ORAL HISTORY OF BERTRAND GOLDBERG

Interviewed by Betty J. Blum

Complied under the auspices of the
Chicago Architects Oral History Project
Ernest R. Graham Study Center for Architectural Drawings
Department of Architecture
The Art Institute of Chicago

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PREFACE

Bertrand Goldberg is widely known as the architect who builds round buildings, but little is known about his innovative theories of space and his utopian ideas that have generated these sculptural forms. His work speaks with a vocabulary that is still unfamiliar to some and unappreciated by many. Goldberg's often repeated statement, "for the first time in the history of the world we can build whatever we can think," seems to have been the beacon guiding his career. While many projects have been fully realized, some others have been only partially implemented, but all have grown out of Goldberg's unique philosophical, aesthetic, and technological thinking.

Goldberg's cutting-edge solutions emerge from the fusion of the brilliance of his special vision and his willingness to take risks with his customized education that brought together a Beaux-Arts training with a theoretical exposure at The Cambridge School of Landscape Architecture (now Harvard University); a total-design approach at the German Bauhaus, set in the volatile social and political climate pre-World War II in Europe; and structural instruction at Armour Institute (now Illinois Institute of Technology). These and other disparate factors have been synthesized in the production of a life's work that includes commercial structures, residential structures—including mixed-use towers and communities—factory-made buildings and facilities, educational campuses, health care facilities, and furniture designs. Goldberg's award-winning Marina City instantly became, and continues to be, an emblem of the dynamism of Chicago. He has been called "the most Chicagoan of the Chicagoans" since Louis Sullivan. Goldberg's distinguished career of more than fifty years as told in his own words is an important addition to The Art Institute of Chicago's oral history program of architecture in Chicago.

Between February 12 and April 17, 1992, Goldberg and I met in his home in Chicago to record his recollections. Our sessions were taped on twelve ninety-minute cassettes that have been transcribed, edited, and reviewed to maintain the tone, spirit, and flow of the narrative. Goldberg has been widely published in English and foreign language journals throughout his career, among which is a comprehensive book with an extensive bibliography (*Bertrand Goldberg: On the City*, 1985) published in connection with a

retrospective exhibition of fifty years of his work at the Paris Art Center. References that I found especially helpful in preparation of this document are attached. This oral history is available for study in the Ryerson and Burnham Libraries at The Art Institute of Chicago.

Although Goldberg continues to maintain a demanding work schedule, he graciously made time to share his first-hand memories with me. For an articulate and thoughtful presentation of his interesting ideas and experiences, for his patience and candor in response to questions, I sincerely thank him, as will scholars in years to come. I am grateful to his wife Nancy who cooperatively made her study and desk available for each of our recording sessions. Special thanks go to the Graham Foundation for Advanced Study in the Fine Arts for funding Bertrand Goldberg's oral history and for their ongoing support for our effort to document Chicago's recent architectural past. To Gail Schenning of Tape Writer, Inc., for her skillful transcribing, and to Susan Parmentier, whose thoughtful and careful editing helped shape the final form of this document.

Betty J. Blum
July 1992

The above preface remains unchanged since it was written more than nine years ago but inevitably the intervening decade has brought change. Bertrand Goldberg died on October 8, 1997, and electronic communication has vastly increased in importance as a method by which information is transmitted. In 2000 the Illinois Humanities Council awarded a grant to the Department of Architecture to scan, reformat, and make this entire text available on The Art Institute of Chicago's website. We are grateful to them for this opportunity to make this document available for research worldwide. Annemarie van Roessel deserves our thanks for her masterful handling of the process.

Betty J. Blum
November 2001

Bertrand Goldberg

Blum: Today is February 12, 1992, and I'm with Bertrand Goldberg in his home in Chicago. You were born in 1913 in Chicago and you are unique among Chicago architects. A colleague described you as "a comprehensive, anticipatory, design scientist," meaning you are concerned about the moral as well as the technological implications of what you build. In reading over all of the material that I gathered, your individualism was really apparent in your training. Your training, or your education, was a very special mix of Harvard, the Bauhaus in Germany, Armour Institute and tutorial. You began your career after a few ingenious prefab projects. Your name became a household word with Marina City, a building that has come to symbolize Chicago to the world. That was followed by the Hilliard Center, which was a singular success among Chicago Housing Authority projects. Your many medical facilities proposed an innovative reorganization for health care, and River City was conceived with the hope of revitalizing an unhealthy section of the city. Throughout your career, you have pushed the existing boundaries of design and engineering as you sought architectural solutions to improve social conditions for people. If we can, I would like you to begin at the beginning and talk about how all of this took shape. Did your father or your mother's work influence you to become an architect? What was your father's [Benjamin Goldberg] work?

Goldberg: My father was a man whom I came to understand much more after his death than during his life, which I think is an experience that is not unique. We were not close. I was probably a disappointment to him in many ways, but I am grateful to him for respecting the fact that although I was his son, I was a person with a choice. My father grew up in what was then the countryside in

the northern suburbs of Chicago—Highland Park and Deerfield—and I can remember drinking fresh cow's milk from my grandfather's farm out there. My father loved animals; he loved the country. It was my mother [Sadie Getzhof Goldberg] who brought him into the city, I suspect reluctantly.

Blum: Didn't he have a farm?

Goldberg: No, my grandfather had a farm and my grandfather also had a brickyard and my grandfather also was a horse trader. My grandfather also had a general store. My grandfather was part of the development of this part of the Middle West.

Blum: What was your grandfather's name?

Goldberg: Isaac Goldberg. My father wanted me to have a successful career as he saw a career in his mind. For him my career was different than what he anticipated. On the other hand, my mother was a city dweller. She was brought up in Chicago. I should have known more about her life, but her life was, like most mothers, always so close to mine that I thought that was the only life she ever had. My mother was very concerned about making sure that my education and that of my sister as well—there were just the two of us—was a full education and that we had all the things that the country would not have given us. So I suppose that this had a great deal of influence also in giving me a sense of freedom in making a choice.

Blum: You said your grandfather was a brick maker, among other things.

Goldberg: Yes.

Blum: Was that your father's business also?

Goldberg: No. My father's work emerged from working in the general store of my grandfather. My father had, I think, nine brothers. I think there were ten

boys. It was a question of cheap labor, you know. They all worked as what we today would call a team, I suppose. It was a sense of family at that time. But when my father came into the city at my mother's urging to give her children an urban education, he became a merchant. He was in the hotel and restaurant equipment business.

Blum: Why did you say that you think perhaps you disappointed him? Because you didn't chose a career to his liking?

Goldberg: I think a career that he would have liked to have seen me undertake was that of making money, very simply.

Blum: But you did.

Goldberg: Well, not the way he saw money being made. I think he saw money being made in trading and not in making things. I think that the sense of making something was something that perhaps my mother encouraged. It's difficult to analyze these things out of one's past, but I'm only speaking, really, from memory—from the things my father urged me to do, the things my mother urged me to do, I suppose. When I say "urged," they didn't say, "Go out and do this," but one got approval for certain things and that's the process of urging.

Blum: What did your sister [Lucille Goldberg Strauss] do? Did she take a profession?

Goldberg: My sister was also—and I cannot ignore the path she at least lighted up for me—my sister went to finishing school. She went to University [of Chicago] High School—Lab School—and then she went to finishing school and then she was part of the original group of the Goodman Theatre. She became a professional there at the Goodman Theatre. I think that year was about 1925, if my memory serves me. She allowed me to learn a great deal about the things that she was doing. She made it possible for me to go down to the

Goodman Theatre on Saturdays to learn how to do stage design, for example, and stage lighting, which was very attractive to me at that time, and on occasion she would allow me to come to her theater events. Of course, seeing theater and having access to her library was an enormous experience for me. I loved to read as a young person, and I used to read everything she had so that I had the advantage of reading beyond what would have been available to me at my own age.

Blum: The two of you chose careers that obviously were not just making money, and if you were so clear about your father's wishes for you, it must have been a very strong urge and perhaps with your mother's great encouragement for both of you to go into creative careers.

Goldberg: I think as I have watched our own children choose their careers that there is almost in America too many choices. I don't think we ever felt constrained to make a choice in our family. In short, whatever we wanted to do was what got our parents' backing.

Blum: That's wonderful for you. I don't think all people of your generation, or of any generation, had that kind of freedom.

Goldberg: I think what you're saying is correct. It was especially true at that crisis moment during the depression because there was an enormous sacrifice on the part of the older generation to make it possible for their children to do what they wanted them to do or what their children wanted to do.

Blum: What preceded your choice of a school to be trained as an architect? Did you have mentors? Did you have classes? I suppose in a public high school they would have mechanical drawing or classes of this sort.

Goldberg: No.

Blum: Did you have any encouragement in that way?

Goldberg: No. As a younger person in my grammar school days, I went to the Kenwood School, which was headed by Mary Frances Willard at that time. So as a good pupil I got goodies and I got responsibilities.

Blum: Such as?

Goldberg: Well, such as the fact that I was in charge of slides for the school. We did little theater things in grammar school. Of course, I skipped grades, which was customary at that time to anybody who could read and write. But I was given the kinds of privileges which a student who could read quickly and absorb information quickly was awarded. I went to the Lab School after that at the University of Chicago for a while, and again found the opportunities to write and read were just enormously attractive to me. In grammar school I had published the school newspaper, and writing was very attractive to me.

Blum: Then at what point between 1913 when you were born and beginning grammar school did your family move to the city?

Goldberg: Oh, we were in the city. I was born in the city.

Blum: Oh, you were never in the country, or what is now very fashionable North Shore suburbs.

Goldberg: No, except as I occasionally went to visit my grandfather. My grandparents were dead long before I could use their life in the country.

Blum: You know, from what you've said about your grandfather and the variety of his work, the brickyard, of course, sticks out like a sore thumb to me because there is such a direct connection between that and what you eventually selected as a career. Do you have any recollection of that making a strong impression on you?

Goldberg: No, but as I look at other young children who have wanted to become architects and as I have looked at young children in general and their preferences for what they do, there are children who like to work with their hands as well as with their heads, and I think I was one of them. I loved Meccano sets; I loved to put things together as a child, and that, too, was encouraged. It all came very naturally, and I don't think there was any predilection for any of these things. I think I just received a very normal opportunity to be educated with good people, approved at home for doing well in school, approved by my peers for doing things which they enjoyed doing with me, such as publishing a newspaper. I published the school newspaper both at grammar school and again in prep school at the Harvard School for Boys.

Blum: I have a big confusion in reading many of your biographies that have been published. Was the Harvard School for Boys what is now known as Harvard University in Cambridge or the Harvard School for Boys, the one in Chicago?

Goldberg: I attended both the Harvard School for Boys in Chicago as well as Harvard College later in Cambridge, Massachusetts.

Blum: Oh, well that's the source of the confusion, then. You went to both of them. So Harvard School for Boys was like a junior high school?

Goldberg: No, it was a regular prep school that carried classes from K through 12.

Blum: Did you go there?

Goldberg: I left the Lab School because at that time admission into the Ivy League colleges was through College Board Examinations, and the Lab School did not prepare for College Board Examinations, particularly in classical languages. So it became apparent to me that if I wished to get into an Ivy League school from the Lab School it was going to be extremely difficult; so I changed to the Harvard School for Boys.

Blum: You lived on the South Side, and went to Kenwood.

Goldberg: Yes.

Blum: What was Chicago like during those years? You were obviously a very perceptive young person.

Goldberg: A very exciting place—a very exciting place. At a very early age, one became aware of the things that are made in Chicago, of the stockyards, of the steel plants out on the southeast side. There was a place called downtown, of course, the Loop.

Blum: Did you go downtown?

Goldberg: Oh, yes. Well, that was very big, to be taken downtown. Downtown was always a very great celebration, to see the shops. I have recollections of hot dogs at Tebbetts and Garland, which used to be on Michigan Avenue I think, and then later it became the Stop and Shop.

Blum: And the ice cream parlor near Marshall Field's or Henrici's?

Goldberg: Oh, Henrici's, yes, but Henrici's was for older people.

Blum: Oh, I see. Were there any buildings downtown that stand out in your mind?

Goldberg: Yes. I remember the Gage building.

Blum: It's still there. What was so memorable about the Gage building?

Goldberg: Yes. Of course, it is a building which has become an architectural landmark in Chicago for the simplicity of its structure. I can remember that building in particular—for whatever reason, I don't know. And of course, the Carson,

Pirie, Scott building. Those were buildings that were especially attractive to me as a young child.

Blum: And the Art Institute or the Chicago Public Library, which were very classical buildings? You're talking about Chicago buildings.

Goldberg: Yes. I had not thought of it until just this moment. I must confess to you that the Art Institute never appealed to me as a child. I think I was frightened by the lions.

Blum: But there were classical buildings in Chicago, Beaux-Arts type buildings.

Goldberg: Yes. Well, they weren't identified to me as classical buildings. To me they were just buildings.

Blum: But the look was different—more formal, more monumental, pretentious perhaps.

