Women in Architecture: Path and Practice

by
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Submitted to the Department of Architecture
in Partial Fulfillment of the Requirements for the Degree of
MASTER OF SCIENCE IN ARCHITECTURE STUDIES
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ABSTRACT

This project presents an exploration of the lives of three women in the field of architecture today. Through interview, discussion, and the use of electronic, digital media a history of each individual's history unfolds. The hierarchy of information and design were linked from the early stages of the project and it is in the final form of the project that one can discover a format that is consistent in its presentation and navigational structure. The goal was to enable the user to "walk through" the information and compare stories and experiences. Thus, the viewer is encouraged to draw his or her own conclusions from the information presented in the document rather than be influenced by suppositions of the author.

This thesis project was also a study in the creation of an electronic document that would report information of interest to the discussion of gender in the professional world of architecture. The aim was to make this information available to a large number of people through the use of an electronic information distribution service such as the Internet. The architects' stories are available to the public for viewing and learning on the Netscape browser. The second aim was to design a project that would be visually appealing while working within the constraints of the Netscape browser application on the WorldWideWeb. The latter was interesting in its design challenge; I believe this challenge was met. Functional browser programs do not prohibit an attractive, interesting display of information.

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To gid-thank you for all the support you have given me over the past two years; your belief in me has made a world of difference. I don’t know where the future will take me but I will carry with me your image as a strong, caring, intelligent, professional woman.

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All illustrations by the author.
Introduction

Why “Women in Architecture”?

In this thesis project, portraits of three women architects were created by incorporating text, video interviews and still images using HyperText Markup Language (HTML) in the Netscape browser. The aim of this project is twofold. It describes the presence of gender issues in the professional world of architecture and the architects’ relationship to these issues. Second, but no less important, was the goal of creating a visually appealing project that synthesizes the information using the WorldWideWeb (WWW or Web) as a multimedia system. The latter was a particular challenge due to the constraints of working within the design space afforded by HTML on the Web.

I have always been interested in how women achieve success in their careers. This interest stems from an ongoing curiosity of how people work (more than function) despite obstacles in their lives. Listening to an individual’s story often illuminates how that individual arrived at a place of success and continues to grow and learn. The women interviewed for this project recount how and why they became architects. They spoke candidly about the obstacles they faced in architecture school and of the difficulties of working in a profession where a woman architect must first prove herself competent simply because she is a woman. The remarkable and encouraging piece of the story is that despite adversity they continue to enjoy the profession they have chosen.

The dearth of pleasing presentation in the informa-
tion being disseminated through the Internet continues to be apparent. It is in part due to the ongoing lack of dialogue between the engineering and design professions. Originally the WWW was developed by scientists for scientists. However, the widespread use of the Web means that the end users are no longer scientists and are increasingly concerned with the presentation of documents as well as their content.

I chose the WorldWideWeb browser Netscape as the primary framework upon which to build a document, since it is widely used and has the most pleasing presentation of the popular browsers. It also incorporates HTML extensions that proved useful to the design of the project. My objective was to incorporate various forms of electronic media in an informational document that was graphically pleasing yet meets the Web's goals of portability across different browsers, platforms and network connections. Several examples of the project's documents have been included in this paper to illustrate the design.

This thesis describes the overall process of creating the Web document. The first chapter discusses the architects, the second chapter discusses methods and issues. The third and fourth chapters discuss the technical and production processes. The fifth chapter will describes the design process. Additional interview information and project documents are given in the appendices. The Web project can itself be viewed with Netscape 1.1 at the following address:

Choice of Subjects

Three architects in the Boston area agreed to be interviewed on video for this project. The women chosen were interesting for their difference in age and experience and for their choice of work within the field of architecture. Certainly, the scope of the current project does not present a complete picture of the situation, but it is a beginning. I hope to expand the study to include more subjects at a later date.

Ellen Dunham-Jones, a professor in the School of Architecture and Planning at the Massachusetts Institute of Technology, shared her story and thoughts about the profession of architecture today. Ms. Dunham-Jones went to architecture school at Princeton in the early 1980’s for both her bachelor’s and master’s degrees. Ellen talked about discrimination while at school and while teaching in another university system. Ellen believes that ultimately one must not let the system undermine the individual. It is important to see the obstacles and try to work around them or “deal” with them.

Jane Weinzapfel and Andrea Leers, the other two women, are partners in an architectural firm in Boston. They have known each other for more than twenty-five years and have worked together in various settings for most of this period. Both these women attended architecture school in the early 1960’s when they were often the only female in class. Their stories describe how through their youthful naïveté they went through their school programs not questioning the discriminations that surrounded them. That the real isolation of the time didn’t stop them
attests to their determination to succeed. Only later in the early '70's, when they were working and by then registered architects, did the momentum of the women's movement intercede and both became active in a group called WALAP, Women in Architecture, Landscape Architecture and Planning. From that point they began to develop skills which would help them to make significant changes in their professional lives.

Ellen Dunham-Jones
Andrea Leers
Jane Weinzapfel
Methods and Issues

Interviews

The video interviews were used to capture the architect's story and personality. I felt it was important to be able to see and hear these women as they described their lives in architecture. Their gestures, facial expressions and voices also add color and import to the story. The initial concept stated that the video was to be a primary medium with which to convey information and create the portraits of the architects; this was to change when the Web became the medium of choice. Though the video is still a major data resource of the project, it is a secondary medium in the Web interface.

The idea of using interview as a method of inquiry arrived partially from a paper I had written for a Learning and Epistemology class taught by Seymour Papert at the MIT Media Lab. Students in the Architecture Department were questioned about learning computer aided design software; the interviews began with family and education history and closed with the AutoCad learning experience. I was interested to find out how the males and females were encouraged or discouraged by family and instructors and how this impacted their learning ability, confidence in class, and the decisions they made in their academic careers. These interviews were conducted with a tape recorder and then transcribed. The questions of education and family influence were important in that they revealed in this small cross-section of students a pattern of confidence or lack of confidence. The men seemed less apt to
question themselves in the face of adversity or not-knowing. The women vocalized their struggles and doubts about the class and their mastery of the software even if they did in the end accomplish the same tasks as the male students.

For this thesis the questions asked of the professionals incorporated a similar line of query. The questions were developed as aids to delve into the individual’s history in architecture. I was looking for core issues of how they were affected by the times in which they studied, trained and began their professional work. They were also asked how they perceived the current state of the profession. A small set of questions allowed me to concentrate on a few core issues. I was interested to hear if these women felt encouraged or discouraged by their families and educators. Since all of the women have been working for many years, career decisions and work situations had already come into play for them. I was also interested to hear how they worked against diversity and stayed focused on the work at hand, in other words, what kept them motivated.

The architects agreed to be interviewed but also wanted to see the list of questions in advance. All women were working within tight schedules and with the Leers/Weinzapfel appointment, I was allotted one hour in which to interview both women. The questions were edited and refined in order to cover the material in the limited time. I arrived at a list of eleven questions that I felt could be covered in the given hour. They are as follows:

INTERVIEW QUESTIONS

1. How and when did you become interested in architecture?

2. Did your parents or family encourage your education? How?

3. Were there obstacles that impinged upon your decision and education?

4. Who were your role models?

5. Have you experienced any obstacles in the profession of architecture related to gender? Please talk about these.

6. Did you, or do you at present, feel as though you’ve hit the “glass ceiling”? Please talk about this.

7. Do you perceive differences in the profession today compared to when you first began your career? What are they? With other professionals (contractors, developers, etc.)?

8. What changes do you envision in the near and long term future for women and the profession?

9. What advice would you make to other women in the profession?
10. What do you hope to accomplish in your career?

11. What do you consider to be your major accomplishments? What are you proud of?

Responses to the interview questions were incorporated in the final project. The main topics found on the Web are: early interest in architecture, educational experience, work experiences and one optional topic. The selections were chosen primarily as a way to compare the answers of these women. I felt that through repetition and comparison a story would start to unfold. Experiences from different time periods, the mid-1960's and the early 1980's, help to illustrate what each woman experienced in corresponding situations. Ellen felt discrimination while at school and was even vocal about it; this is something that neither Jane nor Andrea were aware of let alone capable of discussing with their dean of students. Both of these women simply accepted that things would be different for them as female students and readily admit that they didn't even question the inconsistencies until the 1970's when their professional environment offered an opening for discussion and action.

A few examples help to illustrate how the responses can be used in a comparative form to draw out the changes and mark the similarities. Below is Jane's description of her studio experience while in architecture school in the early sixties.

"... getting into an architecture school environment where you're the only woman was quite affecting. It affected my behavior. I was seen and not heard. I thought if I didn't make any noise no one would know I was there... so I became very, let's say isolated in my architectural education. This was at a time before the pill, the schools were in loco parentis, there was a requirement to be inside your dormitory at 10:30...all of the activity in the
studio seemed to start at 9:45, and so I ended up doing my projects either at night alone in the dining hall, which was spooky, it was spooky being the only person downstairs working all night...And I also learned to work in the studio early in the morning, when there was no one there. So, there was a temporal dislocation by being a woman in the early sixties, as well as the not being noticed.”

In contrast, twenty years later, Ellen reports of being aware of the problem at the time and trying to do something about it.

“I had one professor who out and out told me women didn’t belong in architecture studios. He was very bitter...that Princeton had gone coed, and he out and out told me, and he screwed me on a grade. I mean I had gotten A’s on every single project, and I suddenly get a B+, and I went to him and said “Excuse me, but how did this add up?” And he says, “You got a B+. Be satisfied.” And I looked into it, and he had never ever given any woman higher than a B+. So in his eyes I had done very well. And I then brought it to the attention of the director of the undergrad program, who simply said, ‘Look, I’ve got you next semester. I’ll try to make up for it, but there are certain minds you can’t change, and it’s not worth fighting the battle.’ I wasn’t happy, obviously, with that, but I think it just, if anything it just sort of taught me that yes, there are different generations, and you deal with different generations differently.”

Ironically, discrimination still existed in Ellen’s education; the only thing that had changed apparently was that she was able to talk about it publicly. The system in which she was working still wasn’t able to stop it from happening.

Yet another example of the impact of gender in the field is illustrated with the following excerpts. Here, Andrea Leers talks about presenting a proposal to a potential client.

“One of the most difficult interviews I ever had, years ago, was at Radcliffe College. I was in practice perhaps 12 years by then, and the group who was interviewing me, who I think were half and half women and men, asked me the most amazing questions. Had I actually gone into the field and done field supervision? Had I done all those drawings? And I found myself explaining, well, eight years ago I did, yes, and now there are people I work with who are assisting me and doing that. But I found myself explaining to these women, who were extraordinarily doubtful. It was a mixed group, but I think I probably went in thinking “Now this is a group that is liable to understand and be particularly inclined to accept us.”

Andrea and Jane both agree that “being a woman is never not an issue” each time they meet clients or other professionals for the first meeting.

Ellen talks about interviewing for teaching positions in 1993.

“I know that MIT absolutely was going to hire women, there was no question the year that I came in. So does that mean do I still, would I live up to neutral, to gender-blind credentials? Am I somehow, do I have to sort of wrestle with doubt that I’m not really up to the standards or any of that? To a certain point you can spend your life doubting things...
And the problem there is I think that if you're hired for that reason and not because a school is genuinely interested in your work, come tenure time, come promotion, all you are is a person who pees sitting down. They can get another one...And I found that there are some schools that I interviewed at where that was really clear, where they weren't even really asking me about my research. And that's again just really a product of the times we live in. There's tremendous pressures on the schools, for a good reason, to try to bring in more women faculty, and I'm benefiting from it now..."

In both of these examples we see that being a woman brings with it a certain level of doubt or questioning from others and maybe even self about ability or worth.

Due to the scope of a thesis project, much of the interview material is not currently on-line. I felt it important to include the transcripts of the interviews in this thesis (see Appendix B) because they are a valuable source of information and should be documented on paper until they can be further used in a multimedia project or in the current Web project.
Technology

Through the use of hypertext browser, Netscape 1.1, and the WorldWideWeb a viewer is able to link and access information of various kinds from a remote server using a network connection. The use of Netscape 1.1 allowed me the most freedom in design within the confines of the widely available browsers at the present time. This by no means implies that the choice is a universally acceptable one but for this project it represented the most graphically sophisticated application available.

