

THE EERI ORAL HISTORY PROGRAM

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ABSTRACT

The oral history program of the Earthquake Engineering Research Institute (EERI) produces printed and electronic books about individuals who have made history in the earthquake engineering field and who tell that history in their own words. These volumes are more than raw transcripts of interview sessions, because they are carefully edited to be concise, readable, and well-documented. Experience from the EERI program is presented as an aid to others in developing or advancing oral history programs of earthquake engineering in their countries. That expansion of oral history programs in this field can be a significant way to better record and study the challenges and accomplishments that have made the field what it is today.

KEYWORDS

History of earthquake engineering

1. INTRODUCTION

As of 2008, the oral histories of the following 18 individuals have been published in 15 volumes by EERI in its *Connections* series of oral history books. In order of publication from 1994 to present, they are: Henry Degenkolb, John Blume, Michael Pregnoff, John Rinne, George Housner, William Moore, Robert Wallace, Nicholas Forell, Henry Brunnier, Charles De Maria, Egor Popov, Clarence Allen, Joseph Penzien, Robert Park, Thomas Paulay, Clarkson Pinkham, Joseph Nicoletti, LeRoy Crandall (EERI 2008). See Figure 1. The following seven oral histories are in progress as of this writing: William Anderson, Vitelmo Bertero, Roy Johnston, William Hall, Ugo Morelli, Mete Sozen, and Robert Whitman. The volumes in the series are described and made available via the EERI website (<http://www.eeri.org>) in the Oral Histories subsection of the Publications section.

2. ORIGINS OF THE PROGRAM

The EERI *Connections* series was originated by the work of one person, Stanley Scott (1921-2002), a political scientist who was for three decades (1958-1988) the Associate Director of the Institute of Governmental Studies of the University of California at Berkeley. In California, those who emigrated to there before the Gold Rush of 1849 and the formation of it as a state in the USA in 1850 have the special status of being early pioneers. Similarly, people like Scott who began to devote their careers to the earthquake subject prior to the 1971 San Fernando Earthquake are early pioneers in an analogous way. After that earthquake, there were many building code research and development projects, prior to it there were few. After that earthquake, it was relatively common for large research universities to offer a civil engineering course devoted solely to earthquake engineering, prior to then it was rare. Legislation on earthquake issues was enacted frequently, at least in California, after that earthquake, but was limited to very few laws and regulations before then. Not all changes in the field occurred because of this earthquake, though it was very influential, but it serves as a useful watershed demarcation between the era when the field was small and the era in which we are still in when the field is large. The number of people in the earthquake engineering field rapidly expanded after about that time, as can be indicated with respect to EERI. In 1973 EERI changed its bylaws so that individuals could apply for membership; prior to then only a few individuals were singled out and invited to become members. The organization usually had an average of 25 to 50 members in its

first twenty years of existence, but by the end of the 1970s reached a membership level of approximately one thousand. For further information on the overall history of EERI, see Tubbesing and Anagnos (2008).

As of the 1980s, Scott saw the field expanding and maturing, and he realized that there was a need to conduct interviews with and compile oral histories on the generation of American engineers and earth scientists who had been the first to teach courses on earthquakes in the university, to put seismic regulations in the building code, and to systematically study each damaging earthquake.

In 1968, the University of California - Berkeley Institute for Governmental Studies where Scott was Associate Director published *Earthquake Hazard in the San Francisco Bay Area: A Continuing Problem in Public Policy* (Steinbrugge 1968). The book was technically sound – Karl Steinbrugge was a structural engineer who had studied a number of earthquakes by that time. In addition, almost uniquely among the technically expert people in the field, he was already crossing over into the public policy arena and was to wield great influence over both California and Federal programs. The book was easy to understand and had clear policy recommendations. At a time when there were very few seismic safety policies and laws, the book gave policy makers the confidence that enacting seismic safety regulations was a reasonable thing to do.