Goldberg: But if you're looking for early traces of architectural perception, I don't think they really were there. Of course, there were Friday afternoon concerts at Symphony Hall for kids. We always used to be excused from school if we went to the concerts. So that was another downtown excursion.

Blum: At what point were you going to the Goodman Theatre with your sister?

Goldberg: Well, let's figure it out. If it was 1925, I was twelve years old. So I was really allowed to become familiar with her Goodman theatrical world at a relatively early age—twelve, thirteen, fourteen.

Blum: But that's also downtown, at the Art Institute, in the city. It was early in your life.

Goldberg: Well, it didn't seem like it. When today I meet some of the people I shared

my school days with, I begin to understand, really, how much more my sister and I were exposed to a world which was not easily come by in the middle class. Theater, concerts, good schooling—and intellectual freedom. I mean, there was no prohibition on what I read. There was no prohibition, really, on what I did.

Blum: Did that mainly come from your mother's influence?

Goldberg: I would say that mainly came from my mother's encouragement, and the sense of freedom that my mother gave me.

Blum: That was the twenties, and I suppose those were times that required child-raising rules and regulations.

Goldberg: The world wasn't nearly so dangerous for kids at that time, so we did whatever we wanted to do.

Blum: You said you went to Harvard. Was that your first university?

Goldberg: This was my only.

Blum: Your only university. How did you select Harvard? Why did you select it?

Goldberg: Well, I was always fortunate enough to be a good student. I enjoyed the company of my teachers. As I said, I enjoyed reading and I enjoyed learning. I suspect that Harvard was always held out as a place of learning.

Blum: Did one of your teachers first suggest it to you?

Goldberg: Well, there was a kind of general environment at prep school that encouraged picking a school that was identified as being the center of learning; that could have been any one of the Eastern schools. The University of Chicago was obviously a very good school, but going away to school was a

very important thing in a man's life. You leave home.

Blum: So you selected Harvard. Was that called the Cambridge School of Landscape Architecture at the time?

Goldberg: No, I enrolled in Harvard College. Now, there are a number of postgraduate schools at the University: Theology, Business, Law and Medicine. But the College is the undergraduate school. The college takes you from prep school to postgraduate school. In my freshman year at Harvard decided that I wanted to become an architect and train for it at the postgraduate school on its campus, the Cambridge School of Architecture.

Blum: How did that come about?

Goldberg: Well, it's a very curious thing. There was a system of logic that I had learned at the Harvard School for Boys from a physics teacher by the name of George Vaubel. I remember him to this day. George Vaubel taught us at that time to develop systems of logic, particularly as they pertain to the physical sciences. One of the things he introduced me to was a system that reversed your logical progress. You went to the end and came back. You, in a sense, turned your logical development upside down. In my freshman year at Harvard College I asked myself not what I would like to be in the world, but what I would like to be if I were the only person in the world.

Blum: What an unusual exercise! What did you decide you would like to do if you were the only person in the world?

Goldberg: Well, rebuild it. I tested that out against various feelings that I had, and it seemed to persist. It seemed to persist both from the age of sixteen on up, and it seems as if it will when I am ninety. Looking back I tested that urge against other possibilities. For example, I tested that against other forms of professionalism and other forms of intellectual activity, because I suspect that it was at Harvard that I learned that one could lead a very pleasant academic

life, but could one be happy with that? Well, anyhow, I chose to be an architect. That was the time of the depression, also.

Blum: Was it 1930 to 1932?

Goldberg: Right.

Blum: Did you complete your undergraduate work in two years?

Goldberg: No. I took five courses each year instead of the four courses, so I got a leg up on more class work. But it occurred to me that I would like to go to architectural school at the same time I was going to college. Again, I had been so lucky to find just wonderful people who could help me in my education. There was a man by the name of Henry Atherton Frost who was at that time dean of the Cambridge School of Landscape Architecture, which was just another one of those graduate schools in the Harvard Yard at that time. I appealed to him for the privilege of going to architectural school.

Blum: What did he suggest?

Goldberg: Well, he allowed me to work with him.

Blum: So you worked in the graduate school at the same time you were officially an undergraduate?

Goldberg: Right. I fitted my schedule of hours around so that I could spend time drafting and studying the Greek orders and doing what one did at the architectural school.

Blum: Was it being taught in the Beaux-Arts tradition?

Goldberg: Yes. In my second year of doing that, it occurred to me that if this was a system which I didn't totally understand, but which led one to become an

architect, then why should one do it at Harvard rather than do it at the Ecole des Beaux-Arts in Paris? So I went to Frost with that idea of leaving Harvard and going to Paris. I was rather impatient to get on with this.

Blum: What did Frost say?

Goldberg: Frost said, "You know, I think there is a school that you should pick rather than the Ecole des Beaux-Arts. I think you ought to go a school called the Bauhaus."

Blum: Did he explain why he said that to you?

Goldberg: No.

Blum: At Harvard were there any pockets of—I'm going to say discontent, and I don't mean it in a strong way—intellectual discontent with the traditional training? Were there any pockets of—I don't know what, perhaps, the word is—but a more modern approach? Some of these things were being published, and students of architecture would certainly have come in contact with this.

Goldberg: You have to again remember that although the Bauhaus had a history prior to World War I, it was in a mode of development until, perhaps, 1925, I believe, or 1926 when its building was built in Dessau. So really the Bauhaus as an institution of important ideas only had been in existence seven years.

Blum: You mean between the time the building was built and the time you were interested in going there.

Goldberg: Yes. Now there had been a kind of seminal exposition in Paris in 1925 [International Exhibition of Decorative Arts] of a new world of design, which today we call Art Deco perhaps, and there were people like Joseph Urban here in this country who were doing architecture and interiors in a way in

which other people weren't—using new materials in new ways. But certainly at the time I went to the Bauhaus at Frost's suggestion, I was not alert to those differences in the role of change in modern architecture—the sociological implications of the Bauhaus, for example, or the political implications of an architectural education in Germany vis-à-vis a classical architectural education in France. I was not aware of those things.

Blum: So you went to the Bauhaus at his suggestion. What did you expect to find?

Goldberg: I expected to find a school that would provide an education in an architecture that was suited for certainly a different world—at best a new world, but a different world. You have to remember that Harvard during the depression was filled with all kinds of influences. Certainly there is the classical New England influence which has never changed, but intellectually in various fields of humanism, there was a spirit of investigation, at least, if not discovery. In the political sciences, certainly there was a feeling that the world was going to change radically and that the concepts of the old world may not do for the new world. Alger Hiss, for example, who was prosecuted by classical politicians long after his activities as a student at Harvard, was a perfectly normal kind of person to be found at Harvard in those years because of the intellectual questioning that existed at Harvard at that time—questioning in music, questioning in politics, questioning in the humanities. It was a very rich environment of questions—not so many answers, but certainly questions.

Blum: It seems like you were so well suited for that.

Goldberg: I was lucky, as I say.

Blum: I don't know if it's such luck. It seems that there was some guidance there somewhere, some plan.

Goldberg: Well, whatever. You asked me what I expected to find at the Bauhaus. I must

confess that I learned what I found at the Bauhaus long after I left there. I mean, I worked very hard at the Bauhaus because one had a sense of the shift of time—that things were not going to be the same the next day, the next week, the next year, certainly; that there was a limit to whatever was possible at that moment. There was in Germany a sense of ferment. That same sense of ferment that existed intellectually at Harvard existed sociologically in Germany. The Nazis were there. The struggle of Germany to really re-arm itself and create a war could very well be seen. People my age were deeply involved in politics, even to the extent of carrying arms on occasion.

Blum: Exactly when did you leave Harvard and go to Germany?

Goldberg: In 1932.

Blum: At that time had the Bauhaus closed in Dessau?

Goldberg: It had not closed. There was a question as to whether it would close, and so on my arrival in Germany I went to Mies van der Rohe's office in Berlin. Mies and Lilly Reich, who sort of managed things for him in his office—at that time that was all I understood of her function—but at that time Lilly Reich and Mies suggested that I work in Mies's office instead of going to Dessau and working there. The school was rather disorganized.

Blum: The school was still operating in Dessau, but Mies's office was in Berlin?

Goldberg: Yes. The school was operating perfunctorily. I went to Dessau and met some Americans there.

Blum: Who were they?

Goldberg: Charles Ross, who was married to Nancy Wilson Ross who was a rather prominent writer at that time. Now they are both dead.

Blum: At what time of the year did you arrive in Germany?

Goldberg: I think it was May 1932.

Blum: So school was still in session in Dessau?

Goldberg: There were students still there, there were classes. As I said, you couldn't enroll. I couldn't enroll in the school at that time, although some place among my papers I have something that says I was a student at the Bauhaus.

Blum: What was the acceptance procedure, if you couldn't enroll? How did you establish the fact that you were a part of it? How did they know to collect money from you?

Goldberg: That's a good question. They collected tuition fees, but nothing happened. You could see the buildings, you could go and see what remnants there were of classes; but I elected then to work in Mies's office with his one architect whose name was [Bruno] Walter.

[Tape 1: Side 2]

Blum: How did you go to Germany, knock on Mies's door, and say, "Here I am. I want to work in your office"? How did this all happen?

Goldberg: Well, it wasn't quite like that. It was a little better organized than that. I had written to the Bauhaus from Harvard to be accepted as a student and they had accepted me as a student, and I warned them that I was coming. So that had been arranged. I didn't know exactly when I would appear, but I think I finished my exams and then took off. The arrival at Mies's office was for me the moment when my career was really beginning seriously, I felt. Mies very simply attached me to Walter; I would meet Walter around eight o'clock in the morning and work on one of Mies's buildings out in the field and spend the day with Walter. He would show me things about building buildings and

about Mies's architecture. Walter and I would then finish up the day roughly around ten o'clock in the evening.

Blum: It was a long day. So you were sort of an apprentice?

Goldberg: I was an apprentice.

Blum: Did you get paid?

Goldberg: No. I didn't get paid for a number of years after that by anyone. I don't think I had any ability to help at that time. I think it was just out of the tradition of apprenticeship that Mies allowed me to come on board.

Blum: Did you speak German?

Goldberg: Enough.

Blum: When you first met him, what was that encounter like? What did you think?

Goldberg: I've never thought that I had to answer that question. I'm not sure I know how to answer that question. I think Lilly Reich was much more articulate than Mies was. Mies was a presence—an immediate presence—in whatever room he came into. I mean, you felt that this was a *mensch,* if you please.

Blum: I can only imagine how he was after reading about him and hearing people talk about him. Was he friendly, was he standoffish?

Goldberg: He was not standoffish; he was just a very quiet man. He said very little, but you paid attention to what he said. Lilly Reich was a much more conversant personality, and she was much more interested in what was going on in Chicago. I had come to her with some messages from a woman by the name of Claire Wilson who was head of styling at Marshall Field's and wanted certain things from the Bauhaus, particularly their weaving of new materials.

Marshall Field's wanted to see if it was possible to introduce those new materials to their store. Lilly Reich was much more interested in that aspect of it and had arranged to get me some things to send back to Chicago.

Blum: Did you say that she sort of ran the office?

Goldberg: That was my impression.

Blum: So it was Mr. Walter, Mies, Lilly Reich and you.

Goldberg: Well, yes. I think you're giving me much too much importance in that.

Blum: And also you, if that makes it less important. What kind of projects did Mies have in his office at that time?

Goldberg: He was completing a brick house. I can't remember the name of the suburb in Berlin where the house was built. The house is not widely published. I think it was the Lemke house [Berlin].

Blum: That was the last house he built. This house was under construction and you would go to that site?

Goldberg: Yes.

Blum: Wasn't this about the time of the Reichsbank competition?

Goldberg: No, I think that came later. I didn't work on it, in all events. Neither did Walter. I worked with Walter constantly. I mean, Walter was there to teach me German politics as well as teach me architecture. He looked at me as if I were a rather spoiled American object.

Blum: How did you feel in Germany, being Jewish? There certainly were seeds of unrest—politically, socially for the Jews as early as that.

Goldberg: The Jewish identification was not nearly so ominous as it became later. I was recognized, really, as an American rather than as a Jew, although with my name and nose I don't know how they could have mistaken me for anything else. But the tendency at that time, the polarization at that time, was not Nazi-Jew or German and Jew, but was rather German and American. Germany, of course, was still suffering from their depression. I had some friends, both Jewish and non-Jewish, through my family connections. They had sent me to some people in Germany who had still survived rather well. The environment was not yet extremely critical to Jews. It was critical to liberals—critical of liberals, and the environment was critical for liberals. I had a number of friends whom I made outside of the school who were deeply involved in politics.

Blum: What were their leanings?

Goldberg: Well, I had a very fortunate connection with an important economist by the name of Vladimir Woytinsky. Vladimir Woytinsky, who came to this country in about 1935 or 1936, had been the commissar of the Western Front in the Menchivik Revolution in Russia. He wanted to practice his English, so he invited me to come to him twice a week to exchange his lessons in socialism and economics for my English conversation.