The Web is a network of machines connected through the Internet. The advantage of using the Web is that it is the most portable way of making integrated text, graphics and video data available to a wide audience. It also provides the potential for interactivity. The use of HTML allows one to combine digital images, video and text to compose a Web page. All of these elements can be used to embed hyperlinks to other documents that the viewer may engage at his or her choosing.

At present, this is one of the fastest growing forms of communication and attractive to users because of its speed and international accessibility. The use of the Web as a way to link and access information was attractive to me because of these features. The portability of the browser across platforms also makes it more appealing than other hypertext programs such as HyperCard and SuperCard which are Macintosh platform limited.

I deemed it important for the viewer to get a sense of
the subject's personality. I accomplished this by including short audio and video clips, but at the cost of some portability. Macintosh audio and video formats were the best choice, and allow convenient access from Macintosh platforms, but require configuration before they can be viewed on other platforms. The sheer size of audio and video data also makes them difficult to handle.

The use of HTML allowed me to create a presentation form that is based on parallel structure. Figure 1 shows the hierarchical structure behind the "Women in Architecture Project". Lines represent folders within folders, and also reflect the construction of URLs. Individual pages also contain many hypertext links across the hierarchy (not shown) for the purpose of navigation to central points and comparison between corresponding pages for the different interviewees. Providing the hierarchy or structure with expansion in mind makes the task of adding to a project at a later date easier. If I choose to interview more architects, I am able to add their files to the server in my directory. The information must be processed, video and other images must be converted to digital form, but the links and cross referencing of the material can be made or modified to accommodate the additional names and files.

When other architects are added to the project their name or file can be attached to the project home page and a link to their individual directory will enable access to the files. If the database becomes very large, a simple hypertext directory can be used to access the individual’s files.
Figure 1: Implementation Model
Describes the overall hierarchy of the Netscape document

women in architecture home page

ellen dunham-jones
bio
projects

jane weinzapfel
bio
interview
Leers Weinzapfel projects

andrea leers
bio
interview
Production of Total Document

This section describes the process involved in collecting the data used in project, the problems of working with HTML, and the compromises made and solutions reached.

Video

Each of the interviews was recorded on Hi-8 video tape using a Sony video camera. The audio was recorded on a DAT (digital audio tape) recorder using an external microphone worn by the interviewee. Following the interview the HI-8 recording was transferred to Beta videotape for editing purposes. Beta is a high quality format used for editing in professional production; whereas, Hi-8 is not built to withstand the rigors of repeated editing. The audio track must be laid down onto the beta tape and then the video is added in synchronization with the audio. Once this procedure is complete, the editing can begin.

The process of editing the interviews was very time consuming. Each tape was reviewed so that small, yet meaningful, clips could be transferred to a final edits tape. These excerpts were intended to stand alone as opening statements for the individual responses given to the various interview questions for the project. The time it took to process and make the rough edits of the two interviews was spread out over a two week period of editing daily.

The video clips were converted to digital form so they
could be displayed on a computer monitor and eventually incorporated into the project. The software used to digitize the video was Adobe Premiere with a Radius VideoVision card. This set-up allowed high quality digital images to be captured at the full-motion video rate of 30 frames per second (30/fps). The video could then be post-processed with a different compression scheme, size and frame rate to save on disk space and transfer time. However, this trade-off is at the expense of quality.

In the “Women in Architecture” project, the digital video was re-compressed with Apple Cinepak compression at 140kbps (kilobytes per second) to provide smaller files and therefore faster downloading from the server to the individual computer. Each video clip was on the order of one to two megabytes in size, which translates to a download time of approximately fifteen seconds for a 1Mbps connection, or a minute for a 250 Kbps connection. The audio-video portion of my project is accessible to people in the local area or with a good Internet connection, but inaccessible to people using dial-up lines. With a 28 Kbps modem, the download time may exceed ten minutes per movie.

Unfortunately, the greater the compression the greater the degradation of the video. There is a tradeoff between quality and quantity in providing data such as video over the Internet. I chose to compress at the rate stated in order to have longer video clips in which the architect’s statements could be intact and hopefully represent her character. Of course, this does put the viewer at a disadvantage in that he or she will have to wait for the information to download from the server. This is part of working with hypermedia within the parameters of the Internet. Later, I discuss the compromises made in order to work with the available technology.

Originally, the intent was to use video as the main medium with which to create these portraits. However, once the decision to use the Internet and Netscape was made, this was no longer a possibility. The use of large amounts of video over the Internet is time and space prohibitive. Digital video files require large amounts of storage space on a computer disk; also, the time it takes to download a large video from a remote server is not compatible with Internet usage. By that I mean a video clip of a few minutes in length may take well over ten minutes to acquire using the fastest machines. Most users find this annoying and will not bother to download the file, rendering it ineffectual.
Digital Images

Once the concept and design were complete, still images had to be gathered and converted to a digital format for the project. The slides given to me by the architects were scanned using a Kodak Photo CD Imaging Workstation. These digital images were stored on a Photo CD. The benefit of using a CD to store these images is that they became portable within the lab, were of consistently high quality and available in four different sized formats ranging from 192 x 128 pixels to 3072 x 2048 pixels.

The majority of the graphical images were created in Adobe Photoshop. It is a powerful and sophisticated program which allows the user to manipulate and create digital images. Photoshop also allows one the option of saving the images in many formats, including both JPEG and GIF, which are the options Netscape accepts for inline images. Of these, JPEG is best suited for still images with continuously varying tones. I used it for the slide images and found that the results produced were sharper, clearer and smaller in file size than with GIF format.

An exception to this is the Netscape limitation that inline images which are also used as maps, or Imagemaps, must be in GIF format. Briefly, Imagemaps are a server-side extension which allow a user to click on a specific area of a picture on a browser where a hidden hyperlink is contained. This link, not unlike the hidden buttons in Hypercard, allows the designer to incorporate complex images with multiple links.

The final stage in the production was testing the HTML documents in the browser and across the network. The files were placed on the server and then the URL (universal resource locator) for the “Women in Architecture” homepage was called up. During the production stage I was often able to test the links and layout, and make necessary adjustments and corrections, by calling up the file locally with a function in the Netscape browser. This means of testing all links except the imagemaps saved valuable time by eliminating file transfer between the server and the computer where my working files were stored.
Design

FORM FOLLOWS FUNCTION
and does not exclude design!

This section describes how the overall design was achieved through a process that aimed to synthesize the media with the technology currently available on the WorldWideWeb. The design of the information stemmed from its organization and structure. The project aims to be coherent in layout and navigation, pleasing to the eye and flexible in its extensibility.

Once all the images were scanned and the video edits complete, the most important task at hand was to complete the design of the document; however, the information needed to be organized before I could design the project. While there were adjustments made on a small scale, most of the hierarchy remained constant after the initial layout was decided. While the WWW enables many people to access a plethora of information at any time of the day, it also has drawbacks from a graphic design point of view; there are limits to the design of the page layout and this asks for innovative solutions.

The choice of color is an important element in the overall design. In some ways the choices started with a process of elimination. I initially considered using "transparent" GIFs to position and contrast page elements. With GIF, the images became blurry and flattened because colors are converted to an 8-bit color map during the compression; the images culled from video and slides were noticeably degraded. When this option was eliminated, I chose to
embed the background color of the documents in the HTML; this feature is available in Netscape 1.1 and later versions only.

This choice gave me a certain degree of freedom in the production and layout. I was able to seamlessly insert JPEG images matted on black. The black background provided a dramatic backdrop for the text and graphics. I choose strong and semi-vibrant colors to enhance the look of the documents. I chose colors that were strong and full of life and that were complementary. Each woman has a color and small emblem with her initials in it so that the viewer associates this color with the subject. This emblem becomes her button and consistently links to her pages.

Some of the design was done on paper as rough sketches that also took into account the structure of the document's information flow as its complexity grew with the amount of information. Of the schematic sketches that exist, three will be used in this section to illustrate the transformation of the project over time. Figure 2 describes how the quantity of information was organized based on the elements that were available from the production work, i.e., video, still images, text.

Figure 2. Diagram sketch of page flow. Describes a lower level of organization within the major hierarchy.
Each of the elements needed to have meaning and possibly link to other pages. At this phase the graphical elements were developed as well as the HTML documents. Being able to control certain elements in the browser output, such as the use of special colors and placement of the images, permitted me to create a dramatic display of information. Figure 3 describes an initial attempt to organize the flow of information visually.

Figure 3. Visual display design sketch. Illustrates how the individual pieces will become design elements and hyperlinks.
Each of the subjects needed to have an initial screen with links to the interview, biographical information and to a few projects. The interview information then had to be displayed in a form that could be glanced at and easily understood. A topic of interest could be selected from this display. The image below describes the flow of information from 1. the architect’s “homepage”; 2. the interview topics page; 3. the individual interview topic, which includes a downloadable video clip.

Figure 4. Interview Layout and Links
Sketch of interview pages and links to responses.
The hierarchy of information flow is based upon a method of repetition. The links between pages had to function consistently; the user should be able to navigate easily through the information. I wanted to be able to present a variable amount of information without overpowering the viewer with a list of images or purely functional text that only indicated transitional links. Of course, some functional text links had to be made and some functional button-like links are incorporated in this project. The solution to this problem was in making re-usable symbols to represent each architect and using them consistently throughout the project. Briefly described, the color of the body text is spring green, the header texts vary for each architect: Ellen’s is purple-blue, Andrea’s goldenrod yellow and Jane’s scarlet red. All of the text and images were displayed against a black background. The following image shows the initial screen document. Here each architect’s photo and name appears within the visual link to her “homepage”.

Figure 5. Initial screen in Netscape
Colors and images invite user to click on an image link.
Included are several examples of screen captures that depict the browser documents and illustrate the continuity of the layout for each subject. The initial screen links to another document with a collage of the architect's work and a photo of the architect. The images in the collage are links to the interview and the individual projects. The viewer simply clicks on one of the items to move to the next level. Figure 6. is a snapshot of Ellen Dunham-Jones' homepage. Here, Ellen's photo in the center links to her interview and the slides of her projects link to an electronic portfolio of her work. That is, the inline GIF is implemented as an image map with one link per slide. From the collage the viewer may return to the initial screen directory or move to another level of the individual's directory.

Figure 6. Ellen Dunham-Jones "homepage"
Each item links to another document. Header is return to project homepage
Figure 7 is an example of the interview section. Several of the questions from the interview are displayed along with digital images taken from the video tape. The viewer has only to choose a subject of interest and click on the corresponding image.

Figure 7. E. Dunham-Jones interview page
Each picture is a link to another document containing a response.
The response to the query is a document that contains a text portion of the interview and in most cases a link to a video file which can be downloaded and viewed through a helper application that is invoked via Netscape. The video files are on the average twenty seconds long. The intent was to provide an introductory statement by the architect from which the text response would follow. These are edited pieces of the transcribed audio file. An example (Figure 8) of this document illustrates the layout which includes links to the initial project screen (Figure 5), as well as Ms. Dunham-Jones' initial page (Figure 6). The link at the bottom of the page, "More Info" connects to a biographical data page.

Figure 8. E. Dunham-Jones interview response document
The photo is a link to a video clip of the interview session.
Alternately, if the user would rather see a sample of Ellen's work, he or she need only return to the collage page and click on one of the images of her work. The server would respond with an appropriate document that contains multiple images describing the selected project (Figure 9). Each one of these photographs contains a link to an identical larger formatted version of the image.

Figure 9. Collage of one of Dunham-Jones' projects. It acts as an on-line portfolio with links to larger scale images.
Observations and Conclusions

The goal of this project was to create portraits of women architects from information primarily gathered through video interviews and to incorporate the data collected into a multimedia format. The use of HTML, through the WorldWideWeb technology enabled me to fashion the information in a pleasing, easy to use and widely accessible format. The end product portrays the architects with text, video and still images of their work. My intent was to create a history of the women that would tell itself through their stories. The user may interact with these according to his or her own interests.

There are several pieces that I worked hard to achieve given the limits of the technology. These pieces are evident in the design of the document. The color and layout are coherent and this provides the end user with a pleasing document to use. The navigation is clear; the user will not get lost in the document. This was achieved through the creation of a structural hierarchy of information and the use of repetitive links. I also struggled with HTML trying to control the appearance of the user interface from a language that does not address page layout in the traditional sense. Within Netscape, the ability to change font and page size does not insure that the design will hold its layout over a range of shapes. This is in marked contrast to traditional fixed media. A further complication in this is that the inline images are not re-sized with the window, causing problems with positioning and aspect ratios. I made heavy use of centered images to ameliorate this effect; but ultimately these kind of presentation issues must be addressed as
HTML evolves. Though the state of Web tools also appears to lag Web technology, its evolution seems imminent. For example, I used Netscape as a browser and SimpleText as an editor since there was no convenient product to integrate browsing and editing functions. Similarly, Web browsers and servers are separated for development. Features such as Imagemaps are best configured with public domain tools that can be found at various sites on the Web; but these also present a risk in their reliability since they are new tools and may still contain bugs.

