randy Leach the laser service engineer who tuned and aligned the laser on the 16th, 17th, 20th and 21st. Leach overcame a number of delays throughout the four day period, but had the JK 2000 HKS 3 Laser in good working order by Bjelkhagen's arrival on the evening of the 21st.

On the 22nd Bjelkhagen began the final stages of transformation of the studio and darkroom, recreating a proven system in a unproven setting. He spent most of the 22nd. positioning the laser and various components of the system with the assistance of Unterseher (Figure 3.). As is customary in unproven settings modifications had to be made, however they were not insurmountable. Michel Marhic arrived on the evening of the 22nd. He and Bjelkhagen made the system ready for test recording on the 23rd. (Figure 2) illustrates the setup used for all of the transmission master recordings of the holographic portraits. Mr. Brooks, President of the Institute, came to the studio at 4:00pm that afternoon as the first portrait subject to be recorded with the system. He stayed until 10:00pm while tests were conducted. Mr. Brooks with his strong background in photography made some valuable contributions pertaining to subject positioning. Bjelkhagen and Marhic stayed until 2:30am to insure that the system would be fully operational. Brooks agreed to return to the studio on the morning of the 24th and by 11:00am his portrait was complete.

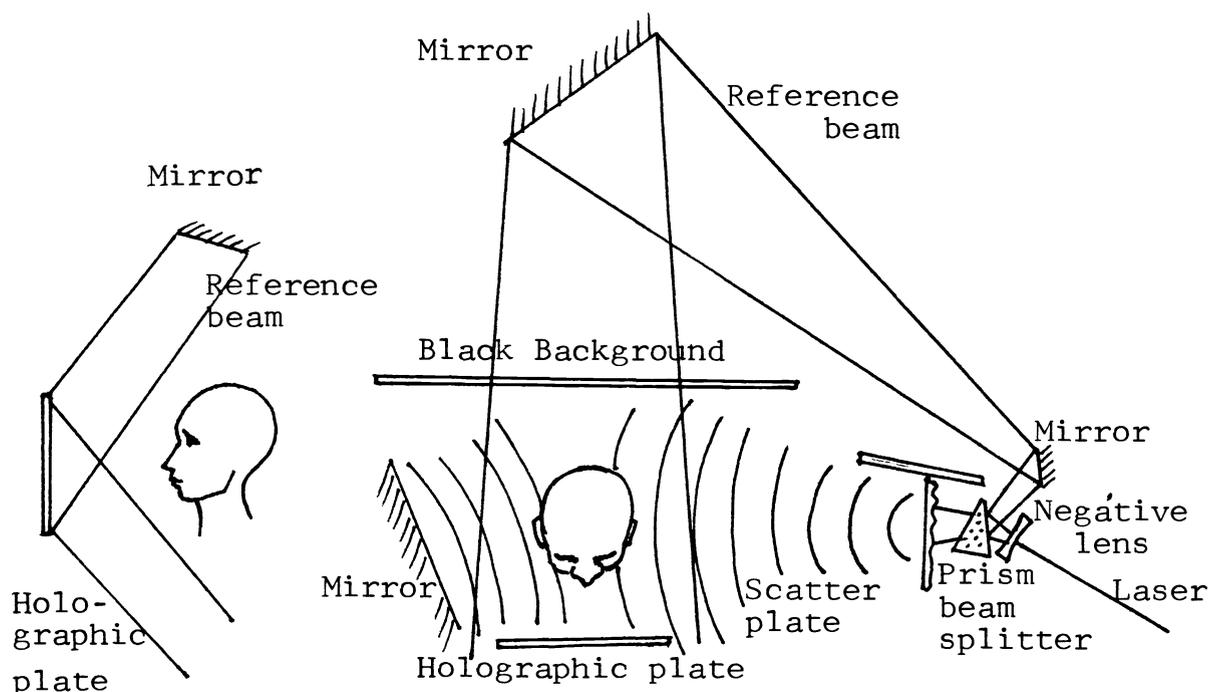
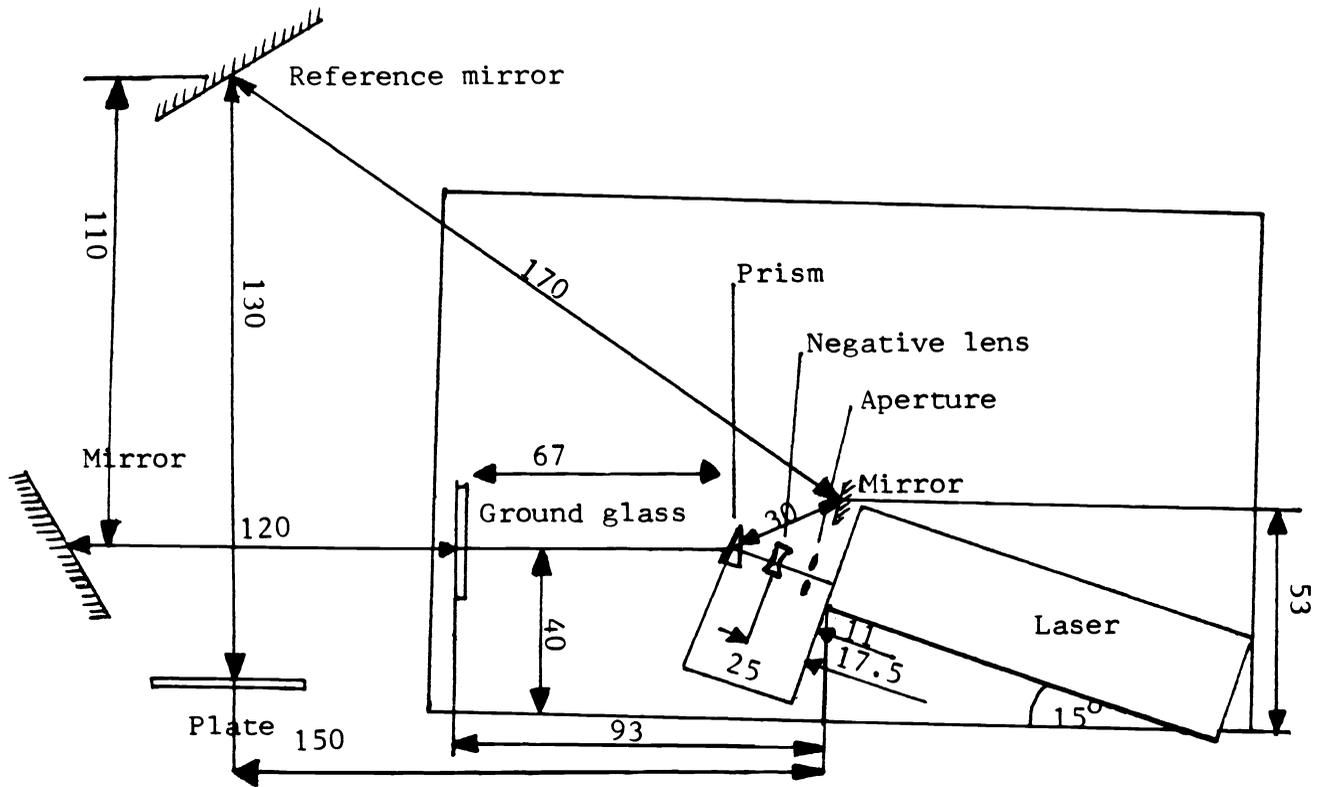
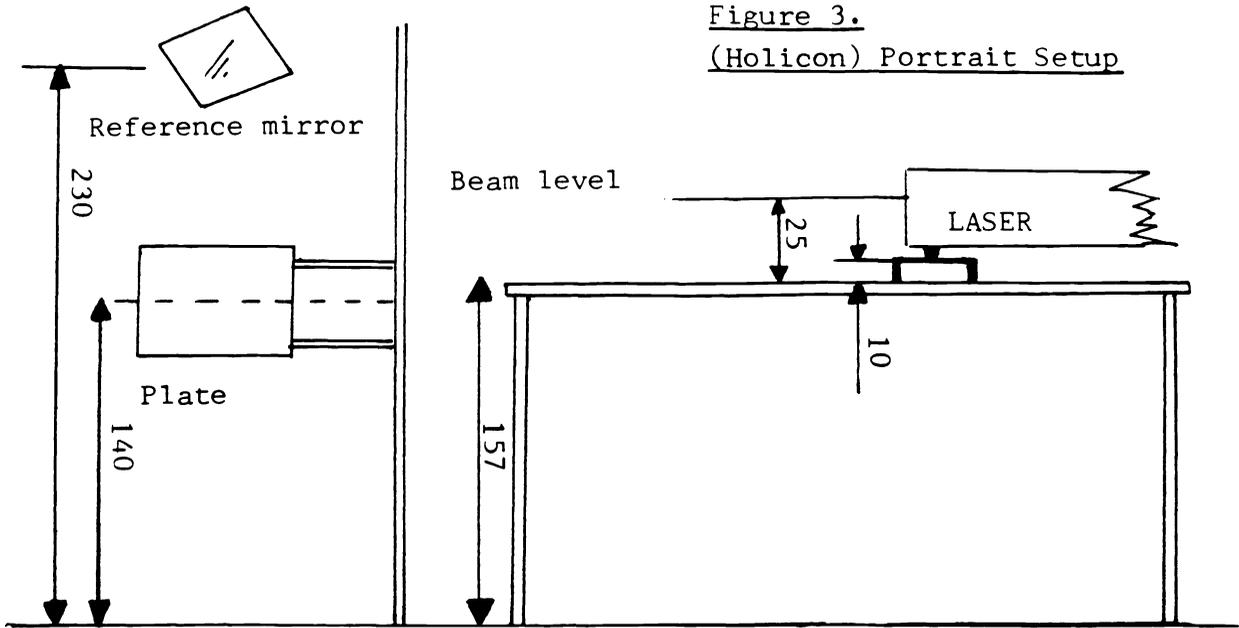