Figure 1: EERI Connections series of oral histories, published as paperback books

How did Steinbrugge's book influence Scott to get into the earthquake field, and later to launch the EERI oral history series?

The ideas in Steinbrugge's report were immediately picked up by Bay Area state Senator Alfred Alquist, who got a joint legislative committee going on a shoestring budget in 1969. The topic's urgency was highlighted by the 1971 San Fernando earthquake, giving Alquist's effort a much-needed push. Thus began the state's great involvement in the earthquake problem. It had the unexpected personal payoff of launching me on a parallel career in seismic safety and earthquake engineering policy, which included 18 years on the Seismic Safety Commission. (Scott 1995)

It was especially through his membership on the state's Seismic Safety Commission, which was established in 1975, that Scott met the people he was to chronicle in the oral histories. The University of California Bancroft Library Regional Oral History Office supplied some early assistance with transcription of Scott's magnetic tapes. That library, named after Hubert Howe Bancroft (1832-1918), historian of the Western United States, started its tape-recorded oral histories in 1954, motivated by Bancroft's original 1860s pre-tape-recorder efforts to have dictated memories of Western pioneers noted. (Regional Oral History Office 2008) The Bancroft Library oral history program's method of operation (Regional Oral History Office 2008) is as follows:

Interviews are conducted with the goal of eliciting from each participant a full and accurate account of events. The interviews are transcribed, lightly edited for accuracy and clarity, and reviewed by the interviewees, who are encouraged to augment or correct their spoken words. The reviewed and corrected transcripts are indexed, printed, and bound with photographs and illustrative materials.

A university that operates an oral history program may be a resource for capturing earthquake engineering history. One that may be singled out as having several oral histories related to this field is that of the California Institute of Technology: see <http://oralhistories.library.caltech.edu/>.

As Scott compiled extensive manuscripts, from raw transcripts to versions edited by him and the subject, the plan for EERI to publish them evolved. A graphic designer, Laura Moger, was retained to design the standard layout of each of the volumes, and this design template has stood the test of time. A technical editor, Gail Hynes Shea, was brought on board to edit the final manuscripts and index each volume.

3. POLICIES

When Stanley Scott died in 2002, the author took up the task of continuing the series. A key difference was in the decision to make the selection of oral history candidates and review of manuscripts a committee role rather than one individual's responsibility. Thus, EERI President Chris Poland set up the EERI Oral History Committee in 2002, and the author has served as chair since. Subsequently, the strong support of the publication series has been forthcoming from subsequent EERI Presidents Thomas D. O'Rourke, Craig Comartin, and Thalia Anagnos. The other members of the Committee are William Anderson, Roger Borchardt, Gregg Brandow, Ricardo Dobry, Robert Hanson, and Loring A. Wyllie, Jr. The composition of the Committee was designed to provide a variety of disciplines, including structural engineering, social science, geotechnical engineering, earth science, and architecture.

The basic job of the Oral History Committee was clear enough: keep the well-loved series going and don't change its formula for success. While being careful with any changes in the program, one innovation was to articulate specific criteria for whom the series was designed to include. We foresaw that inevitably there would be more worthy candidates than could be included in the series, and so we needed some written guidelines. These policies have gone through the review and approval of the President and Board of Directors of EERI. The charge of the Committee is to be

responsible for the *Connections* series of publications, which are oral histories of individuals who: (1) have made an outstanding career-long contribution to earthquake engineering, (2) have valuable first-person accounts to offer concerning the history of earthquake engineering, and (3) have backgrounds, considering the series as a whole, that appropriately span the various disciplines that are included in the field of earthquake engineering.