Blum: You got Mr. Walter's interpretation or understanding of what the situation was in Germany. You now have a Russian living in Germany giving you his impression.

Goldberg: It was more important than that. He was the chief statistician at that time for all of the German trade unions, and he knew his time was limited in Germany.

Blum: Then he was really quite well informed.

Goldberg: He was enormously informed. I translated one of his books, which unfortunately was not published here in this country. I translated it from the German. I asked him once how you started a revolution, because he was deeply involved in the Russian Revolution of 1905. He said, "Oh, it just happens I wrote a book on that." That book by 1933 had been translated into numerous languages but never into English.

Blum: So what was your impression as you began to integrate all of these ideas that people from various walks of life were giving you with your own?

Goldberg: It never occurred to me until much later that architecture, beginning really quite far back as I now see it—I mean, my own investigations carry me back to certainly the eighteenth century in this regard—that architecture has been so responsive to its social and political environment, whether it leads it or whether it follows it. There probably is some of each in the field of architecture. But at the Bauhaus I was immersed in an architecture that had really come out of the yeast of the Weimar Republic. This is when the so-called modern architecture really bloomed in Germany, although the seeds had been there long before. Mies for me ultimately is an architect of 1910, 1915. We recognized his vocabulary much too late. He emerged much later than his vocabulary. He didn't emerge until the late twenties. By emerging I mean emerge publicly. But the steel and glass architecture for which Mies is recognized is an architecture which is founded, I believe, in a political upheaval. You could not have contemporary architecture as it was taught at the Bauhaus, as it was taught by Mies, as it still will be taught again, I am sure, without a violent economic and a political change. The value system of modern architecture came from the value system of political rebellion. To bring this back to that portion of my own story, here I was in the midst of a political ferment between the socialists and the communists and the Nazi movement in Germany, and I was with the man who was really masterminding the socialist programs in Germany, to a great extent. Here I was in an aesthetic environment which was expressing changes in architecture brought about by industrialism and its social concerns. It was a

fortunate coming together—as I keep saying, I have been lucky all of my educational life of that time.

Blum: Do you think at the time you understood much of what you say today?

Goldberg: I didn't understand it, but I certainly was receptive to it. I was a sponge. I soaked up everything I possibly could of both of these things. I loved sitting there with Vladimir Woytinsky and his wife and having these secret telephone calls come in, and then he would explain these movements that were in progress. He even taught me how to distribute radical political circulars in these apartment buildings. "You must always," he said, "start at the very top floor because if somebody opens a door who disagrees with you, you're caught, you're trapped. But if you start at the top, you can escape from a building."

Blum: Things you never learned at Harvard.

Goldberg: Things I never learned at Harvard and had very little influence on my architecture directly, but certainly it gave me an enormously profound understanding at that age of wedding political activity with aesthetic values systems.

Blum: The semester didn't start until October 15?

Goldberg: I don't remember.

Blum: So you were there from May until October, working in Mies's office, absorbing all of these ideas, having these experiences. Where did you live during the summer?

Goldberg: During the summer I lived on the street of the whores—Friedrichstrasse.

Blum: Did you have an apartment?

Goldberg: I had a room. The big, old apartment buildings in Germany had courtyards. They had street-front apartments five stories high, and then they were built in squares around interior courtyards.

Blum: You had an interior garden?

Goldberg: It wasn't a garden. It was a concrete garden where they hung their laundry and they parked their bicycles and garbage. They had a series of courtyards when the lots were very deep. I lived in the third courtyard at 13 Friedrichstrasse on the fifth floor. The man who lived in the room next door to me with his mistress was a policeman, and so I learned about the police force in Germany from him. They were making their army out of their police force, you see. He got military training and explained his regulations to me. I exchanged English lessons with him for his mistress doing my laundry.

Blum: Oh. I expected you to say something else.

Goldberg: No.

Blum: When the semester began, you did go to school even though you didn't enroll?

Goldberg: No, I had enrolled.

Blum: Was there a formal registration process?

Goldberg: Yes. I don't remember any formal registration process. All I remember at this moment was ending up in Berlin-Steglitz where the school was located. Mies had found a telephone factory, and he established a new school. He simply moved the Bauhaus from Dessau to Berlin. There was a small group of American students.

Blum: The American students in Dessau moved to Berlin with him?

Goldberg: Yes.

Blum: Did the Rosses move?

Goldberg: The Rosses moved, Michael van Beuren moved, William Priestley moved. I remember Natalie Swan and Lila Ulrich, who had lived in Evanston, as I recall.

Blum: And when you enrolled, did you know these people from Dessau?

Goldberg: Well, Mies sent me to the Rosses. They were very much older. They were thirty years old. Nancy Ross was writing books about Germany at that time and magazine articles.

Blum: Did they act as your mentors, introducing you to the other Americans?

Goldberg: Yes. But I had lots of German friends also. Mike van Beuren and I shared an apartment.

Blum: What did you study in your course work?

Goldberg: I had very little common sense at that time, but I had enough common sense to realize that Hitler was going to do something rather violent to change the Bauhaus environment. Following the pattern, which I had learned at Harvard College, I took two years at the same time at the Bauhaus. I discovered that in spite of the reputation for being hard workers, the Germans are very casual about their education. Part of it may have come from the fact that when they finished with their education they had no vision of future work to be done for all those years of education. So I took two years' work in the Bauhaus at the same time. I took the first year's courses and the second year's courses simultaneously.

Blum: What were they?

Goldberg: The first year's courses were largely a thing called *werklehre.* There is no good translation for *werklehre,* but it consists largely of learning how to see. *Werk* means work, and *lehre* means study—the study of how to work, I suppose. That may be one translation of it. There are other translations of it, but none of them really matches what you do. You learn the world of color, you learn the world of the third dimension. You know, until we are made aware of what we see, so many of us see in two dimensions. You're aware of a third dimension, but you don't really understand how the third dimension is formed.

Blum: How is that taught?

Goldberg: It's taught by teaching you how to see—by drawing what you really see, by constructing, in a sense, what you see and by manipulating what you think you see into forms that cause other people to think they see the same thing. For example, one of the projects that we had that I remember so well was doing a newspaper page so that when somebody looks at your drawing he thinks he is reading a newspaper, but he keeps on looking and looking and looking and he can't quite make out the words because there are no words. What you are doing is getting the essence of what calligraphy actually is—symbols of ideas, I suppose—and you try to make those little symbols without actually doing a letter or a word. You are giving the essence of a newspaper page.

Blum: You know, when you said 3-D it occurred to me, when you were in Mies's office did he work only with drawings or did he make models? Did he have models?

Goldberg: That's a new question for me. I only remember drawings, but there may have very easily been models.

Blum: Models at Armour [Institute] or IIT [Illinois Institute of Technology] began with Mies. I wonder if this is something he did prior to the school.

Goldberg: We did that at the Bauhaus that way, making models. But I don't remember if we made models in his office,.

Blum: Who taught the 3-D course? Who were the instructors?

Goldberg: Well, Walter taught some of it, but largely [Josef] Albers taught it. Albers and I became very good and close friends, which continued here in this country while he was at Black Mountain and at Yale as well.

Blum: What was he like?

Goldberg: He was a fantastic man who taught me how to see, and I mean that literally. My experience with him was just fantastic for me.

Blum: Did you know his wife [Anni Albers] as well?

Goldberg: Oh, yes. We had a good friendship. When he came to this country, sometimes he visited me, and I visited him at Black Mountain. He did the design for the doors on the Michael Todd Theatre lobby for me.

Blum: He taught the 3-D course at the Bauhaus.

Goldberg: Yes. I don't think he conceived of it as a 3-D course, but he taught that. He taught concepts of sight. It was probably something that began with [Johannes] Itten in Berlin long before it was taught at the Bauhaus, although I think Itten has some cross-reference in with the Bauhaus in the much earlier days. But the science of color and the science of vision, as you know well, began with men like [Johann Wolfgang von] Goethe and [Joseph Mallord William] Turner a hundred years prior to that. The fact that all people didn't

see the same thing became apparent, and how the artist causes people to see things is really what they were up to.

Blum: You really studied the science behind it.

Goldberg: I don't think he thought of it as a science. I think he thought of it perhaps as a psychological science.

Blum: The Impressionists had studied color and vision and optics.

Goldberg: With no question. They were the inheritors of Turner and others. I don't know if [John] Ruskin did any work in that, but certainly Turner did an enormous amount of work prior to the Impressionists. We had a teacher [Hinnerk] Scheper, who taught us color. The two things, color and space, were related to allow one to understand. While Albers was teaching, you might say, black-and-white space or teaching space in black and white, he was also relating that space to Scheper's color studies. I had studied some of those color systems at Harvard at the Fogg, and the science of color, so-called, was not new to me as a result. But at the Bauhaus, the way in which we studied color as having an effect on dimensional perception was new.

Blum: One of the other people who is listed in the Bauhaus book as being on the staff during those approximate years, of course, was [Ludwig] Hilberseimer.

Goldberg: I had Hilberseimer also. I studied with him.

Blum: What did you study with him?

Goldberg: Hilberseimer was teaching planning at that time—city planning and then also house planning. But house planning or domestic planning at that time was really restricted to almost affordable living. It was not the Miesian concepts of inner space and outer space and the kind of thing that one really studied about Mies and the Tugendhat House.

Blum: Was this housing for low-income people?

Goldberg: Yes. It was more closely related to the work that Mies did in the Afrikanerstrasse—the public housing. The term is *siedlungswohnungen,* the settlement houses.

Blum: Do you remember if Hilbs's courses in planning made an impression on you?

Goldberg: Oh, they made a very deep impression on me, one which I later had to learn to abandon in the detail, but which I continued as a method.

Blum: There's another instructor that is mentioned along with Hilbs and Mies, and that's [Walter] Peterhans.

Goldberg: I never studied with Peterhans. Peterhans taught photography at the Bauhaus while I was there, but I didn't study photography.

Blum: Was [Wassily] Kandinsky there at the time?

Goldberg: Kandinsky was there, and I studied painting with Kandinsky. He drove me up a wall, also.

Blum: What do you mean?

Goldberg: Well, out of my Harvard studies came a very keen appraisal, I guess is the right word, of romanticism versus classicism—not in the classical sense of the word classic and not in the classical meaning of the word romantic, but using those words as code words for systems of thought or ideas of logic. I'm not sure that I clearly understand what constitutes classical. There have been other ways to compare classical versus romantic, but very clearly I was under the influence of a man by the name of Irving Babbit, who taught at Harvard—a man who really examined the roots of the romantic movement in

literature and painting. As a result of my study with Babbit, Kandinsky for me was a silly romantic, and one whom I never learned to appreciate at that time. I mean, later in life I appreciate almost everything and am much more eager to see everything.

Blum: Was it because he didn't fit? I don't want to make this sound rigid, but you had an idea of what romanticism was about and his version just didn't fit?

Goldberg: No. He fit Babbit's idea, but he was rather on the silly side of romanticism. One of Kandinsky's students had done some sort of painting or drawing of an elephant and Kandinsky said, "Ah, but you must feel like an elephant in order to paint the elephant."

Blum: I've heard that said to children as they try to express themselves. It doesn't have to look like an elephant, but it has to have the essence, which is a word you used before.

Goldberg: I would say that we all understand what that means. I don't think I understood what it meant when Kandinsky said it.

Blum: To feel like an elephant?

Goldberg: To feel like an elephant. I was very untaken by the visual contents of his paintings as compared with an Albers or as compared with [Paul] Klee. I mean, I've always thought that the only good painters are the very intelligent ones, and I guess I didn't feel as if Kandinsky was intelligent. I felt as if he was kind of a fancy-Dan modern painter.

Blum: Do you still think that?

Goldberg: I still think that to some extent when I look at his work.

Blum: Did you learn anything from him?

Goldberg: Oh, yes, without question. I learned how to paint with color as a theme.

Blum: Well, he succeeded. Was there anything that stays with you that in the studies or the courses that you took really made a lasting impression?

Goldberg: When I left the Bauhaus, I think that the very few things that I carried with me were, one, that whatever architecture had to offer had to be offered with the use of an aesthetic and a value system that was based on industry. The origins, the roots, the materials, the methods for translating industry into aesthetics were not so clear to me.

Blum: Those ideas were not at all apparent to you at Harvard?

Goldberg: No. At Harvard, with the exception of color studies at Fogg, which had to do with a rather more profound understanding of process, the architecture at Harvard was almost purely a question of formal design applied to a problem. When I came back from the Bauhaus and tried to compete for a scholarship or whatever it was that they offered at Harvard, I found competition programs such as one which sticks in my memory from the year 1934 which was to design a house for a man who has a great deal of leisure time and therefore spends as much time with his family as he does at his club.

Blum: How did that strike you?

Goldberg: As being a remnant from a world that no longer existed. I had changed that much in those Bauhaus days, in those German days.

Blum: You said you spoke a little German, or enough German. Did the American students and the German students mix well as a student body?