Figure 2. Transmission Master Setup

Figure 3.
(Holicon) Portrait Setup



5. Phase III: PORTRAIT SESSION [May 24, 1991, 2:30-3:30pm]

5.1 Final hour

May 24th turned out to be a bright and sunny California day. The final hour went smoothly owing largely to the well prepared and carried out plans. The following gives some indications as to those in attendance and the agenda for the hour of the portrait session.

The nature of the project, required that security be of prime importance, due to the upcoming national holiday (Memorial Day, Monday the 27th) many students were expected to leave the Brooks campus early for the weekend, therefore diminishing risks and delays in the eyes of security. To ensure further security Mr. Reagan's Scheduling Director requested that only the essential participants attend the portrait session, this request was explained with denials to a number of people who wanted to be present and was the prime reason that only a few select Brooks staff members were aware of the public figure's identity. The press did not attend and only a select few were informed afterward.

5.2 Security information for Friday May 24, 1991, 2:30-3:30pm

The Presidential party including Mr. Reagan, some members of his staff and Secret Service men arrives at approximately 2:30. They occupy the Tower building which is closed to all nonessential personnel along with all entrances and exits to the building. Mr. Reagan and party leave at 3:30.

The following persons received Secret Service Clearance to participate in the Presidential portrait session:

Holography Studio

Hans Bjelkhagen
Ernest Brooks
John Landry
Ric Larsen
Michel Marhic
Vern Miller
Pres. Reagan
Fred Unterseher

Tower Reception Area

Rebecca Deem
Matthew Delellis
Anne Ireland
Barbara La Piana
Randolph Leach
Jill Reger
Penn Stallard
Don Veit

Joanne Hildebrand - Mr. Reagan's Director of Scheduling

5.3 Agenda for Friday May 24, 1991, 2:30-3:30pm

Since the Presidential party arrived five minutes earlier than planned, the following is an amended version of the original agenda.

2:25.....Arrival of Presidential Party.