“Earthquake engineering” in this context has a broad definition in keeping with EERI’s multi-disciplinary composition. While Scott focused on California structural engineers, along with a few earth scientists or geotechnical engineers, the *Connections* series under the guidance of its Oral History Committee has broadened the scope to include subjects who have lived and worked elsewhere, and the disciplines covered by the Oral History Series now includes social sciences and public policy. Members of EERI, or others, may suggest candidates. The EERI Oral History Committee meets from time to time, typically once or twice a year, and develops a priority list. Those that are moved to the top of the list and that the Committee feels can be feasibly taken on as additional projects are forwarded to the Board for its approval. The chair of the committee has been the volunteer who then proceeded with the work of the oral histories, but other members of the committee are now becoming engaged in that work.

4. PROCESS

What steps are involved in producing an oral history? Step One is to explain the process and policies to the intended subject and gain approval. The agreement in the EERI Oral History Program is that the subject has the final editorial approval of what can go in that volume. A subject may mention a name in a critical way in private conversation but would not want that comment recorded in print. EERI oral histories are interesting to read because they are conversations between the interviewer and interviewee, and that fluidity would be reduced if the subject had to worry about exactly how the spoken words would appear in print. The subjects need not repeatedly say “that was off the record,” because they get to see and edit the manuscript. Having the right to delete material from the oral history is not the same as having the right to include any material the interviewee may desire. The EERI Oral History Series has to ensure that whatever does end up between those covers is accurate and has the appropriate tone. In the author’s experience, this has never been an issue, but an organization producing oral histories should have a policy position on this editorial control.

Step Two is to do background research. The most complete version of the subject’s curriculum vita is obtained and references are looked up. In addition to reviewing the subject’s c.v. and other written information, a few telephone calls to people who have known the subject help the interviewer elicit additional questions to ask. I have also tried to quote those colleagues of the interviewee in the text in advancing their question or bringing up a topic, in an effort to widen the conversation. I have found it helpful to group the author’s writings or projects by subject, even if they are separated by several years, because the oral history, when published, will not jump back and forth from one era to another or from one topic to the another as a conversation does, but rather will be organized in chronological and thematic chapters. Typically the first few chapters trace the story of the individual’s ancestors and extend up through childhood and college. Later chapters may be chronological, but often they include thematic chapters covering aspects of the person’s career and topics in the earthquake engineering field.

Step Three is to draft a chapter outline, with first-level and second-level subheads, of the intended final book. This becomes the working draft of the plan for the interviewing. One need not make the interview linearly proceed through that table of contents. Because the interviews are conversations, they must be allowed to change course. However, having the intended final structure in hand, which both interviewer and interviewee have consulted in advance, is a great help. Because one cannot predict what information will come out of the interviews, my experience has been that I have yet to produce an initial table of contents that matched the final one. Some new

chapters are added, an intended one may become merely a subsection of another, and the order may be changed. As the table of contents evolves, it becomes a way to keep score on which intended topics have been covered.

Step Four is the interview process itself. In the author's experience, it is rarely possible to visit the subject and conduct a morning and afternoon interviewing session that wraps up this step in a single day. It is likely that half a dozen interview sessions, each lasting two or three hours, will be necessary. Having a draft of the manuscript incorporating material from an earlier set of interviews is useful for both interviewer and interviewee in conducting further interviews to see what topics have been left out or needs to be re-visited. I usually only glance at the draft outline of the contents during interviews and don't write out specific questions in advance. Obviously, one can articulate more precise and concise questions by writing them in advance, which would reduce post-interview editorial time to clean them up, but this would also tend to diminish spontaneity. Two recorders are used to allow for equipment malfunction. Today's small digital recorder, a feature which is often included in digital cameras, are much easier to use than cassette tape recorders. Not only is the digital equipment itself more compact, it also doesn't need the bulky extra batteries and tapes that one must bring along with the cassette tape recorder. It is also easier to back-up the digital sound files on computers and storage media. These sound recordings are intended only for use for the duration of the oral history production process, because as noted above, the subject does not agree to have all the words of the interviews released "raw."