Goldberg: I don't think so. I think that was a question of personalities, really. The younger students such as myself spent quite a bit of time with German

students, but some of the American students spoke very little German. I was fortunate to have had German as a kind of *kindersprache* for myself. I had a nurse who spoke German with my mother, particularly when they didn't want me to understand what was going on, so that was a language which at least I have an ear for.

Blum: So there was a separation among the students, but you say mostly based on personalities.

Goldberg: Yes.

[Tape 2: Side 1]

Blum: I'm not exactly clear when you left the Bauhaus, but were you there in February for the carnival?

Goldberg: Yes, the Bauhaus Ball. In fact, I designed the invitations for the Bauhaus Ball that year.

Blum: Do you still have any?

Goldberg: Someplace in my files I still have one.

Blum: There was one held on the eighteenth of February, according to the literature, and a second one a week later.

Goldberg: I don't remember two. I remember one that lasted two or three days.

Blum: Well, the most successful, apparently, was the first one, and that's the one that's been described. What was the purpose of the ball?

Goldberg: That was an annual festival—an annual celebration which was, I suppose, meant to clear you of all your inhibitions and to make the pursuit of

happiness part of design and creativity.

Blum: Was there an effort to raise money? There was a lottery. What was that all about?

Goldberg: I'm sorry, I don't remember the details. I remember decorating for the ball. It was a costume ball, and I helped decorate the room at Berlin-Steglitz for the ball. I can remember a very drunken student life during the ball.

Blum: In the Bauhaus, each room was apparently decorated. If I'm not mistaken, Hilb's room was decorated to be a quiet place. It didn't turn out that way, but that was the intention. And Mies's room, apparently, whoever reported this thought was the best of all. Do you recall how he rooms were decorated?

Goldberg: I don't recall. I recall Mies's office, as an office, but I don't think I recall it as part of the ball. I can recall being in a room during the ball, but I can't recall whose room it was before we were in the room.

Blum: Was this just like a Mardi Gras kind of event?

Goldberg: Well, I don't know what you mean by Mardi Gras because the Mardi Gras that I have attended have been street events. If I remember correctly we painted one of the major rooms and we had lighting—purple lighting, or violet lighting, really, not purple—but we had violet lighting and green lighting so I forget whether it was green shadows and violet lighting or violet lighting and green shadows; my memories are also of a lot of gaiety, a lot of just wild dancing and a shedding of inhibitions.

Blum: Was this only for the students and the staff of the Bauhaus or was it for the townspeople also?

Goldberg: I think it was also for the townspeople. I only remember it from a student viewpoint. I just forget the details, but my recollection is that it was for

townspeople as well, because there wouldn't have been invitations otherwise, and I know the invitations went out because, as I said, I designed them.

Blum: I think I've read that hundreds of people came.

Goldberg: It was large. It was a big thing. I never attended one in Dessau, where I understood they were quite an event, but I only remember the one event in Berlin.

Blum: You don't remember it being repeated a week later?

Goldberg: It might have been. I might still have had a hangover, from what I remember.

Blum: From the first one? Well, it sounds like a gay, wild time.

Goldberg: Oh, it was, yes. Now, there was also a university ball. The state university in Berlin had a ball which lasted some two or three days, and I can remember that ball as well.

Blum: Was this a custom in Germany at the universities to have an event of this sort?

Goldberg: My recollection is that it must have been for all universities because another famous ball was the Beaux-Arts Ball in Paris. The University Ball in Berlin was held, I think, because they just tried to outdo Paris. My recollection is not hundreds of people at that ball, but a thousand or more people at that ball. That was, in a sense, much wilder than the Bauhaus Ball.

Blum: Did you attend a Beaux-Arts Ball?

Goldberg: Never in Paris, no. Just the University Ball in Berlin.

Blum: I see. Well, that sets up a little different impression of the atmosphere than the political, the social and all of these other things you describe that were heavy and gloomy and more serious.

Goldberg: They were never gloomy. Let me emphasize that. They were never gloomy. Berlin was not a gloomy city. It was an active city. Everybody had some sort of mission or some sort of position. You scratched a German and you had a social philosopher. Everybody had an opinion. The daily question was not about the weather, but the daily question was about the Reichstag or the daily question was about Hitler or the daily question was about whether the socialists and the communists had actually broken out in some sort of revolutionary battle.

Blum: It sounds like it was very vibrant and exciting. Do you know what came next?

Goldberg: I'm sure that there were people who were what the Germans called *spießbürgers,* but the Bauhaus group was not among them.

Blum: What is a *spießbürger?*

Goldberg: A bourgeois somebody who is sort of fat and happy and contented, or fat and happy and discontented.

Blum: But fat and happy. You mentioned the Reichstag. On the 28th of February, which was very close to the week of the ball, the Reichstag burned. Were you there?

Goldberg: I didn't go to the fire but we knew it had burned, obviously, because you couldn't miss it. It was as if somebody had burned City Hall here in Chicago.

Blum: What was the feeling about this among the students?

Goldberg: Well, I think among the socialist groups it was quickly evident and relatively clear that the Nazi group had caused it to be burned so they wouldn't have to have a Reichstag. The election, of course, had been a rather remarkable thing. Among the most remarkable aspects of this was the way in which people who had been communists very quickly overnight became Nazis.

Blum: What was your understanding of why this happened?

Goldberg: My understanding was always a second-handed understanding. I mean, I got my opinions from others. I really didn't know enough about the Germans to know about those things, so it was a question of questioning and inviting information. There were two attitudes toward the Nazi movement—at least two attitudes—but one of them was to reform them from within, which seemed sort of nonsensical. The other attitude was to go along simply because basically you could see in the Nazi Party almost anything you wanted to see. If you were rich, the Nazi Party promised that it would put an end to the unionism and communism. If you were poor, the Nazi Party promised you some sense of equality and a promise of power that you had never had. If you felt as if the world had treated you badly and that the rich, particularly the Jews, had somehow stolen the goodies that you were entitled to, it promised you a return of those goodies at the expense of someone else. There was open gunfire in Berlin. I can remember bullets coming through the train windows in the subway, in the Reichsbahn. I can remember being in night clubs and seeing those very scenes that the movies make so much of—the Nazis coming in and beating up people at a table or dragging out people and beating the hell out of them as they got out on the sidewalk. Friends disappeared.

Blum: Did that scare you?

Goldberg: I was nineteen in July of 1932, and so I was still nineteen. At that age I had a shield of naivete. I thought whatever happened was always for other people but never for myself.

Blum: This was so different from what you had experienced your first nineteen years—Harvard and a prep school and things of this sort. You had led a rather sheltered existence by comparison.

Goldberg: True, but I at least had the shield of, a), being an American, b), being young, c), feeling as if this were for other people but it would never touch me. I was intrigued. I went to whatever events I could go to. I can remember the torchlight parade on Unter den Linden [street]. I was just by coincidence sitting in Horcher's that evening, the famous German restaurant which later moved to Madrid. But there was also an enormous feeling of German rejuvenation. Certainly I was sympathetic to the concept that the Versailles Treaty had been unjust and punitive in an unreasonable way. Certainly the idea that there could be a rejuvenation was appealing to every German I talked to or knew. Hitler was underestimated by almost all the Germans whom I knew. The idea was that as soon as he got responsibility he would become a serious person; that he had to do all that talking in order to achieve the role that they gave him. It wasn't really until they came for me—my cleaning woman told me that I was going to be picked up that night by the police—that it suddenly occurred to me that I should get out of wherever I was and get to a safe place.

Blum: When were you told this?

Goldberg: Well, it was just about the time the Bauhaus closed. It was closed by the police—I think it was twice that they tried to close it. That was roughly around April or May [April 11, 1933]. A few of us still continued going to school, but Mike van Beuren and I had an apartment on Siemenstrasse, I remember, and we had a cleaning lady who was a rather strange woman, who told me that our landlady had been so resentful of me that she had turned me into the police and that they were coming to pick me up in a few hours.

Blum: Did you believe that?

Goldberg: Oh, believe me, I believed it.

Blum: Why would your landlady have done that?

Goldberg: Well, I did a silly prank. I phoned my landlady and pretended that I was the *gauleiter* of the district and that she was harboring suspicious characters. She became terribly frightened, and when I came home on that evening she reported to us that she had had this terrible phone call and finally it occurred to her that we must have known or been instrumental or that it even could have been me. She was so angry at the whole thing she decided to make it real. She was also scared for me. That was not precisely the thing to have done, but she wanted to make it real for me.

Blum: Frightening. But you obviously had not taken it too seriously to have done that prank.

Goldberg: No. Well, the Berlin nightclubs, by the way, were still making fun of Hitler and of the Nazis. It was easy to make fun of the idiocies, and the Jewish jokes about Hitler were still very much in fashion. The comedians, many of whom were Jewish, were still telling those jokes at German nightclubs.

Blum: Now looking back it seems a little surreal to imagine such an atmosphere.

Goldberg: Do you know that movie *Cabaret?* It was very accurate. Sex, violence, humor, political cynicism—it all came together. You could have any one. It was your choice. You could have anything at any time.

Blum: Because of your prank and your landlady taking it seriously, you left.

Goldberg: I fled.

Blum: Did you leave before the semester was over—before the Bauhaus was closed or after?

Goldberg: No, it was after. The Bauhaus was being threatened, and I was partially packed. I don't know if you remember the days of steamer trunks. They were fairly large trunks, and they had drawers in them. You could put everything you owned in one, including your family. That was the way one traveled for long periods of time, and I had been partially packed. When I got that word, I simply closed my trunk and for lack of help—we lived up high where the rents were cheaper—I remember hauling my trunk all the way down five flights. We had broad stairs in that apartment building, and I can remember coming all the way down the stairs—bumpety, bumpety, bump as the trunk went from one stair to the next—and to the railroad station. I took whatever the next train out of Berlin was.

Blum: And where did it take you?

Goldberg: Fortunately, to Paris. And there I stayed with the Feininger brothers, Lux and Andreas.

Blum: Had they been at the Bauhaus?

Goldberg: Their father, Lionel Feininger, had been at the Bauhaus. I don't recall whether Lux and Andreas had been at the Bauhaus or not, but they were both in Paris at that time.

Blum: You stayed with them, then.

Goldberg: I stayed with them until I could get a boat back to the U.S.

Blum: When you were in Paris, did you seize that as an opportunity to look around at some of Le Corbusier's work?

Goldberg: I don't remember very much of what I did in Paris. I think I was really somewhat frightened at that time as to what was going to happen or what I was about to do. I can remember Lux Feininger was busy knitting a tie in the studio. I think at that time Andreas worked for *Match—he* was doing his photography. I didn't see very much of him. It was Lux I was spending a considerable amount of time with. They lived in a coldwater studio someplace. I don't even remember what street it was.

Blum: What was the atmosphere in Paris like at the time, having just come from Berlin?

Goldberg: Oh, I think quite different. Quite different. The political tensions were totally lacking, at least in what I saw of Paris. I think I was in Paris for less than a week. I didn't stay very long. I tried to get a boat back to the U.S. at that time.

Blum: Were you interested in Le Corbusier's new buildings, which were Villa Savoy and the Salvation Army building and the Swiss Pavilion?

Goldberg: I have to say to you that by that time I had become a good enough Bauhausler to feel about Corbusier, whom I knew very little about, the official way that one was supposed to feel about Corbusier—he was a great painter. The saying was that in Paris they thought Corbusier was a great architect; in Germany they thought Corbusier was a great painter.

Blum: By that time he had come through that shift in focus, and in the early thirties he was constructing some of his important buildings.

Goldberg: I don't know if this is a good moment to bring up the issues of Corbu's style and compare it with a Bauhaus architecture because that immediately identifies the Bauhaus with a style. Basically at the Bauhaus the idea was that there was no such thing as fine art, to use an American expression. What we in America consider to be "fine art" they considered to be a style, and the period of styles was gone. If there were anything left of the Weimar

Revolution, it was that an artist was a member of society with a special skill, obviously, but he was not a stylist. He worked with the tools of his art and for and with the ins of society. There was a moral mission—you brought up the world moral at the very outset of this—there was and is and continues to be a moral attitude in the work of the artist. Now, you wonder how personalities such as Mies or for that matter Corbusier or Gropius erupt in this, but the fact that there was no such thing as style is not to be confused with there was no such thing as personality. I mean, individuals continued to express their moral systems within a world where style was being eradicated, even sometimes as an archaic expression of their art or architecture. I think too little attention is paid to that in comparing modern architecture to Postmodern architecture, whatever it is. Philip Johnson's book had just appeared in 1932—Hitchcock and Johnson's book *The International Style*. It was ridiculed at the Bauhaus because it promulgated precisely the thing that the Bauhaus was striving to extinguish—the concept of style, of applied style. Architecture, art, painting, photography, dance, theater, literature was supposed to emerge naturally out of a society which was recognized as an industrialized society.

Blum: I've been thinking about what Corbusier had done up until that time as you've been talking about technology and making a building work for people. I don't think there was a heavy emphasis in his work on the social aspect at that point. But it seems to me that what he had already declared was rather compatible with what you're describing.