2:28.....Introductions at Tower reception area, Mr. Brooks introduces himself and John Landry, then Landry introduces Hans Bjelkhagen, Michel Marhic and Fred Unterseher, to Mr. Reagan.

2:30.....Photographs taken of Pres. Reagan with Brooks, Landry, Unterseher, Bjelkhagen and Marhic by Miller and Belcher

2:33.....Pres. Reagan is escorted to the Make-Up room where he is introduced to Rebecca Deem and Anne Ireland by Mr. Brooks. Cosmetics are applied.

2:45.....Brooks with Bjelkhagen and Marhic acquaints Pres. Reagan with the holography studio and Brooks positions him for the portrait.

2:50.....The first hologram of Mr. Reagan is recorded-processed-viewed (but there was no image).

3:05.....The second hologram is recorded-processed and viewed by those in the holography studio including Mr. Reagan. The hologram is returned to Unterseher for processing.

3:07.....A brief break is taken during the processing of the hologram , more photos are taken while Mr. Reagan talks with those in the reception area.

3:16.....Mr. Reagan returns to the holography studio where four more holograms are recorded consecutively, then processed, dried and viewed.

3:22.....Pres. Reagan returns to Make-Up room, for removal of cosmetics

3:26.....Thanks and farewell remarks are expressed.

3:30.....Departure of Presidential party.

Following the departure, the last four recorded holograms were viewed along with the first two. They were all evaluated for technical and aesthetic merit by the holographers and numbered accordingly with the "best" hologram receiving the number one. As it turned out, the second hologram recorded received the number one rating. On the evening of the 24th the holograms were carefully packed. Michel Marhic hand carried the holograms on his return flight to the Chicago area the next day.

6. Phase IV: PRESENTATION PORTRAIT [May 24, 1991 -]

To insure the safety of the Master (H1) holograms, contact copy holograms were produced at Holicon in Chicago. The master hologram with the number one rating was then carefully packed and sent to Sweden where an image plane reflection transfer was produced by Jonny Gustafsson at Holovision AB in Stockholm. The transfer system at Holovision (Figure 4.) was created to work in conjunction with the Holicon pulse master setup. These matching systems along with the use of a Krypton laser help to eliminate as much distortion as possible in the transfer hologram. Currently a limited edition of transfers are being produced. One will be presented to the Reagan Library in Southern California which is expected to open the first week of November 1991. The following credits will accompany each hologram in the limited edition as one aspect of the documentation and authentication of the portrait.

7. CREDITS FOR THE REAGAN HOLOGRAPHIC PORTRAIT

Concept:

Dr. John Landry - Instructor, Brooks Institute of Photography/UCSB

Dr. Hans Bjelkhagen - Professor, Northwestern, Univ.

Penn Stallard - Artist

Key Participants:

Congressman Robert Lagomarsino
Susie Gerrick - Asst to Congr. Lagomarsino
William Ball - White House Congressional Liaison
Billie Shaddix - White House Director of Photography
Rex Scouten - White House Curator
Fred Ryan - White House Director of Scheduling
Dr. Glen Wade - Professor, UCSB Electrical Engineering
Dr. Robert A Huttenback - Former UCSB Chancellor
Hazel Richardson - Asst. to UCSB Chancellor
Dr. Eric DeJong - Researcher, California Institute of Technology
Robert C. Carty - Artist/Art Appraiser

Master Hologram. Holographers:

Dr. Hans Bjelkhagen, Holicon Corp.
Dr. Michel Marhic, Holicon, Corp.