While this project incorporates quite a lot of data, it is in no way comprehensive. Several features could be added to the project. A few are: a timeline or multiple, parallel timelines with pictures of the subjects and other important events noted; the use of audio files to supplement the video; additional text files for those with published articles—some of the design for this has been completed; text descriptions added to the projects; women’s resources links including information from the AIA.
Appendix A
ADDITIONAL QUESTIONS

PATH: Interest, Choice and Support

What was your route to becoming an architect? What interested you?
Where did your encouragement come from?
Who were your mentors? Or who did you try to emulate?
What obstacles were you aware of while growing-up, while in school and at work? What can you see in retrospect?

PRACTICE

Please talk about your approach to design.
How do your aspirations compare with practice?
What compromises do or did you make to work in architecture or to forge ahead in your career?
Do you perceive yourself as a role model?
Do you see gender as playing a role in your approach to design, to working in architecture?

Do you have a favorite work of your own?

Whose work do you appreciate?

Do you have objectives or goals that you hope to accomplish in your career?

What do you consider to be one(some) of your major accomplishments?

Do you think women are better suited to certain types of design? (E. Raymond’s quote “Women have instincts about houses and how to live in them,...they can do better houses than men.”)

What are your feelings about the use of computers in architecture?

What do you think about the architect’s role in “community”—making or safeguarding of it? And vis-a-vis computers in the workspace and computers used for design when people are inside these spaces not just looking at them on paper or screen?

GENERIC

What are the responsibilities of your position?

What types of problems do you address?

What skills, experience, education and personal strengths are needed to succeed in your position?

Which did you develop along the way?

What do you like the most about your profession?

What do you like the least?

What motivations does your job satisfy?

What reward does your work offer?

What percentage of your time do you spend with the other architects on your staff?

What are the lifestyle implications of your profession and your position?

Do you see your work environment as something you’ve personally created or more the product of a pre-existing system? Could you describe this? Do you see it changing? If so, how do you see it changing? What are the implications?
Transcript of Interview with Ellen Dunham-Jones

How and when did you become interested in architecture?

In high school, pretty standard. I liked art, and I was good at math. I didn’t especially like math, but I did well in that, and it came pretty easily. And I loved to draw, and I wasn’t especially good at it, but I liked it, so that at one point one of my friends who was similar, she actually hit on the idea of architecture, and I sort of thought, “Yeah, that’s cool,” it sort of blends the two. I didn’t know, I don’t have any relatives, I really had no mentors, but I was at least thinking that, and when I applied to schools, two of the schools I applied to specifically applied to architecture programs, and then in the end I wound up, I went to Princeton; architecture was simply one of the things you could major in.

The first semester I took the Intro 101 course with Dean Geddes, and he talked about being able to read a building and really explaining a way of, for those of us who had, didn’t really have any kind of art, real art background, to take people who were sort of more literate and explain a way of looking at the built environment and reading buildings, being able to understand from the outside of a building what kinds of spaces were going to be inside it. Reading buildings in all sorts of different ways, and I was, I was hooked, I just found that pretty fascinating, and so pretty much, Princeton had all sorts of distribution requirements, and I fought them all the way. If I had to take a soc. course I took urban sociology. I focused a lot and haven’t deviated from it much yet. I’m actually terrible at Trivial Pursuits, I’m really a pretty ...

Did your parents or family encourage your education? How?

My father’s an educator, my mother was a housewife, likes history. No, they to this day, I grew up in Princeton, went to Princeton, both undergrad and grad. My family was right there. My parents came into the architecture studios once when I was an undergrad, because they’d been just to a cocktail party like practically across the street, and the minute I tried to show them what was on my desk, it was like “Oh, we’ve got to go…” No, there’re really no family, no one in my family, my mother’s side of the family are fairly artistic and witty, a couple of uncles in advertising, and sort of creative people, but no one really in, architecture just was something I found through school basically.

Well, a combination of things. Actually, my father was Director of Admissions at Princeton in the early sixties. He didn’t let me in, but I’m sure it didn’t hurt at the same time. But he offered me, that he would give me two years’ tuition if I would become an electrician or a plumber instead of going to college, which was basically his way of sort of testing how my resolve, he really at a certain level he was proud that I’d gotten in but at the same time he really didn’t, I don’t think, he didn’t think that it was worth it to send a daughter, to pay for a daughter to go to a very expensive Ivy League school. He also sort of tried to talk me into going to a state school for two years and then if I was still interested try to transfer and stuff. I finally, but he said
ultimately, "If you are just sure that you want to go, fine," but he didn’t think I was really a very serious student, and I don’t think I really was that serious a student.

I was a good student, but I wasn’t serious especially. The architecture thing clicked, and I did well, and I remember at one point, my father met the dean of the school at a cocktail party around town or something around town, and the dean knew who I was and spoke highly of me, and my dad was suddenly convinced that Princeton had turned me into a serious student. And so from then on my sister, my younger sister, my little brother, they had to go to Princeton, they had no choice. So I kind of was actually, I had to buck the system a lot

And my grandmother especially, who I loved dearly but at the same time her reaction was, you know, first for an undergrad she was, “Yeah, what’s the ratio of men to women at Princeton?” and I’d say “Oh, it’s getting better all the time.” I think it was 7 to 1 before I came in, it was already down to 3 to 1 when I started, and they were talking about getting it down to 2 to 1 by the time I got out, and my grandmother’s reaction was “All those women out, stealing men’s jobs,” and then when it came to graduate school she thought I was very, very selfish. Why did I want to go to graduate school when I was my age, you know, when she was my age she had already had two children and was volunteering in the community. And she, in essence though, I kind of always had to deal with that, but she’s always been someone to bait people, but I think in a large respect actually it sort of furthered my resolve. If somebody tells me that I shouldn’t be doing or I can’t do something because I’m a woman, I will, “Oh, yeah? I’ll show you.” So if anything, I think it actually, it probably worked more to my favor, because they never, my family certainly never really discouraged me or, I always knew that I had a cushion to fall back on, I always knew that I had a very supporting family behind me, but they certainly questioned why I was doing what I was doing.

Well, my grandmother basically, finally did reconcile that it was okay for me to go to Princeton as long as I was looking for a rich Princeton husband. That to her justified my going to an expensive school, if it was an investment, you know, essentially, in a husband. No, she didn’t understand why I would want a career. But my parents were much more sort of understanding. I think they’re beginning, they wondered a little bit as to why there are no grandchildren, but they’re very supportive. They recognize that I’m doing something that I seem to be pretty suited for.

I had one professor who out and out told me women didn’t belong in architecture studios. He was very bitter from the day that, he was a much older professor, he was very bitter that Princeton had gone coed, and he out and out told me, and he screwed me on a grade. I mean I had gotten A’s on every single project, and I suddenly get a B+, and I went to him and said “Excuse me, but how did this add up?” And he says, “You got a B+. Be satisfied.” And I looked into it, and he had never ever given any woman higher than a B+. So in his eyes I had done very well. And I then brought it to the attention of the director of the undergrad program, whoever, who simply said “Look,
I've got you next semester. I'll try to make up for it, but there are certain minds you can't change, and it's not worth fighting the battle." And at a certain, that was, I wasn't happy, obviously, with that, but I think it just, if anything it just sort of taught me that yes, there are different generations, and you deal with different generations differently.

I keep feeling that I'm constantly learning new things about, I feel nowadays that actually since I've been teaching, the older, oldest kind of generation tend to be people who you need to prove yourself a little bit, but once you do, they're perfectly fine about it, and that if anything now, where I feel, I think there's more tension between men and women in general, especially in academia, actually I think a lot of men who feel that somehow affirmative action is working against them, and that on the one hand they know that there are good reasons for affirmative action and, push come to shove, yes they would support it, but at the same time they can't help but harbor some feelings of resentment, and I don't, I sympathize with them as well, but I think that in fact that's where I find it's actually the generation that is either the same as mine or even slightly ahead who often look at women and minority and are somewhat suspicious, who sort of feel like "You got a helping hand, nobody's giving me a helping hand," and don't recognize in fact a lot of helping hands that they may have that weren't as official as what women are benefitting from, but, I don't know, generations, I think there are obstacles, they're societal, that are generational, and one learns how to deal with them, and that's life.

Who were (are) your role models?

Well, I think, the first question about mentors is a much less loaded one. I'll take that one first. At the time I was at Princeton, Michael Graves was definitely the sort of guru of Princeton, and I always thought that he seems to have a really interesting life. Here was someone who on the one hand was teaching and was very well respected and always seemed to be. was a very good teacher, always seemed to be interested and interesting. And at the same time was getting, I was there, sort of, while, when he went from basically sort of doing cubist kitchens to starting to get some really big buildings, and as a, I really found that as a person I didn't always get along with him all that well, it was not easy, we never had an easy sort of friendly relationship. And there was mutual respect but, as a person he wasn't a mentor, but I thought the idea of someone who was teaching and had a practice, boy, that just seemed like such an interesting way to lead a life. And I think that had, is very much part of what attracted me to teaching.

The, I had never had, I had some women faculty who were teaching assistants, and there was a woman, Para(?) Goldman, who taught at Princeton for a while while I was there, Judy Wallen(?) did a guest studio, a guest seminar that I took while I was there, but I virtually had no, there were no full-time female faculty, really, while I was there, and for that, just never was an issue, being able to have a female architect as a mentor, I didn't know anyone. But I didn't feel that it was really a problem for me to have men who were mentors. It never really bothered me.

What has somewhat happened since, I think, in my career, is that I've found that what I, I think I have a pretty
I wasn’t really that sure that I wanted it. But I talked to the chairman, talked to the dean, you know, look, should I go for this? I would rather not go for it and just simply leave and look for another job now than go for it and fail. And both the chairman and the dean basically laughed at me. The dean especially had been a real supporter of mine, and he said “Of course you’re going to get it. What are you worried about? Of course, of course, of course.” So I sort of figured, oh, well, why not, they’re certainly giving me the go-ahead. So I went for it, and I didn’t get it.

There were three of us up that year from architecture, it was right in the middle, Virginia had the worst budget cut of any state in education of every, it was number one out of all 50 states in budget cuts in education. There was a faculty freeze, there’s all sorts of explanations, none of which are legally allowed to be considered in a tenure case, but in practical reality do. And to what degree, my partner who I’d been working with was male, he and I had some joint projects, we were both up for tenure at the same time, he also did not get it, which since, I’ve ended up at MIT, he’s ended up at Harvard, I think we’ve done just fine.

But my sense was that at, to a certain degree doing shared work, a man and a woman working together, being reviewed by an all-male committee, I don’t think that I was really ever given much credit by that committee for my share of the work. I think that there really was just sort of an attitude that was built in. You have a group of men on that committee who all have wives who are their helpers and really are following that very traditional, more traditional kind of a family structure. And I don’t think that they
really were at all used to, I was the first woman ever up for tenure in the architecture department. The entire school of architecture had just the year before tenured the first woman ever that they had ever tenured, in planning. The school was not, the tenured faculty were not used to having women as peers. And I don’t think that they, any of them deliberately in their head ever thought, “Oh, Ellen’s a woman. We certainly don’t want to tenure her.” But I think that at a much much more subconscious kind of a level, I do think that there was an attitude of just not quite taking me seriously.

They were, they were supposed to write me a letter. They never wrote me a letter. They couldn’t explain why I didn’t get it. I could have, I tried to force the issue a few times, I never got a letter. I got a verbal discussion where, the one thing they mentioned was my age. I would have been an extremely expensive tenure, because I would have been tenured at that point at age 33, which would mean that I would have been a full-time, but my pension, my, they’re making an over 30-year investment in me if they tenure me. Now, that of course is also legally not allowed to be considered in a tenure case, but it was mentioned to me that that was, and I kind of, I said “Wait a minute... my age?” And, oh, rrww rrww rrww... But that was one of the first things that was mentioned. So I think there’s a lot of different things that they, there was also some internal politics about people on the committee who really, the representatives from architecture on the committee who didn’t talk to each other ever. And so probably together weren’t making the best case, but, you know, I can speculate endlessly. I wish that they had written me a letter, which had really simply told me. I even then asked them, simply in terms of what should I work on for my next job, what should I work on, for my next job.