Goldberg: When did he publish *Ville Radieuse?*

Blum: In 1935. And *Towards a New Architecture* was published in 1923 and translated into English in 1927.

Goldberg: A quotation from one of Corbusier's books has stuck in my mind all my life—that the right angle was the perfect form because with it you could measure everything. Now, that obviously tends to come along these same

lines. To a certain extent the Right Angle Society fascinated me in my own early work for a long time. Particularly as I have moved beyond that into other forms of space, I recognize that the Right Angle Society was part of a nineteenth century effort to create a vocabulary. I don't pretend to start a dialogue on this subject, but I just want you to understand where I'm coming from. That Right Angle Society I have in my own years of development come to realize—I would say it took me a long time to realize it; I can almost remember the date—it was in the fifties that I realized that there was such a thing as a Right Angle Society, and that it had a historical tradition that certainly came out of the late nineteenth century. The beginning of the Bauhaus at Dessau marks a period when Corbusier could say such a thing about the right angle with belief. Corbu was not an anthropologist or he would have been more aware of the fact that there are societies where there are no words for the right angle; where the concept of a right angle doesn't exist. The manmade concept of the right angle was popularized in the late nineteenth century when the world was seeking universals for everything—architecture, science, twelve-tone music, serial music, a science of literature, graphics in both art and writing. These nineteenth century ideas became part of the Bauhaus development. When you say that Corbu was saying things that were part of the Bauhaus movement…

Blum: Well, it was sympathetic in spirit.

Goldberg: Sympathetic, yes. I think you've said it very correctly. The fact is that the politics and the development of ideas that depended on the right angle came together. Now, was that just a temporary thing? Was it just a style? The Bauhaus credo denies that vehemently. It said, "For what have we come through this artistic revolution, beginning before World War I? Why was there a Bauhaus if we are going to have style all over again? There is no such thing as style." I can remember Albers ridiculing me early in my work with him in his class because my handwriting is so lousy that when I signed my drawings my signature was almost illegible. Albers said, "*Hah! Genau wie Klee*"—exactly like Paul Klee. He was ridiculing Klee, perhaps, by that

because Klee's work had overtones Albers didn't share. Albers was so directly into a flow of ideas that had to do with an industrial world, that had to do with a new world, that had to do with a world which he had helped and hoped to remake. Corbu, Philip Johnson continued to be stylists. I have written on this, not extensively, but more than once.

Blum: Do I understand correctly that you were saying that Corbu was not only perceived as a painter but as a stylist?

Goldberg: He was conceived as a stylist no matter what he did, painting or architecture. Style was permissible in painting. I mean, he could go on doing paintings or tapestries or things of this sort, but for God's sake, let's not think of him as an architect.

Blum: Did you have an interest in seeing his things in Paris, given the opportunity?

Goldberg: No, I don't think so. I don't remember that I even thought about looking at his things. I knew I was returning to a very profound depression in the U.S., that there was very little opportunity to pursue architecture, and I was worried. I was perhaps, for the first time, face to face with a special reality.

Blum: An inside reality. Had you read his book *Towards a New Architecture?*

Goldberg: I don't think so. I was aware of Corbu's existence at the time I had proposed to Frost that I go to the Ecole des Beaux-Arts. I was aware of Corbu's existence, but there was no school around Corbu nor did he have an atelier at the Ecole des Beaux-Arts.

Blum: No, but he ran his own, and there were some Americans who studied with him.

Goldberg: I did not know this.

Blum: Well, I think it was just his office staff that people joined. Before we leave Germany completely, as a Bauhäuser—you called it another term.

Goldberg: Bauhäusler—umlaut A.

Blum: Was there any interest in looking around at what German architects were doing in Germany? Some were doing some interesting things.

Goldberg: I looked at the things that were available to me, without question. I can remember walking endlessly to see buildings. I had some sort of guidebook, and I remember the work of Adolf Loos, for example, which fascinated me for whatever reason at that time.

Blum: What about people like Erich Mendelsohn?

Goldberg: I did not look at Mendelsohn's work, and I didn't understand Mendelsohn's work. I had been introduced and hit over the head with the right angle. In a sense the poetry of Mies's work was what I was immersing myself in. Why did Mies turn this corner? In which way did he move his spaces from one place to another—from indoors to outdoors, from outdoors to indoors, from one room to another? Because I had studied painting at the Fogg Museum. We copied Japanese paintings in that course. By copying I had become accustomed to studying the meaning of an artist's work.

Blum: Were they woodblock prints?

Goldberg: Well, I called them paintings, but also woodblock prints. They would project one slide of a painting on the screen, and we were to reproduce it quite exactly. There was no sense of reinterpretation. The theory was immersion, that in walking down this path you would begin to understand and experience what the artist himself had done in doing the original.

Blum: Wasn't that the same as Kandinsky telling you that you have to feel like an

elephant?

Goldberg: Possibly. But no one told me to feel like the artist. The idea was that if you worked like the artist, that somehow, either in a somatic experience or in an intellectual experience or in a Zen experience, you would begin to understand. To a certain extent I was expanding that approach in my study of architecture under Mies. One would do things as if Mies had done them, in a sense, and thereby try to understand, really, what he was saying in his architectural approach.

Blum: Do you think this was your particular way of trying to understand, or was this something he inspired in students and colleagues?

Goldberg: In order to answer that I have to go back to something that Albers once said to me which I have quoted a number of times before. It was on a Sunday morning, I remember, and we had been drinking together and we were saying a lot of things. Albers used to come here and call Mies, and I think he was perhaps hurt that Mies had not embraced him in some sort of ceremony of a reunion. Albers said to me this Sunday morning, "Goldberg, why is it that every student of Mies makes an architecture like Mies, and no one who has studied under me makes painting like I do?" That's a very profound question. We all tried to understand Mies for varying reasons and with varying degrees of understanding or approaches. Was Mies a style? Philip Johnson repeated that style quite successfully.

[Tape 2: Side 2]

Goldberg: Philip was someone who wanted somehow to have his hand or his head move the way Mies's hand or head did for the same reasons. I questioned that.

Blum: What were your reasons?

Goldberg: As I used the word "poetry" about Mies's work a moment ago, I hesitated in my mind as to whether to use that word. It was a way of describing a creative magic in architecture that poetry also seems to describe—why, in writing poetry, with a certain set of choices within the vocabulary, why you make those choices, and I was trying to understand why you make those choices. I was trying to understand them intuitively, ultimately only with intuition, sort of in a sense like driving a car or doing something so automatically that it becomes part of your body, part of your head.

Blum: Do you think most students felt that way—did they try what you tried?

Goldberg: I have no idea.

Blum: What about Mike van Beuren? Were you close to him, sharing a room?

Goldberg: Oh, yes. You know, there are certain things you don't talk about. There are certain things that the paper that you draw on says for you. I'm not trying to be romantic about this. I'm just trying to say that you are in another medium of communication and you don't just sit down and talk about why you did something. It stands there, and if somebody else understands your code, then it's self-evident.

Blum: Were you able to absorb enough on whatever level and do whatever way you did for Mies to understand what you were trying to do?

Goldberg: Mies was very good to me. He was interested in what I was doing and he used to look at my work when he came here to this country. He came up to my office and looked at my designs and gave me crits as to what he would have done instead of what I had done. I am given to understand that once he said I was among the most imaginative of his students. On the other hand, I am given to understand that when I designed Marina City he said, "Well, everybody has to do such a thing once." I got from Mies an enormous amount of understanding that I would not easily have gotten from anyone

else. By understanding I don't mean necessarily his understanding, but my understanding of a number of things. You might say, "What?" Well, certainly the idea of space as almost something you can mold with your hands. Certainly discipline—a mental discipline. I have young people coming to my office to work, for example, who think that because I work in curves or work in spaces that are not rectilinear that they have an enormous freedom. Freedom requires more discipline. That I know how to build economically and industrially spaces that are other than rectilinear spaces requires me to be more careful. Mies, I think, was very helpful in giving me an understanding of the enormous discipline that any creative work requires. Albers similarly, with the working over and over and over—the refinement, the wringing out of ideas, the throwing away. As someone said in literature, any time you think you've written a good paragraph, throw it away, tear up your paper. The same thing applies, really, in architecture. Any time you think you have a great design, throw it away.

Blum: It's just a very unusual idea for me to hear someone say, but I appreciate the meaning behind it. You know, so many people have talked about Mies's method in the classroom at IIT, but no one yet that I've spoken with has spoken about his method in the classroom in Germany at the Bauhaus. What was it? German was obviously the language of study.

Goldberg: I don't think I had very much classroom critique from Mies. It may have been that he simply regarded me as on my path to learning; that I was struggling to learn and that some day I might.

Blum: Would he ever come up behind your little table and mark your drawing or sit and study it or something of this sort?

Goldberg: No.

Blum: Some people have described this as the way he critiqued drawings and people's work at IIT. How did you understand what he wanted or what he

was trying to teach you?

Goldberg: In the crits that I had from Mies he asked me what I was trying to do, and it stopped there.

Blum: Did you ever tell him, “I’m trying to be like you”?

Goldberg: Yes, I did at one time, and I will tell you that story. The story, in a sense, should be told in German. Mies and I were walking along the lakefront in Chicago here. This was while he was negotiating with Armour Tech, and we were talking about numerous big truths. It was a beautiful summer day and we were on the breakwater. I said to him in this spurt of unburdening myself, “You know, Mies, I am trying so hard to be like you, to design like you, and people employ me because they know that I am going to produce something at least following you. They pay me ten percent for my designs to design a house, and they pay you maybe ten percent to design a house. Why should anybody ever employ me? Why shouldn’t they employ you always and get the real thing? Am I always going to design like you?” He looked at me and he said, “Nah, Goldberg. Genugt das nicht?”—“Isn’t that enough?”

Blum: Isn’t that enough?

Goldberg: Yes. “Isn’t it enough that you’ll always design like me?”

Blum: What did you think?

Goldberg: Well, I thought I would think it over. In a sense, can one ever leave anybody who has been a part of his formative years? The answer is no. I mean, I can’t leave my mother, I can’t leave my father, I can’t leave my sister, I can’t leave Mies, I can’t leave Albers, I can’t leave George Vaubel. They make your psyche, everybody.

Blum: You take their essence inside of you and you take it with you, and that’s what

you're talking about with Mies—the discipline.

Goldberg: But is it a mixing pot or a melting pot?

Blum: What's the difference?

Goldberg: Well, a mixing pot never necessarily melts things so that they become a unity. I feel as if I were a melting pot. Mies never built the trefoil building, the glass skyscraper that he designed but never built. It intrigues me enormously in my later years because it came in Mies's earlier years. Now I have to tell you some other things. Albers in some of his early work did work that was not rectilinear—*pas de carreaux*—no squares. Albers once said to me, and I forget how he said it precisely, but it had to do with his wife. It had to do with her insistence that he work in squares.

Blum: She was a weaver.

Goldberg: She was a weaver, I understand, and of course she worked in squares. That never occurred to me.

Blum: That was the language of weaving, in a way.

Goldberg: Yes. But she also obviously had a sense of discipline about a vocabulary that led her to urge Albers to work in squares. Now, Mies designed the trefoil building in about 1923, I think. Never did he repeat anything like it again that I am aware of. Some of his rectilinear work is quite fluid, especially in the Barcelona Pavilion. It has the same kind of fluidity in it that a Mondrian has, or that a van Doesburg has. You get the tensions between open spaces and linear designs, visual tension in these spaces; and sometimes they flow rather than stand static. At least for me that is the way I see them. A part of that came from Mies's enormous interest in Frank Lloyd Wright's work, in the way the Japanese with screens and movable devices permit space to move. But why didn't he do anything like the trefoil design again? Now, I know, for

example, why some architects I have worked with never repeat their work, because the work didn't come from them. It came from influences in their office that they followed. And you say, well, that really wasn't his work; it wasn't their work. Now, I don't know when Lilly Reich came into Mies's life. Lilly Reich I don't think was given enough credit for her influence on Mies, and I've discussed this with Franz Schulze without results, or without conclusions, perhaps, is a better word. But my personal experience with Lilly Reich in the time I worked in Mies's office was that she was an extremely creative person, and that in those years of interior architecture when Mies wasn't building buildings—when he was doing displays and exhibitions—that Lilly Reich's sense of material, of the way in which things, objects, were seen or could be seen, the arrangement of things in space, that Lilly Reich's sense of movement had a degree of influence on Mies.

Blum: Well, I think that Franz does say that she was responsible for the softer part—the elegant materials, the things of this sort—in some of his work. But are you suggesting that maybe it was Lilly Reich's influence in one way or another that produced the building that influenced you so much?