Assistant Holographers:

Fred Unterseher, Brooks Institute of Photography, Advanced Imaging Laboratory/UCSB
Rebecca Deem, Holographic Artist/Writer

Portrait Direction:

Mr. Ernest H. Brooks, II., President, Brooks Institute of Photography

Master Hologram Recording Location:

Brooks Institute of Photography, Montecito campus Holography Studio
Provided by Mr. Ernest H. Brooks, II, President, with assistance from
Barbara La Piana, Assistant to the President

Reflection Transfer Holographer & Facility:

Jonny Gustafsson
Holovision AB, Stockholm, Sweden

Cosmetics:

Ann Ireland - Licensed Cosmetologist,
Rebecca Deem - Cosmetics Director

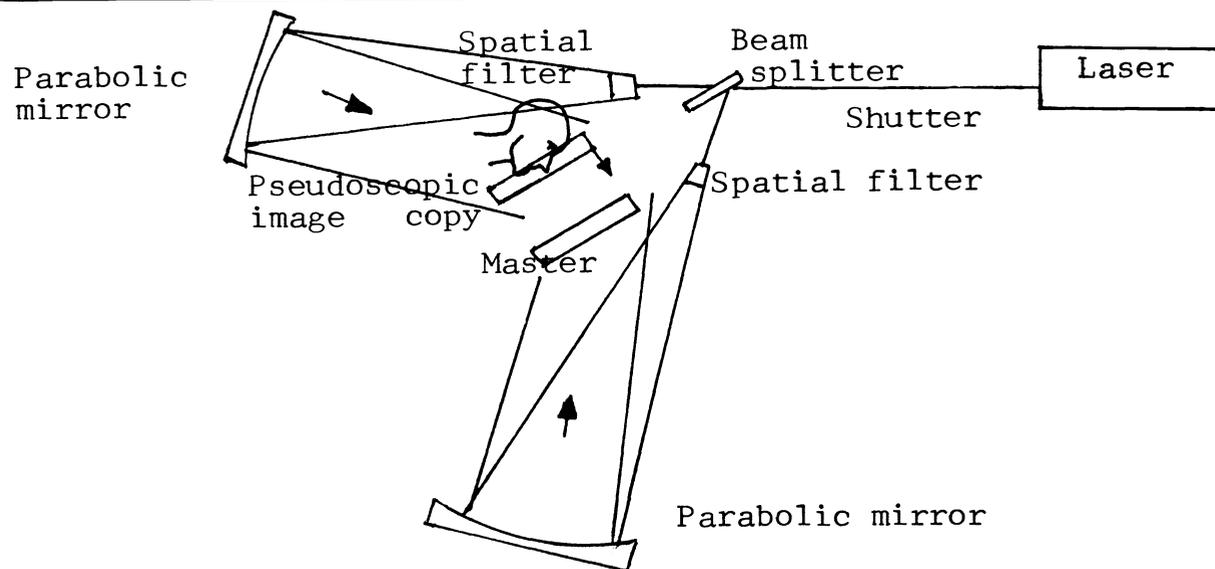
Funding & Support:

Holicon Corp. - Holographic System
Brooks Institute of Photography - Physical Location and Support Staff
Agfa-Gevaert - Holographic Recording Materials
Lumonics Corp. - Randolph Leach, Laser Service Field Engineer

Presidents Reagan's Office:

Joanne Hildebrand, Kathy Osborne, Sheri Semon and Sandy Warfield

Figure 4.
Reflection Transfer Setup



8. CONCLUSION

During the Andrew Jackson Administration any american could stop by the White House on any given day and ask to have lunch with the president. Since then the country has grown in scale as well as population so much so that access to the president by any american citizen for such a purpose as a historical portrait is indeed a rare occasion. To have one hour, considering the time and energy that went into the effort of bringing the portrait session about, does create a sort of "count down" sensibility among the participants, perhaps unnecessarily since after seeing his portrait, Mr. Reagan was heard to remark, "If I had known about this, I would have had it done sooner". On November fourth of this year all of the four former Presidents and President Bush are planning to attend the opening of the Reagan Library in Simi Valley, California. Since the Reagan holographic portrait will be prominently visible, it is hoped that this unusual opportunity will generate an interest in still more presidential portraits for the archive.

9. REFERENCES

1. Bjelkhagen H., "Denisyuk-Reflection Holography: Recording and Copying Technique", ISDH Vol. I 1982
2. Bjelkhagen H., "Holographic Portraits; Transmission Master making and Reflection Copying Technique", ISDH Vol. I 1982