They never told me anything. And so I’m kind of left in a position where I can only speculate, and because I can only speculate it’s easy to speculate the worst. They did then the following, two years after then, the chairman’s wife was tenured, and I really shouldn’t be saying this on tape, but she does not have a master’s degree, had published one article, I had 11 published articles at that time, and we co-taught a course together, and you know, one can speculate all you want as far as what was kind of being set up or not, but...Academia, I don’t know, I think academia is and tenure cases are really pretty inexplicable things, and men are victims just as much as women are. I really don’t think that it’s easy to draw any kind of conclusions. It wasn’t fun.

Well, when word went out that there was a woman with a publishing record and seven years experience, I actually had, chairmen were calling me up from schools that I had not applied to asking me to apply. I had no, I had five offers from different schools, and that, at a certain point that’s gratifying, and on the other hand it basically says, means that a lot of schools are looking for people who pee sitting down. And that’s not the only requirement for the job, by any means, but we are in a strange time where being a woman can hurt you, being a woman can help you. But I think there’s a real, I am concerned and was concerned when I was getting all these offers and I knew plenty of other people who were not getting any offers. And I think a lot of it did have to do, I hope some of it had to do with
my work, a lot of it did have to do with my gender.

And the problem there is I think that if you’re hired for that reason and not because a school is genuinely interested in your work, come tenure time, come promotion, whatever, all you are is a person who pees sitting down. They can get another one. There’s really no, you know, you’re being hired because you have the right credentials but they’re not really that interested in your work, and they’re not going to be making a really full term commitment. And I found that there some schools that I interviewed at where that was really clear, where they weren’t even really asking me about my research, and that’s again just really a product of the times we live in. There’s tremendous pressures on the schools, for a good reason, to try to bring in more women faculty, and I’m benefitting from it now, and if it, if the experience with UVA had, if my not getting tenure had to do with my gender, then okay, there it worked against me. Who can tell?

I think almost all the schools now are very much aware. I mean, I really do think all schools now feel a compunction, and that’s where all of these questions, though, does it then become reverse discrimination, you know, does it mean that you are forever...I will have to forever wonder whether they hired me more, would they still have hired me with the exact same resume except that if I’d been male. I know that MIT absolutely was going to hire women, there was no question the year that I came in. So does that mean, you know, do I still, would I live up to neutral, to gender-blind credentials, am I somehow, do I have to sort of wrestle with doubt that I’m not really up to the standards or any of that. To a certain point you can spend your life doubting things, and, I, as I go about my work, but the situation, I have very mixed feelings about all sorts of, all kinds of affirmative action programs. I really, they are there for all of the right reasons, they do have consequences that work against the very people they’re trying to help and work against a lot of people who have no reason for it to work against them.

What do you hope to accomplish in your career?

Oh, I think that there are at least two ways to kind of answer that, I mean, one is the sort of beauty pageant question, “I just want to make sure that all the children have a place in a peaceful, in a peaceful world, with full bellies.” I do have ideals of trying to change the world somewhat, you know, make something of a difference through teaching and certainly through, in through practicing. I mean, I teach and I do have a small practice and keep worrying that the IRS is going to consider it a hobby if I don’t get more stuff built, but it’s pretty hard to get commissions and teach full time. So that there’s sort of the general, I do feel that I am, I can help make ideas understandable, and I can certainly, I think, help students to fall in love with what is unfortunately a worse and worse profession to get involved with. But I think there’s the other sort of, I have always felt that, I mean, education is something that I am very interested in and I do feel I’m good at, and I enjoy working, I love nothing more than giving a really good lecture and the feeling of sort of satisfaction of knowing and seeing that the audience was absolutely there with me and appreciating it. Or giving a, just sitting down
with one student at a desk and having a really great desk crit where there’s interaction back and forth.

But I also, I mean I got into architecture through a love of buildings and a love of spaces and of making things. I have built a few things. I very much want to build more. I feel very conflicted between trying to teach, write, and build, especially, I think, there’s so much luck involved in getting commissions and actually being able to get things built. So that I feel that I can probably make more of a contribution to architecture through writing and teaching at this point than I really feel that I can through doing, you know, kitchen renovations. I do, I try to enter at least one competition a year for something a little larger than a kitchen renovation, and that does help kind of at least keep me at the drawing board, keep my designing some from time to time, but I’m focusing more on writing.

I really do feel that with the commitment of teaching I don’t see myself being able to really pursue a practice full time and do that, so that where and how and when I kind of, you know, feel right now, well if I get this book done, then maybe I will dive into practice in a much bigger way. I’ve done some work, pro bono work, consulting with state engineers, again with a partner down in Virginia we designed a seven-lane highway bridge that got built and got an AIA award. I would love to do more things like that, really, getting more, I think there’s the academic side of me that come up with all the sort of theoretical, the theoretical sort of reasons why I love architecture and all the good things I want to do with it, and then there’s just that sensuous part of the brain that just loves a beautifully designed thing whatever that thing is, and my goal is certainly to make more of those, but between money and time, the general limitations, it’s pretty tough.

I have certainly had students who have told me that they have really appreciated just sort of seeing a, having a woman faculty member around, (a) who they can talk to, particularly, I mean one issue that I just, nothing infuriates me more than sort of the whole attitude and/or subject of faculty sleeping with students, and I’ve often found that the women students really like there being a woman faculty member because there’s at least someone who they can perhaps complain to if they need to. And that has on occasion people have come in with concerns, but that does, is sort of a side issue.

I think I have, I think I’ve shown students that this is a field, obviously, that women can get into. I wish that I was building more and, I mean I feel the longer I teach the more sort of dysfunctional I become as far as working in an office. I mean, all of us who are teaching really have left the world of full time practice. Some people are balancing it perhaps more, but it, at a certain level I don’t feel like I can, I don’t think as a teacher, a teacher shouldn’t be a role model. I think the role models should be the people who are really out there practicing, and if I’m a role model I hope it’s just I’m a role model of a person who is a fair, hopefully articulate on occasion, kind of person, but I really want to see my students go out and build, and I’d like them to be building more than I am. So I’m not sure just how, how much I should really be a role model. I would hope I’m at least an encouragement, that students certainly do feel this
is a profession that women can get involved with, that women don’t have to somehow really totally try to play by men’s rules necessarily or ..

I would hope that I’m as much of a role model to them, male students, as far as just, as a person, and I hope I’m certainly teaching them just as well, and I think so. I don’t think that I’ve ever especially been more, been closer to more women students than men students or anything, I really don’t think so. So, it’s really I think the, it’s impor-, I do feel this point of trying to, that the role models should be the people out there at practice. The point isn’t trying to train a generation to go out and teach. The point is really to train a generation to go out there and build and make a better world. So, if I can help point them to some really good role models, that’s important.

And I think there are certain things that, I mean the myth of the master architects who makes every single decision, the Frank Lloyd Wright sort of, not influenced by anyone else, so he would claim, some of those myths are finally being put to rest, and there’s a lot more respect for collaboration and understanding of the degree to which building a building is definitely a team effort.

Do you perceive differences in the profession today compared to when you first began your career? What are they? With other professionals (contractors, developers, etc.)?

There is this sort of thing, I mean lots of people also have assumed that somehow Jude and I are married. Jude LeBlanc is my partner, Philip Jones is my husband. Jude, Phil, and I are perfectly comfortable with that and know exactly what that means, but people do assume, they see a man and a woman practicing together, and Jude and I are virtually the same age, and a lot of people assume that we’re married, because there are so many, a lot of, most, I don’t know, I would probably say most women architects whose name is on the stationery is on the stationery as a pair with a husband more often than not. But, yeah, there is still, I think, a lot of people just sort of thinking that that’s how things are working.

And not, I don’t think people are always not giving credit, but I mean, to me, the absolute most horrific recent example of that was the awarding of the Pritzker Prize to Robert Venturi alone, after 25 years of collaboration with Denise Scott Brown, that to me, and the Pritzker Prize has been awarded to a group before, it’s not always just awarded to one individual. But that to me was such a blatant kind of case of, our culture does tend to think that, specially if it’s husbands and wives together, the husband will tend to be the name that will be said first, that will be given more recognition, the wife will be assumed to be that much more of the helper, and I think it still, just that attitude to some
degree crosses over whenever a man and a woman are working together.

I mean, that they said that the studies of children in classrooms from age, you know, through first grade, certainly through fifth grade, boys tend to be very active, they're a little more antsy, girls will tend to sort of sit quietly that much more, and as a result the teachers really want to reward if the boys are paying attention, if the boy raises his, the girls will tend to raise their hands to every question, but the boy will only raise his hand to one out of three times. Every time the boy does raise his hand, the teacher's going to call on him. There's a lot of that kind of, you know, just from very early ages I think, attitude of wanting, of society just sort of working that way. I think Denise Scott Brown has put it very well, just sort of her feelings about the Pritzker Prizes, that as long as we live in a culture where girls are brought up to be daddy's little girl and it's not daddy's fault, it's not the girl's fault, you know, it's not like there's a conspiracy of the men against the women, but as long as we're sort of brought up with certain general cultural behaviors engrained in us, that all of us are somewhat caught in that.

It's sad to see the profession...I mean it's one thing when clients would still, would sort of perhaps not understand the relationship that she and Bob Venturi have, but that our profession would not yet have recognized, I found really disappointing. It's an international prize, and maybe internationally the status of women in architecture is still further behind than it is in this country. I don't really know.

But I think all of these are, these are things that are not insurmountable. They're things one has to work with. And I do certainly try in my classes to make sure that I'm not being unfair in either direction. I really think that I treat men and women identically. I don't know if the students feel that way or not, but it doesn't really cross my mind to really think about it much. One studio, I had one, my very first semester teaching, I had a studio of twelve boys and one girl, and she had a hard time. It was a frat mentality, and you couldn't help but be very conscious of sort of whether or not, when I made up the list of the presentation of the order of final reviews, I mean I, you couldn't help but think about, oh, and where do I put her in the order, because when it's that extreme, yes, you're conscious of it, but in general I don't think I really am very conscious of it.

What of the role of computers in the office-being used every day? changing the way people work and potentially design?

Well, I think, I share all your concerns, and I think, I don't think there's anyone who's not concerned about it. I don't think, it's still all so new, nobody really knows what the patterns are. I think there is also where there's a generational thing of, most of the people who are getting jobs as CAD operators are students, people who've got out of school but who were taught by a generation who that was never an issue, and so there is sort of again a generational difference that the schools sort of have to catch up and figure out if is that where the profession should be going and should we be training students towards really expecting that that's what the profession is about now, or should we be trying to alter the profession in some way,
you know, if as teachers we are trying to educate the next generation of architects, are we adequately dealing with how job descriptions are changing.

And I think, I tend to still be relatively optimistic. I’m not sure why, because I do think that the profession of architecture is extremely rewarding on really rare occasions. You know, when you get something done, it’s wonderful, and it can be extremely rewarding, but the amount of time and effort that goes into that, you know, there’s a lot of lag time between those, the incredibly wonderful moments. And I think that this is a profession that has just accepted all my errors as par for the course, has accepted brutal pay, brutal treatment of workers, I mean, as far as people getting stress injuries, well, people have had back problems leaning over drafting boards for years as architects. The profession has never looked into that. So I’m not optimistic about the profession especially dealing with it as a health issue. But I am optimistic that, I think in fact, I don’t see being a draftsman and being a CAD operator as necessarily all that different. I think that being a draftsman in an office is something that you sort of, you pay your dues, you do that for a number of years, and you are gradually given more and more responsibility. And I would suspect that the same thing will happen with the CAD operators.

I don’t think it, I think there is going to be something of a lag because a lot of the offices can’t afford to let the CAD operator essentially evolve yet, because it isn’t an even thing that everybody knows how to do, operate, it’s not even yet. It’s still very much like a specialty within architecture. I suspect that it’s not going to be a specialty for long. Soon all architects will have some facility with CAD, and it’s going to operate more, as far as advancement within the profession, I think CAD operators will lose from being people who are simply inputting data to becoming designers who also are using the computer to becoming people who are managing projects using the computer. I think that the sort of steps that one moves through in an office will probably not be that different from the way that they’ve been.