Goldberg: There was, many years ago, I think, a man by the name of [Norris Kelly] Smith in St. Louis who tried to analyze Frank Lloyd Wright, I believe, in terms of Apollonian and Dionysian modes [*Frank Lloyd Wright: a Study in Architectural Content*, 1979]. I suppose the same kind of categorization of ideas or creativity could be applied to Mies in terms of that building and in terms of his work with Lilly Reich, that that was more Dionysian than Apollonian, and that his rigorous use of cubist spaces was more Apollonian. But it would be an interesting little trip, for which I have no time, to go back and see who was around Mies at the time he did that glass building. As I said, it was 1922, I believe, or 1923. Now, Mies at one time told me—and I have no idea about the accuracy of this—that when World War I was over and the Weimar Republic was there that all of the artists of Germany came together—and whether he meant artists or architects I have no idea; I don't think I understood the significance of this as much as I have attributed to it

since—but that they came together to decide how they could help Germany rebuild itself after World War I; that the issues finally became simplified to making a decision as to whether they would have a kind of circus of artists who would travel around Germany to express their ideas via art or architecture or music or whatever, or whether they would have a school. They finally decided to have a school, and that was the Bauhaus. Now that isn't actually the historic evidence of the origins of the Bauhaus, obviously, because the Bauhaus had been quite a number of things both prior to World War I and post-World War I. But put dates on what we're talking about. We're talking about 1919, 1920, perhaps. I think that was the date of the Weimar Republic, wasn't it, and it lasted until 1922. So Mies's building came at that time. What was Mies doing at that time, who was he working with, who caused him to express himself? The glass skyscraper at that time I don't think was even evident in America. Certainly it didn't come out of the so-called Chicago School.

Blum: Yes, but that was also not designed to be actually constructed. That was just an exercise. Do I understand that correctly?

Goldberg: I have never seen anything except the rendering. I've never seen a model, I'm not aware of the fact there was a model. Is there a model of it? I don't know.

Blum: I thought there were two buildings. One was very angular and one was curved, both in glass, both called skyscrapers, and they were. But both of them were done as projects—no clients, no real intention to build, no thought as to what would hold this building up.

Goldberg: You're right about that. I have never seen a structural system. I've only seen the outer skin.

Blum: I thought it was just an exercise, but I don't mean to demean it.

Goldberg: Well, certainly in Mies's life it was not just an exercise because he allowed

that building to be published again and again and again in the history of his work.

Blum: What do you think that meant to Mies?

Goldberg: Well, I don't know, but I think that for me at least this has a significance that it has obviously not had to Mies's biographers or critics. The concept of space, the concept of skin of a nonstructural coding—a container, if you will—was quite different for me from the things he did later on. I don't know how I got into this. Maybe I'm not going to work my way out easily.

Blum: You said that you remember this as having a great influence on you, and then you revisited the time in which it was created.

Goldberg: Yes. Well, this was a non-rectilinear space that Mies was involved in, which changed later on, particularly in this country, the earlier poetry of his space—the Barcelona Pavilion, the Tugendhat house; and some of it even was in the public housing—*siedlungswohnungen.* Some of it was in the Afrikanerstrasse stuff. What I'm trying to say is that as Mies materialized in America. He was quite a different Mies from the one in Germany with Lilly Reich.

Blum: Would you dare to speculate that if Lilly Reich were here, his work wouldn't have changed so much?

Goldberg: No, I don't dare speculate on anybody else's life. I can only say that these are things which have intrigued me in my own life because I know rather precisely when I became interested in space beyond rectangles. It was like—what did [former President Jimmy] Carter used to call his religious revelations? My moment came in about 1955, and I was designing a rather simple building. It may have even been a garage. It was a building roughly about four bays wide by six bays long or whatever, and the bay was, say twenty-five feet by twenty-five feet. I thought, well, here is a nice, simple

building that I could learn something from that I had always wanted to try and never tried before. Now, in the days when I grew up as a young architectural apprentice, the question of who would detail the structural steel was always part of the architect's concerns. The architect did the design. He'd put in the columns where they were supposed to be, but with what we call the detailing of the steel—the steel connections, the way in which the steel was constructed—it was always questioned as to whether the architect would undertake that or whether he could simply design the steel beams and then write in his specifications that the contractor would do his own detailing. On this occasion I decided to do my own steel detailing because I thought the building was so simple that it would only have perhaps one or two sizes of columns and one or two sizes of beams. I started to design the steel, and suddenly I was confronted with the fact that the corner columns carried loads that were quite different from the perimeter columns on the interior in between the corners, and there were different loads on the columns that were on the interior of the building and that the beams had other characteristics which gave me three, four, five, six, seven, eight sizes of beams by the time I got in my bracing members for the diagonals to keep the building rigid. By the time I had finished the dimensioning and the individual members for detailing, instead of having perhaps a half a dozen or ten different sizes of steel I had a whole sheet of description of dimensions and sizes and selections of steel members. Suddenly this concept of industrialized structure erupted as a myth, really, as a revelation. I had thought that because I was designing in a rectilinear form with a regularity of center lines that I was designing something that had to do with the industrial world. Now, in my past I have actually built things, like an automobile or a prefabricated house or a bathroom, and I know a little bit about industrialization. Suddenly it occurred to me that this vast variety of sizes and types no longer was an industrialized form. If I built perhaps a hundred buildings that were identical, that would be industrialized because each part in itself would be repeated, but the parts themselves had no repetitive advantages. They were, in a sense, custom made. It was an assembly of custom-made pieces, and this was not industrialization. And then almost at that same moment I began to

investigate any other spatial form which would have produced a repetitive regularity of structural members, and the only thing that I could find was either a shell, which by itself would have unity or an egg, for example—an egg is quite an industrialized form.

Blum: I wonder if the chicken knows that.

Goldberg: No, but somebody knows that. The only form for a garage I could find was, in a sense, a drum—a column at the center from which radial beams emerged. I had a regularity. Then I began to examine that form versus a rectilinear form in terms of wind stresses, in terms of usefulness, in terms of lots and lots of other values. Then I tried to discover whether living spaces could be designed in some of those spaces, and then I tried to discover if there were other ways of constructing a unified space other than with posts and beams. That was the way in which I first immersed myself in forms that had little or nothing to do with the rectangle, with the right angle. Nevertheless, having discovered how to build those forms, the disciplines and the necessity for creating a unity of structure that I had learned from Mies was quite apparent.

Blum: You certainly are eloquent about understanding what you got from Mies and the value of that experience in your life. So after leaving Germany and spending a week in Paris did you get on the next steamer with your steamer trunk?

Goldberg: I got on the next steamer. I had come over on a freighter, and I went back not even second class. I didn't go back steerage, but I think there was something in between.

Blum: While you were gone, and even before you left, some work of the Bauhaus was starting to surface here. In 1930 Buckminster Fuller lectured at the Arts Club. Was that something that caught your attention?

Goldberg: No. My first knowledge of Buckminster Fuller—and later on Bucky and I did a little work together—but my first knowledge of Buckminster Fuller was reading about him in, I think, either *Time* or *Life* magazine in Germany.

Blum: Well, he had presented some lectures at the Arts Club in 1930, which were followed in 1931 by a small exhibition of Bauhaus work at the Arts Club in Chicago.

Goldberg: But I would have been at Harvard.

Blum: There was the show at the Museum of Modern Art.

Goldberg: I was totally unaware of it.

Blum: So all of this came to you in Germany. But there had been some rumblings here, too, that you hadn't experienced. You came back in 1933, and it's been reported in more than one place that you went to see Philip Johnson.

Goldberg: I did, in New York.

Blum: Why?

Goldberg: Well, Philip was a friend of Mike van Beuren's, and Mike recommended that I go see Philip to find out who to try to work for and how to continue my education. The Museum of Modern Art was at that time up on Murray Hill in New York—on 43rd or 42nd or somewhere in there—in an old house. Philip recommended that I work for George Fred Keck here, and so that was the pilgrim's progress in an old house.

Blum: I presume it's because he was one of the Chicagoans in the Bauhaus show.

Goldberg: It could have been. I don't know. Fred allowed me to become an apprentice to him.

Blum: What was Philip's idea of what was happening in Chicago? Did he give you any indication of that?

Goldberg: Yes, I think Philip at that time was quite enthused about Chicago. I mean, there were the Bowman Brothers [Irving and Monroe] here, there was Fred Keck—certainly those two were outstanding. I can't remember any other personalities other than those whom he recommended my seeing.

Blum: Did he mention Paul Schweikher?

Goldberg: No. At that time also I wanted to, of course, ultimately get my license, so I not only apprenticed for Fred but I also enlisted as a student at Armour Institute to study structural engineering.

Blum: Had you graduated the Bauhaus?

Goldberg: No.

Blum: So you didn't have a degree.

Goldberg: No. Not from Harvard, not from the Bauhaus, not from any place.

Blum: Was it Philip's suggestion that you enroll at Armour?

Goldberg: No.

Blum: Did you have any engineering along the way?

Goldberg: Yes, I had engineering at the Bauhaus with Walter.

Blum: You enrolled in the Bauhaus for engineering?

Goldberg: Oh, yes, for engineering and architecture. I took both simultaneously.

Blum: When you returned in 1933, what did you do?

Goldberg: I enrolled at Armour. All I did was take structural engineering. There was no work, so in a sense it was a fairly relaxed environment of learning, and I became quite impatient to get on with it. By that time my educational tempo was one of telescoping different learning requirements. I went there for one semester perhaps—maybe it was two semesters, but I think it was only one. They would know that. But I then asked my professors there, whose names I don't remember, to tutor me. Rather than go to school I went to their offices for tutoring, and so I tutored for six months or nine months, whatever it was, to learn structural engineering in English instead of in German. I really didn't know how much I had understood in German.

Blum: Was that enough to give you the credentials or the requirements for a license? Or did you have to graduate first?

Goldberg: No, graduation was not required in those years. You had a three-day examination to get a license. I thought degrees were for somebody else.

Blum: Did you then have enough, in your opinion, to try for a license?

Goldberg: No. The license requirements were that you serve three years of apprenticeship in addition to whatever education you had, but you were not required to have a specific education.

Blum: You were working for George Fred Keck at the same time you were at Armour doing tutorial work. What was his office like? How did you walk to his door and say, "Here I am" and get hired?

Goldberg: Well, I said Philip Johnson had recommended him, and that was, I suppose, a password. The fact that I had come from the Bauhaus was intriguing for

these people, without question, to see what I had to say.

Blum: What was his office like at the time?

Goldberg: It was about as big as this room. Small, but it was divided into two rooms. I had the good fortune to meet a man there by the name of Leland Atwood who was as close to being a genius as any man I have ever met in my life. Lee was Fred's principal draftsman. Lee had been David Adler's chief draftsman, as had Paul Schweikher. I have memories of the term "chief draftsman" in both cases. In all events, they were both very competent people. Brother Bill [Keck] occasionally came in the office. I don't know what he was up to at that time. I'm trying to remember other names. I'm sure they will come to me; I just haven't thought of them in a long time. The environment there was very much around the Century of Progress, 1933, 1934, because Keck had designed the House of Tomorrow.

[Tape 3: Side 1]

Blum: You were talking about the Keck office and the fact that they were very much involved with the production of the 1933-1934 Century of Progress.

Goldberg: The office was very small since there really was very little architectural activity due to the depression except for the fair. The fair and all of the activity around the fair—the construction of the House of Tomorrow and in the following year of the Crystal House done by Keck's office—was very much a continuation of my Bauhaus experience. When I say that I mean that they were extremely curious about extracting from me what little I could contribute from my time at the Bauhaus and its vocabulary. Particularly the House of Tomorrow as related to the furnishings and the structure and the whole presentation of a new world—accompanied at least by three-wheeled automobiles—was very much a continuity of the philosophy of architecture that the Bauhaus had proposed. I've often wondered why Fred Keck never designed another house like the House of Tomorrow. Of course, later on

when Bucky Fuller designed prefabricated houses, Lee Atwood moved to Kansas with him and was his chief factotum, as Lee described it.

Blum: Keck's factotum?

Goldberg: Well, he was both Keck's factotum and Bucky Fuller's factotum because, as you know, Bucky Fuller was not an architect. Bucky was a thinker and perhaps a self-identified inventor, but Bucky himself depended upon Lee substantially to develop the architectural details that were so important to a new kind of space.

Blum: You said that Bucky depended on Lee.

Goldberg: Yes. Bucky depended on Lee. Certainly in Keck's office, Lee was a very big factor as well in the invention of detail and of the development of the house.

Blum: Fuller had by that time already designed the Dymaxion house. It had been published.

Goldberg: Fuller had conceived of a Dymaxion house. Lee Atwood described the development of the details of the Dymaxion house—the tension structure, the inflated floors, the centralized plumbing and mechanical—all of these things Lee described not with a sense of self-promotion, but with a sense of describing the kinds of things that he was doing with and for these other men. Lee and Bucky Fuller were very close friends, and as I have previously mentioned, when Bucky Fuller developed the ability to produce a prefabricated house, he asked Lee to join him. It's very important, it seems to me that the vocabulary—the industrialized vocabulary—the sense of invention, the sense of creating a new way to live, the idea of creating new spaces, a new space flow—these were things which were typical of the environment of the Century of Progress as a totality in 1933. There was an enormous awareness of discovery and of the creation of a new world.