Step Five, production of the written manuscript, is intermingled with the interviewing step as mentioned above. Even if a transcriber types out a transcript from listening to the recording, I have found it necessary to listen to the complete recording anyway. There are too many words or abbreviations that can sound like completely different words, there are inevitably blank spots in the transcript where the typist could not discern a few words when the subject turned away or background noise intruded. The interviewee often gestures to fill out the meaning of what is said, and of course the transcriber, not having been there, cannot reflect that meaning. There are inexpensive foot-pedal-operated controls to use in transcribing from the recording, whether it is tape or digital. Included in this step is locating photographs to go in the section at the back of each volume. Finding a good range of photos can be time consuming. It is fascinating to see how the famous subject looked when in kindergarten, for example, but old photos may be hard to locate. Photos that illustrate the subject's avocations and family are included, as well as ones that document events in the subject's career and the development of the field. Photos are scanned in color, even though the books are printed in black and white, because electronic versions (.pdf files) are posted on the EERI website and can accommodate full color images.

When the content of a chapter is finalized, a keynote quote is selected that will lead off that chapter, immediately following the chapter title. One example will indicate how these quotes can whet the appetite of the reader: "It was late at night, and eventually the guard with the machine gun began to doze off." (Paulay 2006, p. 93)

EERI oral histories are not transcripts. Several kinds of editing occur. Entire sections of conversation are moved from the place where they were originally spoken to another place in the book where they eventually fit more with other conversation material on the same topic. Casual conversational asides are deleted, otherwise the reader would be subjected to extraneous sentences about the fact that the interviewer has to go put more coins in a parking meter to continue the interview or talk about what we are going to cover in the next interview session. Some colloquial forms of speech are tightened up to read better, though the intent is to keep to the spirit of the original conversation. Footnotes are added so that the books stand up as scholarly works of history, allowing interested parties to go back to original sources. Drafts are printed out for the interviewer/author and interviewee to review. One hour of interview has generated approximately one day of post-interview work on my part. Investigating and checking facts to write one concise footnote can take an hour, for example. At least one other member of the Committee is a designated reviewer of the near-final manuscript, and usually there are two. Drafts of the manuscripts are controlled and confidential, which goes back to the original agreement with the subject. Only the final published version is a public document.

Step Six is when the individual selected by the interviewee writes a Personal Introduction. These short introductions (typically two or three pages in length) provide, as their name indicates, a personal way of introducing the reader to the subject of the oral history and the pages that follow. The individuals who write these introductions are given the manuscript as it stands at that point in time to aid them in their writing, and they invariably also find a few dates or other facts that need correction or have other review comments that improve the manuscript.

Step Seven is when the manuscript leaves the hands of the interviewer and goes to editorial consultant Gail Hynes Shea and to the EERI Publications Manager, Eloise Gilland. The Executive Director of EERI, Susan Tubbesing, has typically read through the manuscripts at this point as well. Thus, besides the interview subject and interviewer, who are the ones closest to the manuscript and who may therefore fail in some instances to “see the forest for the trees,” there are approximately six other individuals who read the manuscript. Ms. Shea always finds needed corrections in what I deliver, no matter how carefully I have scrutinized and edited it. She also reads the manuscript afresh and has useful advice on reorganization of some sections, clarification of others, or ways to crop out repetitious material. She also thoroughly indexes the volumes. Since Ms. Shea has been involved with the series from its inception, and has also edited a large number of other publications over the years, I asked her for her perspective on the EERI Oral History Series. She replied (Shea 2008):

The EERI oral histories are unique. They are stripped of redundancy and organized into cohesive chapters. Meanings are clarified and expanded during review and editing in a way that would not be possible were the term “oral history” defined merely as a strict transcription of a conversation. I feel that this series has achieved two significant goals: it gives permanence to memories of history and personal interactions, and is eminently readable as well.