To the degree that the computer allows for the elimination of some of the drudgery of drafting, it’s terrific, and it can be a very empowering tool. To the degree that it is enslaving a class of very bright people to become technicians and merely inputting data, it’s ridiculous, but that’s such an obvious waste of human resources that I don’t think that condition will really last. I think it probably will for a little while while we still have a generation that don’t know how to use the computer and a generation coming in that do, and that generation may well be stuck in the position of being technicians because they’re the only people that know how to run it, but I think that more, gradually, I suspect that computers will become absolutely ubiquitous. They’re already certainly close to it. And that those kind of, yes there will be technicians, but it’ll be young people right out of school will be technicians for a while until you move sort of up through... I don’t know, have you sat down and done a set of working drawings, day after day after day... for years? It’s drudgery.

The whole question of spending the day in front of a
screen, I think, is an extremely depressing one for anyone
to spend an entire day, just day after day, solely in front of
a screen. And whether the profession is going to be able to
really deal with that and adequately, job descriptions that
somehow can balance that, I don’t know. I think there’s a
lot of interest actually in that. I think that people are
interested in how do you make that environment, given the
screen. If you accept a day in front of a screen, what’s a
more ideal environment. And you know now, with the
electronic cafes and all this sort of, I think there’s more and
more interest in trying to make liveable, very liveable, very
comfortable environments that one is also working with
the computer. I’m not all that worried about that.

I think also that the hardware is going to be designed
to make the screen more and more liveable to look at, and
to make the whole process, my guess is, you know, it’s just
amazing, a computer you bought two years ago is already
an antique, and I get the sense that what we’re working
with now is going to look really archaic, obviously certainly
in ten years, and I would certainly hope that if the overriding
ethos constantly is that we get, we keep tinkering with
these machines so as to somehow reduce drudgery that
hopefully that will happen in architecture as well. I’m not
unoptimistic about that, actually. I do think, I mean, it is
depressing, I feel that the day graduation comes, and you
know, you wonderful student who’s doing great work, and
suddenly it seems hypocritical to say “Congratulations!
Now you get to go out and basically do some not necessarily
very stimulating work in an office for a while.”

Whether that’s going to change, whether we will get to
the point where computers will make building buildings so
much easier that yes, anyone can do it, get it really it almost
gets to that point where the whole structure of the profes-

I mean, even in terms of things, certainly my long term
goal, I mean I no longer, I think it has to do with growing up
in New Jersey. But if I could stop strip malls, I would feel
a bit, I would welcome, I bet that I would deserve sain-
thood. I mean, well, it’s just, yeah. There is so much that is
so abysmal, the loss of a sense of place, the increasing homogenization, universalization of everything around us that is divorced from anything specific in our context, the divorce from any kind of phenomenal experience, increasingly, I mean, these are real con... by the year 2050, if you and I had children, in their lifetime the population of the U.S., and the U.S. does not have the highest population growth rate by any stretch, but the population of the U.S. would be one and a half times what it is now. That’s a hell of a lot more strip malls, and that’s the direction we’re going, there’s no question. The quality of life is not, does not look like it is going to improve, and I think those are the issues, I don’t know, if computers can help us to get a better handle on sort of big problems, I’m not sure that they can, I think computers tend to be very good at working at rather small, very specific problems, so that, and my thinking tends to go more off to the big picture. I’m all for using computers as much as you can to eliminate drudgery, but to, I think there’s a lot of really much bigger problems out there, actually.

I think there are real problems of —— also the increasing division between rich and poor, the, you know, “trickle down” is just about the biggest joke on earth, if you look at the actual statistics of the rich having gotten richer, the poor having gotten poorer, certainly over the last 15 years. The, we are, and increasingly we have a rich, very wealthy, elite class who are mobile, who are dealmakers around the world with contacts around the world and using computers to do that. And completely isolating themselves from the poor, who are increasingly stuck in, are totally immobile around the country, the world. And I think a lot of these divisions are where computers at one level they can certainly help to bring people together, they can help to improve communication between people, but at the same time they are also facilitating the rich to isolate themselves more and more from the poor and to want community but a community, a self-selected community rather than working... I get a very .. for some reason I’m fixated a little on 2050. I doubt I’ll live so long, but it would be something, but ..

It’s important that people like you do work in it, who will be working at trying to see that computers are used in ways that can bring people together as opposed to just facilitating more and more isolation and more and more sort of passive, 5000 channels of video on demand, and like

I really don’t see women architects as having a role that’s any different from men architects. I don’t see, I know we spoke on the phone, and you said you could always tell when you looked at a drawing if it was done by a man or a woman. I don’t think I can, and I, I’m suspicious, I bet I could fool you. I don’t believe there really are fundamental differences other than what come in in some cases in term, from a very strong cultural background. You know, if somebody comes in motivated because of their upbringing to really work in a particular vein of doing something, but I think there are just as many men out there who are really interested in community-building as there are women. I don’t, you know, the argument that women are the natural nurturers and men are aggressive, you know, women have periods in cycle with the moon and we’re more in touch with nature and curvy lines, and men have penises and
they're more projective thinkers. That's Camille Paglia who actually said that if architecture had been left to women, we'd still be in thatched huts. Thanks, Camille. That's never quite been her agenda, but I don't buy any of those stereotypes. I feel like I know too many examples, too many counterexamples, as many counterexamples, in fact more counterexamples than examples that would fit that stereotype. But sometimes, other than Bill Clinton, I've never voted for someone who won, so I've always felt I've been out of sync with the majority, mainline thinking.

But I really, I think the issue, I would define, community is, there are different degrees and levels of community. One of, I think it's Suzanne Keller (?), the sociologist at Princeton, defines a community in terms of a level of commitment. That you can't really call the Internet a community, because you don't have a commitment to, that you will absolutely read it religiously and that you will absolutely rush out and help somebody as a result. I mean, that may not be Suzanne, but I think we live in times where absolutely all of us, and it's probably other than people who lived in a monastery, a nunnery, I mean something that is just such a defined singular community, I think all of us today live in multiple communities. And that is part of, it has advantages and disadvantages. And computers again, they kind of can help that and they, I think, I worry that if one lives in, participates in so many communities at once, can you really, are you going to really go out and pitch in for your neighbor, or if you're involved with a bulletin board group on the Internet and that satisfies your sort of social yearnings outside of your immediate friends, you sort of feel connected enough, are you going to go out and donate blood to the local blood drive, are you going to volunteer for Big Brother, I don't know. If your social, feelings of social responsibility and contact are somehow satisfied by joining a virtual community, I worry about that only to the extent that it could mean that then people aren't as committed to their actual sort of physical neighbors.

But overall, I think there's all sorts of grey, I think we live very rich lives because we're part of different communities. I think I'm part of MIT, but at the same time yes there is a, something of an immediate bond of the, some of the other women faculty in the architecture department, every now and then we will try to get together for lunch, to to be, I get together for lunch with plenty of the men faculty as well, but there is a little bit of a distance, somewhat more immediate sort of, and making that extra effort to get together as a subcommunity within, I would, at the same time I think there's a very, one could talk about a lot of different, you know, do you belong to a religious community, do you belong to your family community, your work community, where you live community. And all of those things, generally they enrich our lives. I think the price is that we don't, the bonds we make aren't as deep as, you know, it's easy to romanticize the past, but when one was more limited, but at the same time there's a lot more potential for self-expression that's very rich.

I haven't read it but,... I think it's still, we're back at the same dilemma that, certainly, has always been an especially American dilemma but it's true around the world as well, is the individual versus the community. To what degree do you value being a member of a group and
sacrificing some of your self-expression, some of your individuality, and to what degree do you value being an individual who can sort of lead a much more self-empowered life, who is not in any way restricted by the provincialism of a small-minded community. And those debates I think have always gone on, they always will go on. I think what there is more and more, this call for community, this sort of desire, I mean a lot of the rise of more and more interest in religion, more and more interest in the sort of the imagery of small towns, the popularity of a lot of new urbanism, and much of it absolutely understandable, laudable, for very good reasons, but it’s also, I think a lot of it is at a very superficial level, that in fact, Americans are not about to give up any of their individuality. They want to try to have both, and again to a certain degree I think it’s great, another level though, I think a lot of it is yuppies who want to flee any kind of responsibility to the inner city, who are moving out to edge cities and want to live in very self-enclosed enclaves where they can have a sense of community with like-minded people, and a lot of that is incredibly I think socially very understandable but also very regressive.

And I associate some of it with the same, the Rush Limbaugh outlook on life, that I think some of this pull towards community really is, it’s a double-edged sword, because I want to have a community, but it’s also very exclusive, and there is a danger in that. I don’t think all of the desire for community, I think there’s a genuine desire for more connectedness, a desire to always, for every individual to feel part of some kind of a larger whole, and religion has traditionally been a fabulous provider of that and having roots in a place and seeing the physical markers, landmarks that you’ve grown up with is certainly that.

The mobility of Americans, the typical American moves once every four years. We’ve completely lost a lot of that, and to the degree that we don’t be exclusive about how we seek community, that’s fine. It’s always, well, the zoning will always dictate that it be always like you know, like the zoned parcels of minimum two-acre lots, whatever, such that the price will be the same, such that the income levels that, you know...

I think have actually done some interesting things where they have fought a lot of the zoning laws to at least allow for the what’s often called the granny apartment above the garage, so you at least get a mix of potential renters and homeowners living in the same neighborhood, trying to at least build into the mix some degree of diversity. And I think that architects absolutely have to continue to try to do those kind of things, to try to build more options in. I mean, it’s pretty depressing, I think the condition of the elderly and the degree to which in the last, you know, fifteen years ago I don’t know that the term “retirement village” existed. Maybe it did, but twenty years ago I don’t think it did. There were convalescent homes for the elderly who really were bedridden, who really needed medical attention, but generally the elderly were able to lead their lives out until they, unless they got ill, either in their own home or with a family member, but in the suburbs? To be elderly? Forget it. If you lived in a city, I know my great-grandmother lived till 93 in an apartment in the city. She could still walk to the corner to get mark.
She could survive. She had neighbors right there. If she fell, she could scream out and someone would, would hear.

The suburban kind of lifestyle that we built up is horrendous for the price that it exacts on the elderly and forces them to move into retirement villages. It’s more of this segregation of society. We think we’ve been, that somehow we’re progressing toward a more tolerant society, well maybe in certain issues, I would hope that in civil rights, I think that we have progressed some relative to certain benchmarks, but in other ways, look at our society, we’re incredibly just isolating everybody into different pockets, and it’s how we’re building, it’s the patterns of what we’re building that is largely doing it. And a lot of it is responding to developers’ perceptions of market demand, and, you know, but it’s a chicken, there’s a lot of chicken-egg kinds of questions. Who can manage, right. And a lot of the retirement villages are modeled on little brick townhouses all in a row, really trying to basically rebuild mini-versions of cities, because that in fact is a pattern of settlement that the elderly can still get around in. But, I don’t know, suburbs and the evils of living on a fossil-fuel economy, ...

What do you consider to be some of your major accomplishments? What are you proud of?

What am I most proud of... On the one hand, I end up having to split myself into three people. In practice, working with a partner, my partner and I did two built projects in Charlottesville, the seven-lane highway bridge and also this little study for an astronomer, but it’s its own tiny little building. And I just would love, I wish it was in my back yard. I mean, I thought it was a really great little space. And I’ve done a number of house additions. But that was the first, my first free-standing building, and I’m very proud of it. It’s very beautiful, it’s a beautiful thing. And it was really wonderful that the clients, who were very, not trendy, not stylish people at all, they just sort of, they were not thinking, they were initially thinking of just sort of renovating a room in the house. At one point we suggested, as a study, their garage was falling down, and we suggested, we said, “Look, one option, it would be more expensive, but one option is that you rebuild your garage and you put the study above it and it becomes its own building.” And the astronomer loved the idea, because then it was still, he’d retire but he would still have, he’d still be going to work, even though it was just across the driveway. And so, kind of helping them find something that they weren’t thinking of, that making a suggestion and it came in, the first initial bids came in over budget, they thought about it and said, “We just want to do it. We just want to do it. We like it.” And having them be happy with it was just great.

I think in terms of, I’ve written a number of articles that, I have pretty, it’s not easy for me to write, but I have high standards, and generally if I do get something written I’m generally pretty happy with it. And I am proud of my writing. But almost I would say more than my writing is putting classes together. I don’t know, I’m a nut for bibliography, and I just, I don’t know, I don’t think I would have wanted to be a librarian, I’m not that into it, but I do love trying to amass material, and I think I’ve put together some
excellent syllabuses. I mean, it sounds like sort of a silly thing, but I think, I am very proud of my syllabi, in general I think they tend to be helpful, helpful to students, and I don’t know. I’m proud that I got this job.