Blum: It's so interesting you say that because some people have said it was an absolute political farce and it brought nothing new. It just put new facades on old buildings, and it had absolutely no influence.

Goldberg: I would say that in terms of farce, that's ridiculous because the Dymaxion house, or the House of Tomorrow, was not the only architectural invention. There was another building that I think was designed by Holabird and Root. It had a suspended roof that breathed. I think it was called the transportation building, the Travel and Transport building. I can remember the new mathematics that were so vividly illustrated by models. There was, I believe, also a new hospital that was built there.

Blum: On the grounds? Do you remember more about it?

Goldberg: Yes. It was a one-story demonstration of a new type of hospital. It was done as a promotion to encourage people to spend money for admission so as to pay for the cost of the building. I can remember the building was either octagonal or round, or whatever it was. I don't remember how the hospital was organized, but it was a new way of caring for people, purportedly. My interest in it at that time was certainly not very substantial, but it was there.

Blum: But it must have hit you at some level, because of what you went on later to do yourself.

Goldberg: Well, conceivably I stored some of those memories and they're just coming to the surface now. But I also remember vividly the English Village where they had reduced Shakespeare to half-hour sessions.

Blum: Everyone seems to remember the French Village. You talk about how you remember this atmosphere with a sense of discovery and excitement. You were sort of surrounded by it in the Keck office as they were producing their houses for the fair. What did you bring to the office?

Goldberg: Oh, I think I brought a little free labor, which they weren't able to use very effectively—I made sure they weren't—and I brought a kind of nuisance value because they were very kindly teaching me the things that they thought I ought to know. If I brought anything to the office it was really a reinforcement of their own interest in a new world of architecture.

Blum: Neither George Fred nor Bill had been to the Bauhaus in Germany, and it was only later that they connected with Moholy-Nagy and the new Bauhaus school in Chicago.

Goldberg: Yes. Of course, Moholy was not considered by Mies as either entitled to direct the Bauhaus or use its name. He was not entitled to the name. As a matter of actual fact, Moholy's role at the Bauhaus had a time frame that, in a sense, had already become part of the history of the Bauhaus; the active development of Bauhaus concepts and ideas continued by Hilberseimer and Mies were different.

Blum: Are you talking about his value to the German Bauhaus?

Goldberg: Yes.

Blum: But you also alluded to sort of a sympathetic view in Keck's office that was very consistent with what you were thinking.

Goldberg: Oh, very, very. It not only was a sympathetic view, but it made me feel as if that was the only architecture to be developed in the near future. In other words, the Bauhaus was not a German curiosity but was rather a part of a whole river of modernity that was flowing forward and that was soon to flood the whole country. I must say that it wasn't until I had a little more experience with the outside world that I began to realize that everyone did not agree with the architectural vocabulary of the Bauhaus. It wasn't really until Mies's personal influence in the buildings that he built here in Chicago, to begin with, that the industrial style, if you will, really took off.

Blum: Could we go back to the Keck office for a minute. You said there was Lee Atwood and the two Kecks. Who else was there? A lot of people claim to have been there, but I don't know whether they were there in the same time frame as you. Who else was in the office when you were there?

Goldberg: Those are my primary memories. Paul Schweikher, of course, was a very good friend of Lee's, and I left Keck's office to work for Paul Schweikher as an apprentice.

Blum: Paul and George Fred Keck had been engaged in some solar studies the year before, in 1932.

Goldberg: Yes.

Blum: Was there any concern for solar energy and things of this sort that were being studied as Keck's houses were being designed?

Goldberg: Yes. Beginning at the Bauhaus it was a perfectly normal thing to study sun angles and to study the effect of sun angles on heating and on just the well-being of the inhabitants of a house or an office. Certainly I can remember the continuity of concern in the Keck office, but it never seemed like a special activity at that time, any more than studying the strength of steel is a special activity. It was all a part of the contemporary vocabulary. I suppose that the later interest in solar energy has made it seem like a late discovery, but that isn't true. I remember Paul Schweikher's activity using salt as a storage device for storing heat—I'm not sure that I recall the details of what Paul discovered. I can also remember with more complete accuracy his idea of flooding flat roofs.

Blum: I think that was something the Kecks actually used in houses and buildings that they constructed.

Goldberg: And indeed so did I, and indeed so did Paul Schweikher. I don't know which of them discovered that, or if any of them discovered it or simply adopted it from somebody else's discovery.

Blum: I think the Kecks used it much more frequently than Paul did. But was it something that was in the air for architects looking for new solutions?

Goldberg: Yes. You can tell by my memory of it that as an apprentice I certainly was attracted by the idea of storing water on a roof.

Blum: What about the furnishings for some of these fair houses; for instance, the Kecks?

Goldberg: I began, myself, to design furniture at that time, and I can remember working or showing my designs to Lee Atwood and consulting with him. Marianne Willisch is another member of that group who designed a great deal and who continued for many years to pursue that. She had come from the Vienna *Werkbund.*

Blum: The Kecks worked with her many, many times. Didn't she also have a furnishings store in the Diana Court building?

Goldberg: She may very well have. I don't remember it. I can remember Katherine Kuh's gallery in the Diana Court building, but I don't remember the furnishings store.

Blum: You mentioned Bucky Fuller. How did you meet him?

Goldberg: I think I met Bucky Fuller either through Lee or through Rudolph Weisenborn. Rudolph was an avant-garde painter in Chicago in those years, and I can remember a four-hour lecture by Bucky in Rudolph's studio.

Blum: Was this just a conversation that became a four-hour lecture?

Goldberg: I think it was that. But Bucky and I in later years, particularly after World War II, tried to do some work together. We tried to design an auditorium in place of the McCormick Place auditorium, but that never took off. It was to be built at a different location than the Near South Side location for the McCormick Place.

Blum: How do you remember Bucky Fuller as a person?

Goldberg: Oh, he was an absolutely ideal friend, and stimulating. I think stimulating was the best experience I had with him. You could never spend any time with Bucky Fuller without coming away sort of enriched with new ideas of your own. He was forever discovering new, exciting experiences in absolutely commonplace environmental experiences. I'm trying to put it together, but you can see I'm struggling because it's not an ordinary thing. You could be with Bucky and he would see things in your surroundings that were absolutely so commonplace but so unusual in their principles that they became a kind of launching pad for new ideas. He was a wonderful, wonderful person to be with.

Blum: You mentioned a three-wheeled car, his Dymaxion car. Was that at the fair?

Goldberg: That was, I guess, at the House of Tomorrow.

Blum: Was he ever in Keck's office?

Goldberg: I never remember him as having been in Keck's office while I was there, but he may very well have been.

Blum: You mentioned Rudolph Weisenborn, and certainly today as we rediscover Chicago's art history, he was one of the most avant-garde painters at that time. How did you meet and come to know him?

Goldberg: I think this came from just the community that grew up around the depression. Very few people remember that the depression was an exciting time.

Blum: Exciting?

Goldberg: Yes. Everything was reduced to such fundamentals that there was every attempt to find—and forgive me if I use the word truth in this connection—but the idea was that for everyone there would be a new world, and the new world became possible because the old world had failed.

Blum: Could you give that idea a starting date in your mind?

Goldberg: It certainly wasn't earlier than 1930. In 1930 we were very much the way we are today. We believed that this unbelievable collapse was only a temporary thing, that it had no real substance, that it was an unfortunate collision of misadventure. One misadventure colliding with another one produced that kind of thing, and as soon as the accident got straightened away and the ambulances took away the injured, we'd be back to where we were and we could resume our trip. The fact that the world had undergone a fundamental change was not easily recognized.

Blum: Many people have talked about this, but never as early as you are describing it. They have talked about it, I suppose, mostly related to Mies and the end of the Second World War and this whole idea of rebuilding and creating something better than before. But your awareness is about fifteen years earlier.

Goldberg: It was there fifteen years earlier.

Blum: But was it really a serious attempt at that time?

Goldberg: Among certain people there was no question about the fact that it was a

serious attempt. I don't think that the House of Tomorrow, for example, simply emerged as a structural curiosity. It was meant, really, to introduce to people a new industrialized world and the benefits of such a world and the rejuvenation that the economic world could have as a result of a new technology. But you must also remember that this was meant to put an end to classical aesthetics, particularly an aesthetic based upon the Greek orders and historical pattern of architecture.

Blum: It just occurs to me as you speak about this that Mies did some things in the early twenties that were never built. In fact, when he did come to build skyscrapers—and I'm thinking of the glass skyscraper—they were different. This raises the question in my mind about the relationship of something that is strictly experimental and what is intended to actually be built. I wonder if maybe the House of Tomorrow and the Crystal House weren't done in that way, although they were actually constructed. But could they have just been an exploration in experimenting with new ideas?

Goldberg: No. Certainly there was the idea of experiment, but it was not research. It was an experiment. It was applied research, if you will. It was meant to be a statement that people could live this way. It was meant to be a statement that if you use a substantial amount of glass, for example, and you use lightweight steel framing, as in the Crystal House, that you could develop another way to live and you could use resources, particularly solar resources, more effectively. I don't think anyone was simply building playthings for the admission fee to enter these places. I think these were meant to be statements of a new way to live, of a new world to come—as was Bucky Fuller's three-wheeled automobile. It was not just a way of putting a motor on a tricycle. I think that what you are touching on now is infinitely more profound than just examining Keck's office. What you are touching on now, at least in my opinion, is the emergence of the nineteenth century into the twentieth. We have always looked on the nineteenth century as being something that was past, historical. But the search for applied science, for trying to discover universals, for the discovery of industrial applications into daily living that

characterized the later part of the nineteenth century is really what you are looking at, and it has a continuum. Granted, just prior to World War I there was an awful lot of kitsch and what one might call bourgeois values, particularly in urban society, but this nineteenth century search for universals and for discovery of ultimate truths by application of scientific methods was always in the background. I think what you are looking at in these two houses is simply an emergence of what went on a number of years ago. I mean, a cultural lag of fifty years in architecture is not excessive. We saw it with the steel frame and the glass curtain wall. I mean, its emergence in the sixties and seventies and eighties was not because it was newly discovered; it's because it took fifty years from the thirties to start using these structural methods. And perhaps we ought to be grateful for the fact there is, because there is time to shake out the good from the bad. I think also that we have not seen the end of this. We've taken a deep breath of some silliness—laughing gas, if you will.

Blum: Are you talking about Postmodernism and Deconstructivism—that phase?

Goldberg: Yes, all of these nonsensical things that have become fads. But I think that perhaps this is because architects don't understand their role in creativity themselves. I think architects think they design for clients.

Blum: You bring up the underlying meaning, perhaps, of what we were talking about, and I was also trying to get at what the creative process is all about. I can't imagine it just coming full bloom in the beginning. That's why I'm suggesting that maybe some of these attempts were explorations into an area on an experimental basis.

Goldberg: I hope you're not looking for the final answer on what the creative process is about, because I think you're going to spend quite a bit of the rest of your life doing that, then. It's a long search. I think you will share that search with Plato and Aristotle and a number of other people who have also looked for it.

Blum: But I was thinking about what you said about Keck and relating it to your own career, thinking that this same kind of process is, I'm sure, different in everyone, but perhaps follows the same kind of overall pattern.

Goldberg: Well, I don't think anybody sits down and says he's going to be creative. If you do some things, you have a chance of being what the rest of the world calls creative. Much of it is accident, much of it is intent, much of it is the way the world sees it, and certainly we both recognize that the public has various ways of receiving creativity, even if it exists. In some years, what is creative in other years can be condemned as destructive or whatever the opposite of creative is. If you will forgive my saying, you are trying to use the Crystal House and the House of Tomorrow as evidence of something that is more profound.

Blum: I'm raising the question.

Goldberg: Okay. I think the question is absolutely justifiable and deserves examination. What I am trying to say here is that the origins of the House of Tomorrow—what I consider to be the origins, the things that permitted Keck and Fuller and Lee Atwood to design housing of the future—of the possible future—were quite different. Keck and Atwood were exploiting a new technology. Fuller was conceiving an invention of new space and a new way to construct enclosed space. Don't forget that Lee Atwood had been chief draftsman for whom? For David Adler. Lee had been trained to take an idea from Adler, an invention, and go with it—to build inventions.

Blum: The classical architect.

Goldberg: Adler was a classical architect, a man who probably has received too little credit for the quality of his work and the quality of his design, but in another vocabulary. It was meant for another society and it was meant for another usage. But you might better ask what permitted Lee Atwood, for the sake of discussion, to move from David Adler to such adroitness in a totally different

vocabulary, to Bucky Fuller. Now, Paul [Schweikher] had gone off to Yale. Paul had worked for David Adler also, and Paul went off to Yale and absorbed some ideas from other people very rapidly. Lee did not do this. Lee was entirely his own man.

Blum: Do you know where he went to school?