Step Eight is the production and distribution of the book in its final printed and electronic form. The graphics consultant, Laura Moger, puts the Word document into page layout form. Then follows another review by Shea, Reitherman, Gilland, and the subject. The printed version is produced as a paperback book and mailed to the 2,500 members of EERI, and a further stock is printed to be available for sale. The companion .pdf version is available via the EERI website. The electronic versions widen the reach of the Oral History Series, especially via searches conducted on the World Wide Web. It should be noted, however, that the printed books are often read the way one reads a novel, even though these are nonfiction works: one starts at page one, gets interested, and keeps on turning the pages. That sort of reading is discouraged when the text is read from a computer monitor. The financial cost of each volume consists of the consultant editor’s and designer’s labor, a small amount of EERI staff time, and printing and mailing costs. These costs sum to about \$20,000 per volume.

5. COMPARING THE ORAL HISTORIES WITH RELATED PUBLICATIONS

The EERI oral histories, as noted by Shea above, are readable books, which requires the extensive steps and effort described above. There are related works with which they can be compared.

Commemorative interview publications have a different purpose. They typically start with the goal of praising the subject, as in a virtual award ceremony, whereas the EERI Oral History Series attempts to include critical questions as well as “soft lobs.” While it is an honor to be selected for the EERI Oral History Series, EERI has a completely separate awards series under the purview of a different committee. The real purpose of the EERI Oral History Series, as that title states, is to document history. There is verified information included in those volumes that can be found nowhere else, and the Oral History Committee, consultant editor and designer, and EERI staff, are committed to ensuring that the volumes perform that valuable historical role.

The oral histories are not autobiographies of the “as told to” type. A look at a typical page will show that they are based on the structure of an interview, the “ping pong” of back-and-forth conversation between interviewer and interviewee. Magazines often use the interview format, generally for brief articles. The EERI Oral History Series extends to topics that are related to the person’s career but which would be outside the scope of a purely autobiographical or biographical treatment. For instance, an engineer may provide a simple explanation of an engineering term or concept for non-engineer readers, or a policy expert may explain how a bill moves through Congress. Biographical information about other people is also included.

6. SUGGESTIONS FOR FURTHER WORK

Preserving and studying the history of earthquake engineering is not limited to oral histories. Collections of drawings, doctoral dissertations, correspondence, photographs, and physical artifacts such as instruments, laboratory equipment, and specimens (models) that have been tested in laboratories are also valuable. All of these types of historical evidence are usually outside the scope of operations of a typical library, and thus special efforts must be mounted to ensure that these resources do not disappear.

The EERI Oral Series is generally limited to individuals from the United States. This has been done for practical reasons, even though it is recognized that there are many worthy subjects in other countries who have had pioneering roles in the field. There is a long list of desired subjects in the queue who are Americans, and EERI is the US national earthquake engineering society, so if EERI does not tend to these American subjects, no one else will. Extending the reach of the series to other countries could also be seen as intrusive rather than supportive. Language and culture are other reasons for leaving oral histories of subjects in other countries to individuals and organizations there to conduct. Toward that end of encouraging oral history programs in other countries, some suggestions can be offered based on the EERI experience.

Funding is necessary, even if the labor is mostly volunteer, and even if the publications are produced as electronic rather than printed-and-mailed documents. High editorial standards are necessary. Collaborations may be appropriate for a given subject, such as when an oral history of a professor could be produced by an earthquake engineering society and also that individual’s university. It may be desired to create video oral histories rather than printed ones, which can evoke the personal characteristics of the author, but which also diminish the documentary content that would be included in a written work. Video makes impossible the careful editing and fact-checking that results in refinements to the spoken word in the EERI Oral History Series. Policies should be set before beginning an oral history program, such as criteria for whom to include as subjects, and the responsibilities and extent of editorial control of the subjects as compared to the interviewers and other individuals of the organization publishing the oral history. The policies noted above used by EERI are not the only ones from which to choose, but setting some policy framework is recommended. And lastly, based on the author’s experience, those engaged in oral histories should be aware that the endeavor can become an addictive labor of love. The permanently documented history that a wide readership will enjoy, as well as learn from, will be fascinating, inspiring, and worth all the work.

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