I feel very privileged to be teaching at MIT. I feel proud, so proud of that. I don’t know, it’s hard to, in some ways often there are certain things that other people from outside might look at and say, you know, “Oh, that’s really wonderful, you got that award, you got this or that,” but that you don’t always, you know how much work really went into it and you don’t necessarily always think it was your best work. But the syllabi are all mine, and I think they’re good, I think I’ve taught some very good classes.
Transcript of Interview with
Jane Weinzapfel and Andrea Leers

How and when did you become interested in architecture?

Jane: I got interested in architecture at about age 14, when I realized that I like art and I like science, primarily in early high school life, and I was also the daughter of a contractor, so the idea of building and construction was known to me, something I understood, and it seemed to be a, later on it seemed to be, continue to be an interest, as I continued to be interested in art and science, and I felt as much as I love art that it wasn't somehow enough and science seemed too much or not enough either, and to me the mixture, being able to do both seemed interesting, and architecture seemed close to that. At one time I thought about industrial design, because that also seemed to have the components of art, design, and how things are made and go together and useful objects being beautiful, it was interesting for me at a certain point, and I actually started architecture school under the, with he thought that I'd become an industrial designer, but the industrial designers that I knew of had backgrounds in architecture. But then as I progressed in the study I determined that actually I was more interested in buildings. So after about one year in architecture school I was gripped more by the making of buildings than the making of toasters, and continued that way.

Andrea: I came to architecture much later than that. I probably was 20 years old before I first thought about architecture as a possible work, and I knew very little about it at that time. I had been interested in painting and the arts in general always. I had studied painting at the Museum School, where I grew up, from my preteen days right through to college, and when I got to college I thought I would continue with that. But in fact, the studio painting program, it was a liberal arts school, was not a good one at that time, and so I was directed into art history, and I enjoyed that very much, but toward the end of my college years began to think again of something more active, more actively creative. I enjoyed art history but I felt as though I didn't want to just study the work of others. I really wanted to be actively engaged in making, and I think I hit upon architecture in a very general way, did not know any architects, I didn't really know what the work of architecture was, I knew architecture through the study of art history. And it was intriguing to me, probably more as sculpture and as artistic idea than as a craft. But anyway, it was interesting to me, and I had very little picture of what it would be like to work as an architect or to study architecture. I really was quite uninformed in that way. There were no career internship programs at the time, and so what I determined to do was to just start and try it and see if I would like it, see if I had an aptitude for it, which I had no idea about, and if it interested me, and if it seemed exciting. And that's what I did, actually, I took a trial semester at MIT, in fact, starting in the midyear of the first-year program, it was kind of unusual, and I began with a real "let's see how it goes" attitude, and by the end of that semester I was very excited about it, and I thought "Yes, I can see doing this, this is interesting." So, it was really a discovery at that point, about what the learning and doing of architecture was, after a long liberal arts education and the study of arts and philosophy and so forth, so it was a
real discovery and an unfolding for me.

When did you attend architecture school?

A: Thank you, that was really nice. Before ’68, early sixties.

Were there obstacles that impinged upon your decision and education?
Did your parents or family encourage your education? How?

A: Actually it was in, I think it was 1962, that I first spoke with my dean of students, who was a wonderful woman named Teresa Fresh, an art historian of Viennese training, who knew, wonderful Old World art historian, and I went to her and said, “You know, I’m thinking about architecture,” fully expecting her to discourage me and say “Oh, no, a life in art history is a full life, my dear, and you must go on,” and she was very encouraging. She was extraordinarily encouraging, and I would say that that was the turning point for me. I also had another teacher, this was at Wellesley College, another woman who was very important in that decision for me, and that was my philosophy professor named Ingrid Stadler, and she also encouraged me. So I was being encouraged by women professors to pursue that, and it actually didn’t occur to me that it was such an odd thing, despite the fact that I knew no architects, certainly no women architects, or any architects, so it wasn’t a surprise that I wouldn’t know any women architects. And it really wasn’t until I got into school and started going at it that I began to encounter the other kinds of expectations, that it was unusual, that it was strange, that it was not to be expected. So I really didn’t encounter that until I was into it already. That was my experience.

J: I think that’s very similar. There were, when I was very young and raised the, I think with my high school counselor, that I was interested in architecture, she directed me to trigonometry courses and all level of math courses and away from languages, which I was very distressed about. But I dutifully followed her instructions. But I think an early force for kind of not being concerned about the, whether something was done or not done was earlier than that, very early, I think when I was a sophomore in high school. The, I went to a convent school, and the nun who ran the convent was our religious teacher, Sister Marianna, who was an absolute force, and she was my idol, and this was a powerhouse of a woman, and the idea that you couldn’t do anything never occurred to this woman and never occurred to me, because of that, I think I was a very useful model at a young age because I had the willingness to rebut my mother’s wishes that I become a nun or a nutritionist or a nurse. She didn’t want me to become a nun, but she thought those were really wonderful vocations, and, but I did not, and that was clear to me, it was not really an issue, and my father did not dissuade me, and so I didn’t have anyone dissuading me really along the way, although getting into an architecture school environment where you’re the only woman was quite affecting. It affected my behavior. I was seen and not heard. I thought if I didn’t make any noise no-one would know I was there. It was a very different circumstance, so I became very let’s say isolated in my architectural education. This was at a time before the pill, the schools were in loco parentis, there
was a requirement to be inside your dormitory at 10:30, there was, all of the activity in the studio seemed to start at 9:45, and so I ended up doing my projects either at night alone in the dining hall, which was spooky, it was spooky being the only person downstairs working all night, and it was, and I needed big tables and stuff, it was creepy. And I also learned to work in the studio early in the morning, when there was no one there. And I notice at MIT, going through in the morning, I saw four women in the studio, and I thought, go on, you’re right on, I understand. So there was a temporal dislocation by being a woman in the early sixties, as well as the not being noticed, that was very different than my naive expectation that I could do anything, you know, as a high school person.

A: I just want to pick up on something that Jane was saying. You know, Jane and I met, I should say, in our first job after graduating, we were baby architects together. We were, what, 25 years old? maybe younger?, and Jane had just come from Arizona and I had just finished school, and we discovered each other, which was unique enough because we were the only ones we knew, only women we knew. But we discovered we had a lot in common, and what Jane was just saying before reminded me that in our families we had a lot in common. We were the eldest child of, I had a family of three, Jane five, we were the eldest, we each had very significant, strong women teachers, who guided us, encouraged us, and supported us, women who told us anything was possible and who gave us no sense of limitation. We shared that, and we shared the sense of isolation. We both had come through school feeling like one of one or two or you know, I think maybe at any given time for us there were one or two other women in the whole architecture school, or certainly in our year. So the sense that we would actually come to an office and find one other woman was quite extraordinary. It was unexpected and our experience had always been one of great isolation. While I didn’t work in the same way Jane did, I was, you know, able to be more in the studio, because I was a graduate student by then, I wasn’t an undergraduate. It was isolating, there’s no question about it. There were none others like us. It was inventing a place for yourself and figuring out how to do it as you went along, which has been sort of the way the whole thing has been for us, actually. So the sense of being in some sense different, in some sense separate from the large group in our education, I think we shared that as well. So we were delighted to find each other when we first started to work together, and we shared a lot. We shared family experience, we shared young life, we shared... You know, we had siblings who were going through the same kinds of things. We held a similar role in our families, so that was interesting.

A: As undergraduates and high school.. Oh, the work, yeah, by then we knew we could do it, and it was just a question of (unity?) that you give to your work. I don’t even remember thinking at that point, I don’t think I ever had a thought “Why aren’t there women teachers?” It didn’t even occur to me, really. I shouldn’t say there were absolutely none, Denise Scott Brown was just starting to teach, she was a recent graduate student herself when I was at Penn, and she was giving some courses in city planning, which I didn’t actually take, she was not doing studio. She was there, I mean she was actually, there was a person
there. But in our whole schooling none of us ever saw any women faculty in studio design or structures or mechanical, you know, in any of them, except art history. So — was a male professor. I think was only in English. I mean, it may be significant in retrospect that Jane had a period in high school when she was in an all-women's school and that my college was that way too, it kind of created a mindset that if course you do this, every, we're all here doing everything, and all things are possible.

Have you experienced any obstacles in the profession of architecture related to gender? Please talk about these.

A: It was 1970 or 71 that the first meeting was held at WALAP, 70, 71, in 1970-71 Jane and I were just registered. We were working together in our first employment at Earl Feinsburg(?) and Associates after school, and Delores Hayden, who had just graduated from Harvard, gathered, created a group, Joan Spray(?), Joan Goody, Sarah Harkness, Marilyn Toby(?), a few women who were interested in creating a group and being activists, and it was called Women in Architecture, Landscape Architecture, and Planning, WALAP, and it was 1969, 70, and they sent out notices to every woman in probably Massachusetts, I think it wasn't even just Boston, in all those disciplines including all the people who were secretaries, marketing people, anybody, all the women who were involved somehow in architecture, landscape architecture, and planning, to come to a meeting at the BAC, the kickoff meeting, and a hundred women showed up, and it was breathtaking. None of us had ever seen more than one or two other women at a time in our field, and it was extraordinary. And the group was very active for perhaps five years, I want to say five years, and Jane and I were very active in it, doing all kinds of things, but we..

J: published articles..

A: ...wrote articles, we did exhibits, we agitated at the AIA to have a committee on women in architecture and considered agitating for better salaries, flexible work time. I can't even remember all the things that we did. We answered all the same questions you've asked today. And there were lots of discussions, small group discussion groups, and some older women would meet with some younger women, and those who were in practice alone and those who were working in firms, and all kinds of combinations of people met for small, a lot of support group discussions. So it was personal, it was professional, it was consciousness-raising, it was important. A lot of energy, we did a newsletter, what else did we do?

J: There was a data base..

A: We built a base of colleagues, actually, many of whom went on to be clients of ours later. That was a very important beginning in that respect. Many of whom went on to teach and then get the next generation of women teaching too, who advised each other on professional questions, resources, where to find things, so we supported one another in a lot of different ways. And so at the time was when, we were both working together, we had just gotten registered, it was 1970, that I came to the realization
that for myself the most satisfying and rewarding path would be independent practice, and it was kind of a big leap, I had a scant amount of experience, but with my former husband I decided to give it a try. We had one house commissioned, and we built a practice on that. That was the beginning in 1970, and I practiced in that form for, I think it was eight years, until 1978, by which time we had a small staff, maybe five people. We separated, and I continued doing that, growing the practice further from there for five more years, by which time there were maybe seven or eight people, something like that. And at that point, in 1982, Jane and I joined forces, and so I'll pass off to Jane to get us up to that point on her side, because she took a different route.

J: I worked in a growing architectural and planning firm that started out very small, fairly small, and grew fairly rapidly into a very interesting practice. I was interested in urban design and architecture, and the, having a synergy of planning and architecture together was very interesting and rewarding, and for ten years I was with that firm, I was an associate in that firm, and I was interested in, my goals in the latter part of being with that firm was to be a principle, and I was involved in marketing, getting work for the office, and had a wish to be able to do many kinds of projects, complicated projects, I was very interested in transportation projects, and it was quite rewarding. I learned there some of the, what I’ve called bilingual qualities of working men and women together, and had mentors in that firm that allowed me insight into the, some of the issues in men working with men. I was able to observe this, which was very interesting, a very dynamic place to work. And the, that firm subdivided, the principles divided and split, and I had loyalties in both directions and decided not to go with either of the two succeeding firms to that practice, which was for me a, it was a major change at that point, because I was quite committed to the energies of that firm, and it was suddenly very different, and I decided to take a year before I’d make a decision about what I would be doing next, and at the point where Andrea and I started discussions, we were very concerned about our friendship, which had had sustained through these years of working together, working separately, and was a primary value that we had, that we had each seen partnerships dissolve in the business sphere, and it was important to us that our friendship be sustained, and the, meanwhile we each respected the way we each worked. We shared similar outlook, I think because of having been educated in the same time period, we shared similar values that way. And we took a cautious time of working in parallel together to determine whether we wanted to work together, and we did. We found it quite rich and rewarding, and we had parallel but not identical goals that were synergistic, I think, in the way we came together, and we proceeded from there, and it seems each year is a new adventure.

A: I think our biggest fear in the beginning, being such good friends apart from endangering the friendship was that we were probably too alike, we worried, and in some respects we are. But in fact our differences, especially our different experiences and complementary strength and weaknesses actually, were greater than we realized, and so we did bring different things to working together, bigger differences than we imagined. I mean, we always saw ourselves as rather parallel, but in fact we had gained quite
different kinds of experiences on our basic shared friendship and younger life experiences, and I think that’s made for a really exciting working relationship, which has actually enlarged our friendship. It’s wonderful to work with your best friend. It’s wonderful.

J: Well, I had always learned from men. I had been educated by men. I was familiar with them. And so my, from my earliest moments of employment, even when I was in school I felt like a sponge. I mean you learn so much when you’re either in school or fresh out of school, you have everything to learn, and it’s quite exciting. I always felt fortunate that the, to be able to have a dialogue with knowledgeable people and rich human beings, so it seemed very natural to try to learn what was going on. What happened was that it was only later that I realized that some of what I was learning was patterns that were not just about architecture, not just about the ways of thinking but ways of behavior that are, were new to me, and they were not taught to me the way technical or aesthetic viewpoints were articulated. It was more by observation that things that men took for granted, never thought they would have to explicate to anyone, and which I don’t think I picked up on for some time what was going on. It was over my head, some of it that was going on, and, but as I became aware, it was a whole new world, a whole new language, a whole, and I was intrigued, am intrigued, continue to be intrigued. Men are intriguing. But small things that I think we are trained as women to expect certain behavior and take for granted certain behavior, and I think we’re in it so thick, we’re in the river swimming with the current, we’re not sure how fast the current’s going or whatever the analogy is, we’re not really aware how much of that we’re immersed in, I don’t, as subconscious.

Some examples that seem obvious to me at the moment, that men have a value of fairness and they, in a sense that, if I do you a favor, you are to recognize, to acknowledge that I did you a favor, and you’re to remember it and to do a favor back at some point. Now this is very logical, but I didn’t know this for years. I was used to saying “Thank you.” That’s done, right? And it’s, never look back kind of thing. And the same thing; do favors, never think a thing of it, never expect that someone is then looking for how they can repay that, almost like a currency, and now I can see it happening, and it’s, that’s just one example, but there are many examples that some very formal in terms of protocol, where to sit at the table, what expectations are made in many very subtle circumstances, and that’s why I call it bilingual, it’s a language men share that I am, it’s not my native tongue, and I don’t expect it to be my native tongue, but I do expect to learn some of the idioms and be aware of what’s going on. I would love it if someone attacked that as a piece of study, and I could get it more digested, not just kind of picking it up.

J: It’s, sometimes it’s not an issue at all, because this is in a dynamic social situation that we’re in, men are changing as well, so the kind of expectation of whether slang will be used or whether perfect English will be used is kind of set sometimes, I’m using those as an analogy, not really slang or really perfect English, or let’s say polite English. Sometimes has to do with the age of the men and women that are present. I mean we all do this. We know
that certain formalities are expected by older people and that a certain relaxation is expected in certain atmospheres, certain areas, people call each other by their first name, other areas titles are used, so that's just I think in every circumstance there's an assessment made of with whom am I speaking, what are they comfortable with, what am I comfortable with, and what's a kind of middle ground that we'll use here. And that's the same if it's a contractor you've not met before. That's one particular tone, there's a kind, which I would put in the camp of probably having to prove yourself over time, you know it's just going to take time there, if it's a situation where someone is new to you, you're going to have to demonstrate your capability over time. So, I think it's something we all do, and there's a broad range now, where many years ago, say 15 years ago, there was a I think less broad range. Things have gotten more informal.

A: I think for me it's been very empirical, because unlike Jane who had a longer period of time at work in an environment of many architects, mostly men, I had a very short period of time in that environment and then went immediately into an environment in which I was inventing and creating a practice and figuring out how to do things by experiment, frankly, and I had a very brief apprenticeship time. And so my form of learning about what worked and didn't was different. It was really by trying a lot of different things and seeing what was effective. So I must say I was less aware and observant about the different forms of expectation, behavior, and so forth, and my way was simply to call it as I saw it, see if that worked, if it didn't try something else. It was really trial and error.

I had no model by that point to go by, and what I did feel free to do and did a lot in those same years was ask advice of people. I, what I didn't know I was not embarrassed thankfully to ask. So where I perceived a missing piece, I had a small handful of people whom I would call up and say “How is this done? What's your advice about that? I don't understand what I need to be doing or what I'm not doing right here. Can you help me?” And what I found was that people were incredibly forthcoming, that instead of everyone being watchful of their flanks and so forth, men and women I should say, that people loved to be advisors. People really enjoyed having some information that you didn’t know or teaching you about it, so in some ways it was like a long period of being an ingenue.

It was, that was the way I learned, as opposed to being in a situation where I could observe others at work interacting. I couldn't do that. So I had to try different things, see what worked, when I felt I was missing a way of working I would call people and ask. And that was a very important part of my learning in the way that my practice grew in the early years. And then gradually things that I realized I didn't know I came to realize that maybe everybody else didn't know either. That was an interesting point. And at that point I realized okay, I must be in the stream of things, you know, doing things as they are done as best can be done. But that's been a lifelong habit with me, actually, asking advice of others. That's how I've learned most, and learning by experience and by doing, so it's really been a trial and error thing.
Now what I would say is that that way of learning has made me sometimes unaware of the different ways that women need to function to be effective than men do, because what I’m learning and observing is the way it’s usually done, which doesn’t always work for women exactly that way, because there are expectations, prejudices, and so forth that people have coming to women as professionals that they don’t have for men that are unseen. And if you don’t know them, you don’t address them, you don’t adjust your performance, behavior to take those into account, you’re not being effective. So, Well I think that, for example, for many years in the earlier years of my practice, in going to interviews for projects and so forth, I was very focused on the substance of the work at hand, the project at hand, the

A: Women clients are as diverse as men clients in their expectations, it’s hard to generalize. I think there is often though not always a kind of base understanding, because those women clients have come through much the same kinds of challenges, so there’s a kind of degree of connection there that’s a little bit different, but women clients are quite different, can be very demanding, can be uncertain of other women, just as you know we’re all uncertain of ourselves, that uncertainty can extend to other women. One of the most difficult interviews I ever had, years ago, was at Radcliffe College. I was in practice perhaps 12 years by then, and the group who was interviewing me, who I think were half and half women and men, asked me the most amazing questions. Had I actually gone into the field and done field supervision? Had I done all those drawings? And I found myself explaining, well, eight years ago I did, yes, and now there are people I work with who are assisting me and doing that. But I found myself explaining to these women, who were extraordinarily doubtful. It was a mixed group, but I think I probably went in thinking “Now this is a group that is liable to understand and be particularly inclined to accept us.” But that was surprising. So I think that in a way that was an environment in which there were a substantial number of women who were very conscious about women who work, so I think that happens.

Do you feel young women today are not as concerned about gender issues—being held back because they are women? What recommendations would you make to other women in the profession?

A: I’m not sure that that’s my experience of young women, actually, but there are a bunch of young women here who could prove me wrong, but I actually think women, young women, are quite attuned to the differences that they experience from the men that they experience. They do expect that opportunity and possibility is equal, and they should, but I think that it’s not behind us. It’s clearly not behind us, and in many many ways that becomes evident as we go along. I mean, Jane and I began at a time when we were so isolated, and it was so embryonic what we were doing, that we were almost oblivious of the difficulties of it. We just kind of went ahead. I think that today actually women are very keenly aware of some of the difficulties ahead and fully expect that they will overcome them, and that’s as it should be, but I don’t know that, I
mean I see a number of very interested, very activist women's
groups forming in schools, whose interests and concerns
are different. I think there are a number of young women
who believe very strongly that women should function
differently than men as architects, as people, that there's a
lot women have to offer that is different, but the era of just
seeking pay parity and opportunity parity is behind them
but that other issues are prominent for them. So I encour-
age that, actually. I encourage that, and I know that soon
enough women will discover that the difficulties, will find
more resourceful ways to deal with them. There's no
question but that it's not all behind us, it's not all right,
and as women come upon those times when it isn't, I think
they will find ways to deal with that creatively, and I think
it'll be different than the ways that we did. But I think
young women are really quite aware, and in many ways
that I know I wasn't, of what lies ahead and what needs to
be done.

J: Some little side issues. I think as the numbers of
women grow in the architectural profession, that there
should be an increased confidence within those women.
There are more role models, there are more women at the
table, more women to work with. I think the refinement
and confidence that goes with that, we should see groups
of. On the other hand, there's, certainly is an unexpected
hints of backlash as well that I continue to be surprised at.
Dinner conversations about the feminization of architec-
ture, bitterness of, I think social waves that occur, I think
both are happening, and one may be the result of the other,
I'm not sure. So I think it's a very interesting time for a
young woman and for women with children. The interest-
ing thing that I see that is different is men who are inter-
ested in having, are articulate about the fact that they want
to participate in rearing their families, that they want their,
want to behave in a manner where there is a realizable
equality of activities as well as expectations of a kind of civil
rights equality, but a real workaday involvement. It's quite
interesting, and this I didn't hear as much, although it was
acted upon it wasn't in the forefront, I think, of men's minds
ten years ago, in the same way, and I think that's very
encouraging, that we certainly have men with flexible
schedules here along with women with flexible schedules
in order to manage their family obligations. That's interest-
ing.

A: I just want to add one thing. Jane and I were talking
at lunch about a couple of things. One is a kind of sadness
about the fact that your questions are the same questions
that we asked 25 years ago when we started, 30 years ago
when we started. The fact that they're still being asked gave
us a degree of sadness that for all the positive and wonder-
ful qualities of our worklife, it is still true that people must
still ask these questions, and as tired as we are of answering
them, they must still be answered. And that in itself speaks
volumes, I think. The other thing that I would just add is
that, and that we were talking about at lunch, is that in 1970
these questions were a very large part of our thinking. They
occupied almost all of the realms of our thinking. They
affected us in everyday ways, they were very forefront in
our minds as issues. Today these questions occupy a very
tiny amount of our attention and thoughts. They're not
gone, they can't be, but the presence of them in our creative
lives is very small actually. And I suppose that's something
to be glad for. It's part of the fact that when you're just beginning these things are large and when you've worked a while and you have a degree of experience and confidence and pleasure in what you're doing, they matter less. They simply matter less, and you've developed ways to deal with the difficulties and enjoy the joys, and they just are very much more background issues. And, you know, you should feel encouraged, all of you, that these are not consuming things, that these things won't consume you always. And so while recognizing that while you may not think that they're issues at all now and may discover later that they are, they also won't always consume you. The presence of them as large factors in your own work satisfaction and accomplishment needn't be so large and probably will decrease. And I guess I'd like to leave on an upbeat note. I love this work. I would never do anything else, I would never do it differently, I would never discourage a woman from entering the field. I think it's wonderful, and I think there's every reason to be optimistic.

A: In my experience women students are very very strong in school, by the way. I mean it's a kind of self-selecting process. Those women who get themselves there and have, you know, they're very high quality, and I've always said that until women can afford to be as mediocre as men we won't have really made it.

J: I'm at the stage where I look for women professionals, just returning from a little flight to the Bahamas where we had a woman pilot, and I thought "Ahhh! Great!"
Appendix C

This appendix documents the HTML pages and the screen images of this project.

All illustrations by the author.
How did you first become interested in Architecture? 

What was your experience like in Architecture School?

And your early work experience?

What did the Women's Movement have on you and your colleagues?

What kinds of issues have you had to deal with in your practice?

Final Comments?
Wayne D. Leers

HOW DID YOU FIRST BECOME INTERESTED IN ARCHITECTURE?

I probably was 20 years old before I first thought about architecture as a possible work, and I knew very little about it at that time. I had been interested in painting and the arts in general always. I had studied painting at the Museum School, where I grew up, from my preteen days through to college and when I got to college I thought I would continue with that. But in fact, the studio painting program was a liberal arts school, and I had gone there at that time and I was directed into art history, and I enjoyed that very much. But toward the end of my college years, I began to think about something else, not more actively because I enjoyed art history, but in art school I didn't study the works of others. I really wanted to be actively engaged in making, and I think I hit upon architecture in a very natural way.

I did not know anything about architecture. I didn't really know what the work of architecture was. I knew architecture through the study of art history. And it was unlikely for me to go to an architectural school and say, 'Yeah, I'm interested in that.' The more I thought about it, the more I thought that it was something I could be interested in. I really was quite surprised in that way. This was no where to look at someone working on, but I was very aware that it was something that interested me. I was actively exploring it, and it seemed exciting. And then, I began to think about it. Actually, I took a studio eventually at MIT, and I began with a small scale design project. I was very aware of it, and I thought, 'Yeah, I can see doing this.' So, it was really a discovery in that point about what the
WHAT WAS YOUR EXPERIENCE LIKE IN ARCHITECTURE SCHOOL?

"We're all here doing everything, and all things are possible."

I think maybe at any given time for us there were one or two other women in the whole architecture school, or certainly...
AND YOUR EARLY WORK EXPERIENCE?

...so the sense of being in some sense different, in some sense separate from the large group in our education, we shared that as...
WHAT IMPACT DID THE WOMEN'S MOVEMENT HAVE ON YOU AND YOUR COLLEAGUES?

Jane and I were just registered. We were working together in our... None of us had ever seen more than one or two other women at a time in our field, and it was extraordinary. The group was very active for pe...

We did a newsletter. And there were lots of discussions, small group discussion groups, and s...

We built a base of colleagues, many of whom went on to be clients of ours later. That was a beginning...
WHAT KINDS OF ISSUES HAVE YOU HAD TO DEAL WITH IN YOUR PRACTICE?

One of the most difficult interviews I ever had, years ago, was at Radcliffe College. I was interviewing perhaps 10 people for a job and the group who was interviewing me, well, I think we had all had the same interviewer, and she had been doing interviews for years. The style and demeanor of her probing, it was all very similar, and I thought, boy, I didn't know how to do that. As a professional, I'm not sure how to do that. I really don't know how to do that. But the one thing that I think that is a stock group that I find particularly fascinating is the one that includes women in the structure. It was a stock group, but it's not a stock group in the same way, because it's a group that is made to understand and be particularly on the lookout for that. But then the surprising, I think that in a way that was at ease much in which there was a substantial number of women who were very concerned about opening the book, so I think that happens. Women's ideas are diverse as women. By that I mean in their expectations, if it's not as clear, then there's not as clear a sense of understanding, because those women didn't have access to much of the stock ideas of their training. So there's a kind of control over there that's not as clear. And then there's a substantial number of women who were very concerned about opening the book, so I think that happens.

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I just want to add one thing, Jane and I were talking at lunch about a couple of things... "I just want to add one thing, Jane and I were talking at lunch about a couple of things...

And that in itself speaks volumes, I think. The other thing that I would just add is that, and...

It's part of the fact that when you're just beginning these things are large and when you've worked a while...

I'd like to leave on an upbeat note. I love this work!...
Andrea P. Leers, FAIA, began architectural practice in the Boston area in 1970. In 1972 she and Jose Weinzelberg formed Leers, Weinzapfel Associates, to work on a variety of projects in the region. As principal, Ms. Leers has directed the design of a wide variety of buildings for institutional, public and commercial clients.

Her award-winning projects include:

- George Robert White Gymnasium and Teen Center, Boston, MA
  - Design Award, AIA New England Regional Council
  - Honor Award, Boston Society of Architects

- Newburyport District Courthouse, Newburyport, MA
  - Citation, Retrospective of Courthouse Design Exhibit, National Center for State Courts
  - First Design Award, Commonwealth of Massachusetts

- Registry of Motor Vehicles, Worcester, MA
  - First Design Award, Commonwealth of Massachusetts

Andrea Leers taught at Harvard University Graduate School of Design from 1975 to 1978 and in 1990. She taught at Yale University School of Architecture from 1980 to 1989. Ms. Leers has been a Visiting Professor at the University of Pennsylvania, MIT and recently at the Tokyo Institute of Technology.

Ms. Leers received her Master of Architecture degree in 1971 from the University of Pennsylvania Graduate School of Fine Arts, and in 1964, she received the Bachelor of Arts degree from Wellesley College. She is a Registered Architect in Massachusetts, Connecticut and Rhode Island with the AIA.
How did you first become interested in architecture?

What was your experience like during architecture school?

What do you hope to accomplish through your work?

What are you most proud of?

Do you see yourself as a rolemodel?
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In high school, pretty standard. I liked art, and I was good at math. I didn't s ...o I specifically applied to architecture programs. In the end I wound up, I went to... <a href="http://www.princeton.edu:80/-soa/">Princeton</a>/.
<br><br> Architecture was simply one of the things you could major in...
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What was time like at architecture school during the early '80's?

At the time I was at Princeton, Michael Graves was definitely the hot guy at Princeton, and I always thought that Princeton was a really interesting place. Here was someone who was on the one end was teaching and was very respected and always seemed to be, was a very good influence, always seemed to be interested and interesting. And in some sense, I was there where he went from basically sort of long-lasting relationship to trying to get some real big buildings. I really found that as a person I didn't always get along with him at that time, but I was very interested, very interested in my own personal relationship and there was some sort of early stage of my life that, I thought the idea was teaching, was teaching at a woman, who was teaching was not a practice bug, that just seemed like such an interesting way to live a life. And I think that is very much part of what attracted me to teaching.

I had some women faculty who were teaching assistants, and there was a woman, Para(?) Goldman, who taught at Princeton for a while while I was there. And there was a great studio, a great seminar that I took while I was there. But actually there were no female instructors while I was there. That just never occurred to me, being able to have a teacher, a professor, a mentor. But I didn't feel that it was really a problem for me to have men who were mentors. It never really bothered me.

I had one professor who out and out told me women didn't belong in architecture school. He was a much older professor. He was a very bitter that Princeton and in general, and he was out there teaching and he would say to me on a grade. He meant that Princeton had not done that in every single project. And I definitely got a B-, and I went to him and said, 'Excuse me, but how did this add up?' And he said, 'You've got a B-.' I was stunned. And I thought, 'Okay,' I thought I'm going to stick it, and I had not even given any women higher than a B- in the course I had done very well. And then I then brought it to the attention of the director of the undergraduate program, who was, I don't think I'm not sure. I've got you from six, you're taking up too fast, but there are certain things you really can't change, and it is not worth fighting the battles.' And I wasn't happy, obviously, with that, but if arguing it taught me that yes, there are different generations, and you deal with different generation differently.
DO YOU SEE YOURSELF AS A ROLE MODEL?

I think the role models should be the people who are really out there practicing, and if I'm.... I have certainly had students who have told me that they have really appreciated...

I have certainly had students who have told me that they have really appreciated seeing such good women faculty members around. They can talk to faculty. I mean, one great thing about being a faculty member is that you have the opportunity to talk to faculty members and seek advice on teaching or whatever. I've been told that the role models really like being a role model because they can talk to students and help them. Some people are teaching to help people who are in teaching. I don't think teachers should be role models.
What am I most proud of... On the one hand, I end up having to split myself into...

I've written a number of articles that it's not easy for me to write, but I have high standards, and generally if I do get something written I'm generally pretty happy with it. And I do, proud of my writing. But almost I would say more from my writings, in putting them together, it's great for bibliographies, I don't think I would have wanted to be a librarian. I'm not the kind of person that I do have trying to, apply materials. In general I think they want to be helpful, helpful to students.

I don't know, it's hard to, in some ways often there are certain things that other people from outside might look at and say, "Oh, that's really wonderful, I don't get this or that", but you know how much work really went into it and you don't necessarily always think it was your best work. But the symbols are all there and I think they're good, I think I've done some very good things.
WHAT DO YOU HOPE TO ACCOMPLISH THROUGH YOUR WORK?

I do have ideals of trying to change the world somewhat, you know, make something of a difference through teaching and certainly through in through practicing...
Assistant Professor of Architecture 
Massachusetts Institute of Technology

Dunham-Jones joins the design faculty this year after teaching at the University of Virginia since 1986. She is interested in the concepts of place and placelessness and has been studying postindustrialism and placelessness. Her works have been included in exhibitions sponsored by the American Institute of Architects, ACADIA Student School of Design, National Building Museum, and the School of Architecture at the University of Virginia.

Her works have been included in numerous publications and in exhibitions sponsored by the American Institute of Architects...
How did you first become interested in Architecture?

What was your experience like in Architecture School?

And your early work experience?

Do you see roles changing in the profession for women?
HOW DID YOU FIRST BECOME INTERESTED IN ARCHITECTURE?

I got interested in architecture at about age 14, when I realized that I enjoyed it. Later on, it... then as I progressed in the study I determined that actually I was more interested in...
What was your experience like in architecture school?

getting into an architecture school environment where you're the only woman was quite alarming. It affected my behavior. I was seen and not heard. I thought if I didn't make any noise no one would know I was there. It was a very different complexion. I became very, very shy. Related to my architectural education. This was a time before the fall. The schools were in broccoli. There was a culture that to be inside that territory as a woman. All the activity in the studio moved to after six o'clock, and so I ended up doing my projects when at night alone in the studio itself. It was creepy. It was almost being the only person doing homework working all night. And I needed big tables and stuff—it was creepy. And I also had to work in the studio earliest in the morning, when there was no one there.

And I noticed MIT going through in the morning. I saw four women in the studio, and I thought: "Or am you're right aren't you and aren't.

...getting into an architecture school environment where you're the only woman was quite alarming. And I needed big tables and stuff—it was creepy. And I also learned to work in the studio early in the morning, when there was no one there.

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getting into an architecture school environment where you're the only woman was quite alarming. And I needed big tables and stuff—it was creepy. And I also learned to work in the studio early in the morning, when there was no one there.
And your early work experience?

Well, I had always learned from men. I had been educated by men. And so my, from my earliest moments of employment, even...

What happened was that it was only later that I realized that some of what I was learning was patterns that were...

But small things that I think we are trained as women to expect...

Some examples that seem obvious to me at the moment, that men have a value of fairness and...
Do you see roles changing in the profession for women?

I think as the numbers of women grow in the architectural profession, there should be an increased confidence within the profession. There are more role models, there are more women in the field, more women to work with. I think retirement and confidence go hand in hand. On the other hand, these certainly are unexpected kinds of challenges that continue to arise, in particular, in the field of architecture, it seems to me, that I think, social issues that affect, I think both are happening, and one may be the result of the other. I'm not sure. I think it's a very interesting thing for a posing question...

The interesting thing that I see that is different is men who are interested and participating in blending their families. They want to blend in a manner where there is a sense of equality of education as well as expectation of a kind of civil rights equality. It's a real workday involvement. I think it's a little better now, in the same way, and I think that's very encouraging. We certainly have men with flexible schedules here in the office along with women with flexible schedules in order to manage their family obligations. That's interesting.

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Jane Weinzapfel, FAIA, is an architect and principal in the firm of Leers Weinzapfel Associates, Boston, Massachusetts. Her award-winning projects include:

- Massachusetts Bay Transportation Authority Operations Control Center, Boston, MA
- Citation, Progressive Architecture Awards Honor Award, Boston Society of Architects
- Grainger Observatory at Phillips Exeter Academy, Exeter, NH
- Design Award, AIA New England Regional Council
- Certificate of Merit, Boston Society of Architects
- Special Award for Urban Infrastructure, Boston Society of Architects
- Park Street Subway Station Entry and Exit Structures, Boston, MA
- Special Award for Urban Infrastructure, Boston Society of Architects
- Ms. Weinzapfel has taught architectural design at MIT's School of Architecture. She is on the Board of Directors for the Boston Society of Architects and has been a member of the Women's Transportation Seminar. She recently served on the Transportation Academy Committee for the City of Boston.
- Ms. Weinzapfel received the Bachelor of Architecture degree from the University of Arizona (1960) and is a registered architect in Massachusetts and New Hampshire, holding NCARB certification.

Ms. Weinzapfel received the Bachelor of Architecture degree from the University of Arizona ...
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This thesis project was also a study in the creation of an electronic document that would report information of interest to the discussion of gender in the professional world of architecture...
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Renovations to the School of Architecture and Planning
Cambridge, Massachusetts
Jane Weinzapfel, Principal-in-Charge

Animation of the new facilities-2mb
NORTHSIDE MIDDLE SCHOOL
Columbus, Indiana
Bartholomew Consolidated Schools Corporation
Andrea Leers, Principal-in-Charge

Andrea Leers, Principal-in-Charge
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Jane Weinzapfel, Principal-in-Charge</h3>

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Boston, MA<br>
Dunham-Jones</hr3>
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</body>
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