Goldberg: I have no idea. I know he grew up in Michigan. He was extremely skilled in terms of painting or drawing. He could make wonderful Paul Klee drawings, he could make wonderful Corbusier drawings or wonderful Kandinsky drawings or Miró drawings. He had an enormous, fanciful imagination. But what permitted him to change his vocabulary so skillfully? I think it was a profound interest in people and a profound interest in realizing that we were not going to pursue any longer, at least in his world, the application of style to an industrialized method of building.

Blum: You talked about the Bauhaus, and I see it as a consistent thread in your work and your career and things you've said. Do you think that in Keck's mind and in Lee Atwood's mind there was the same type of social concern that you said you saw at the Bauhaus, you felt at the Bauhaus, you learned at the Bauhaus?

Goldberg: I don't think it was so explicit. It was not so well structured. It was not so well organized in their minds because, in the final analysis, America has a kind of political naivete—at least it had in those years. We're talking about the thirties and the depression and prior to World War II. All European people are political philosophers. You scratch one and you get some theory or another that may be fifty or a hundred years old. That isn't true in this country. People don't relate to the history of their political development, and that may very easily be because we have had a much more consistent political environment here in this country for two hundred years. We don't have that much history, but we have an infinitely longer history of democracy than they had, for example, in Germany prior to Hitler. I think

Germany had known the democratic form of government for a maximum of ten years before Hitler arrived. We are seeing this now in Russia, where we have several generations of people who have never known capitalism, and we are looking at these people as if they were in a zoo. We want to see how they perform. The same thing, to a certain extent, was true with the thirties in Europe, but it gave the Europeans a structure within which they could exploit, develop, create and present a finished product—a somewhat finished product—to the rest of the world. That, I think, is what Lee and Fred Keck picked up, and Paul Schweikher as well. I think Paul Schweikher, of course, was much more affected by the romance of the Prairie School than Lee or than Keck, who were, for me, much more sympathetically affected by the industrial world.

Blum: You said after you were with the Keck office you went to work for Paul Schweikher. How did that occur?

Goldberg: I don't exactly remember. I think that Paul had some work to be done. It was another experience. I don't exactly remember why I shifted from Fred Keck to Paul. Bill Fyfe was in Paul's office, and Paul had his office at that time in his apartment at the Marshall Field Garden Apartments. He had just won the General Electric competition with a certain amount of questioning.

Blum: That was in 1935, and that seemed to be the event that put him on the map. But there was a charge that his design had been plagiarized from a California house that was already under construction by Harwell Hamilton Harris. That has come up periodically over the years. What do you think?

Goldberg: Oh, I had absolutely no interest in it because the house itself was not the kind of house I really wanted to learn about from Paul Schweikher. In those years, Paul was a very driven and driving man, and he was excellent training for me. He was highly disciplined. He was interested in some of the exploration of space that was common to Mies, common to Frank Lloyd Wright. Paul was much more influenced by Frank Lloyd Wright than Keck or Atwood. His

rather special interest in the use of natural materials was something which I could absorb because it was not in contrast to, but it was an extension of, an interest in the use of the natural form of material as a vocabulary—whether it was manmade material or whether it was a more natural material like woods and bricks and clay materials and things of this sort.

Blum: He hadn't done much that really attracted any attention up until 1935. What did you hope to learn from Paul?

Goldberg: Architecture, how to be an architect. His sense of style and his sense of pattern were contrasted with what I had learned from Lee and Fred Keck. He was doctrinaire, but doctrinaire in a totally different way. He doctrinaired, as I say, much more in what we have come to call the Prairie School, and also in the development of patterns in a way which neither Lee nor Fred Keck involved themselves in. I mean, in the final analysis I suppose what I wanted to learn from him was the practical aspects of being an architect.

[Tape 3: Side 2]

Blum: There is a story that I have heard, and maybe it's apocryphal, that you worked for Paul and slept in the room downstairs in his house? Now, his house was not built until, I think, 1938. Is there any truth to the story?

Goldberg: That is not true. The house was partially built, I think, prior to 1938. Paul would unquestionably have given you these dates more accurately than I can out of my memory, but on one occasion I went out and visited with a young girlfriend of mine. We visited the parts of the house I had partially participated in designing. I had designed some window details for Paul's house, and when I say I designed them, I drafted them. Paul would hang over my desk and say, "Do this," and so on and so on. We went out and found the house, and neither Paul nor Dorothy was there.

Blum: Were they living in the house at the time?

Goldberg: They were living in the house at that time, and they had been away. If it was 1938, that was later than I would have thought, but it's not impossible. I remember that there was a very large Japanese bathtub that Paul had installed. I had been discussing this, and I wanted to show it to my friend. So with my knowledge of the window detail, I succeeded in opening a window and sliding through a window to get into the house, at which time we explored the various details of the house. Among the details we explored was the bathtub, and I actually took a bath. I had been out of the bath, fortunately, for some short period of time when Dorothy and Paul arrived. Fortunately, also, we were dressed. Paul, I think, was less shaken by my presence in the house than Dorothy. Dorothy was, I think, angry and so we left shortly after their arrival. But they did not ask us to stay for tea or anything else. I didn't think I was doing anything other than showing the house.

Blum: Well now that you've set the record straight—I never heard your story before. You were quite a prankster. That's quite a wonderful house.

Goldberg: We just went back there for the first time in years at Martyl's [current owner] invitation.

Blum: I didn't see it in the thirties, but I know how conscientious she's been about keeping the house in what she knows to be its original condition.

Goldberg: I am, by the way, restoring a house that I designed in 1938. I am helping somebody do that now, and it is quite unlike Paul's house, I am happy to say.

Blum: Explain what you mean.

Goldberg: I am happy because really what I was thinking of as being a house in 1938 was quite different from what Paul had designed for himself in 1938 or 1937 or whenever it was. So whatever was going on in my mind at that time was not really to replicate a kind of cross between a David Adler and a Frank

Lloyd Wright expression of prairie architecture. I'm not being critical of Paul, I want to hasten to say. I am simply commenting on the fact that whatever Paul's vocabulary was for those years was certainly not the vocabulary which I had.

Blum: What house are you now helping to restore?

Goldberg: It's on the South Side of Chicago on Greenwood Avenue. I had designed it for Frank Katzin in 1938.

Blum: What was your vocabulary in 1938?

Goldberg: It was much more Miesian, to the extent of the use of space and spatial devices. Of course, in addition this was a house for children and Paul's was not.

Blum: They had one child in the house—I think a late arrival.

Goldberg: I didn't realize that.

Blum: The Katzin house was also a city house, and Paul's was a suburban house. Did that make a difference?

Goldberg: The Katzin house was a city house on a fairly large lot. It was on a lot that was a hundred feet wide. The living room is sixty-five feet long, and so the house was not so constricted as it would have been on a smaller piece of land. As I say, the use of space is quite different from Paul's, but I learned a great deal from Paul.

Blum: Was Winston Elting his partner, or was he in Paul's office at the time?

Goldberg: Not at that time. I think Win Elting joined Paul just about the time I struck out on my own.

Blum: Who was working with Paul?

Goldberg: Bill Fyfe was working with Paul, and I, in the office in his apartment.

Blum: Was Lee Atwood living in that building or living with the Schweikhers at the time?

Goldberg: Not to the best of my knowledge. I don't think I know where Lee lived. He may have been living there, but I really don't know. Then Paul moved to Ontario Street. When he came back from Japan he opened an office on Ontario Street. He moved from his apartment to that office, and I worked in that office for a while before I struck out on my own.

Blum: You said that you did some tutorial work to get a better grasp of engineering in English from some professors at IIT. Did you also study with Frank Nydam?

Goldberg: Yes, he was a Scandinavian and he was in Chicago. I studied engineering with him. He ran a course for training structural engineering students.

Blum: Did he teach at Armour?

Goldberg: No, he was not at Armour. He was a consulting structural engineer who did some consulting work for me after I opened my office, and he also did some tutorial work for me and taught me structural engineering.

Blum: Didn't you think you had learned that at the Bauhaus in Germany, or that you didn't understand what you had learned?

Goldberg: One understands what one learns, but there are different words for it. Although structural engineering is a requisite, I believe, for an architect, I wanted to have as much of it as I possibly could because the new

architecture, unquestionably, brought on new structural forms, just as new mechanical engineering brought on air conditioning and various other kinds of changes. It was helpful to have as much engineering under your belt as you possibly could gather in order to be able to design new things that you wanted to develop.

Blum: Were you studying with Nydam at the same time you were working for Paul Schweikher?

Goldberg: Probably. I really was aiming to get my license. I needed three years of apprenticeship to get my license, and I needed enough knowledge to be able to pass the structural portion of my exam.

Blum: During the same year, 1935, Le Corbusier lectured at the Arts Club.

Goldberg: I heard him.

Blum: What did you think?

Goldberg: There was a certain amount of built-in animus which I had as a result of the Bauhaus where we were, in a sense, schooled to regard Corbu as a painter, as I mentioned. Corbu at that time, as I recall, was lecturing on urban planning, and I was comparing him to what I had learned from Hilberseimer. The two men were quite different in their approach toward urbanism. I think in retrospect Corbu was much more concerned with the formation of community through—this isn't totally accurate, but if I had to say something about it, it would be that he was much more interested in community formation through humanism, and Hilberseimer was much more interested in community formation through living patterns caused by sun or wind or traffic patterns or the functionalism of the urbanism. I think Corbu made a considerable pretense of creating a functionalist plan for urbanism, but I think that his demonstrations, such as in Marseilles, were quite different.

Blum: Is that the way you think you felt at the time? Did you continue to dismiss him as a painter who dabbled in other things or did you take him seriously?

Goldberg: Well, in the first place I'm not sure I really knew enough about urbanism to be a reliable critic. I only hope I have never written or said anything that would embarrass me from those years.

Blum: How do you think that he was received by Chicago people?

Goldberg: He had an enthusiastic reception, I believe. I think, if my memory serves me, the newspapers printed some things about what he had said, and I think he was regarded as a competent urbanist.

Blum: If he gave his lecture in French, who translated?

Goldberg: I don't remember.

Blum: Did you understand French?

Goldberg: I understood some French. I'm not sure that I understood everything that he had to say, obviously, but I think either his lecture had been translated and printed or—I don't know. All I know is I attended the lecture. If my memory serves me, Gilmer Black, whom I was later associated with in a kind of mild way, took Corbu around, but I don't remember quite how that happened either.

Blum: Corbusier gave two or three lectures in the Chicago area.

Goldberg: It's the one at the Arts Club that I remember.

Blum: The one at the Arts Club has been the best documented, and I wonder if it was not the same lecture repeated to three different audiences. One was for the AIA and the other, I think, at the University of Chicago

somewhere—maybe the Renaissance Society.

Goldberg: I can't really tell you.

Blum: You talked about Buckminster Fuller's Dymaxion car, and you've also said that you experimented with designing a car. Was that in this period?

Goldberg: Yes.

Blum: Why did you explore the possibilities of designing a car?

Goldberg: To begin with, if you go back to the Bauhaus period in Germany, the role of the architect was supposed to be that of designing everything for society—pots, pans, automobiles, clothes, dance, furniture—also buildings. The architect is meant in that tradition to be capable of and interested in the design of everything that has to do with living, so that to design furniture is not alien for the architect. To design an automobile had its precedent in Germany. I've forgotten who designed what car, but there are some evidences of automobiles having been designed in Europe.

Blum: Corbusier designed one, and other people have, too.

Goldberg: Yes. If you can't design buildings because there is no building, then you design furniture or you design whatever you can. It was relatively easy and challenging, of course, to design an automobile because the automobile at that time was such a simple device. But to start designing rear-engine automobiles, which I did, and to develop new systems of springing and supporting kinetic motion, as contrasted to static design which is what one goes through in buildings, was appealing. Beside that, I thought Bucky was wrong in designing a three-wheeled automobile.

Blum: How many wheels did yours have?

Goldberg: Four.

Blum: What did you do with the automobile you designed?

Goldberg: I think I carried it through to making a model, which we drove. It was an extremely effective and efficient car. We also made a mock-up of the body, but I could not raise enough money to build a finished body. My body was only a very rough mock-up, and I just had to abandon it.

Blum: Was yours a rear-engine like that little Volkswagen Beetle?

Goldberg: Yes, but it was before the Beetle and it was before the Porsche. I didn't invent a rear-engine car; it just came out of weight distribution. There were other rear-engine cars that were tried. But I did invent a method of springing, which I think in various forms has emerged. I thought that the existing automobiles of those years were poorly suited to use in a city. Someplace in my files is an article condemning the production of Detroit.

Blum: Did you patent your invention or discovery—your springs?

Goldberg: No.

Blum: In 1935 you also designed your first house for Harriet Higginson.

Goldberg: Harriet Higginson—a canvas-covered house.

Blum: I never understood what a canvas-covered house was. Will you explain?

Goldberg: Well, a canvas-covered house was meant to provide a simpler house than we were currently constructing at that time, with the use of shingles or wood siding and things of that sort. It was also meant to provide a house that was more airtight than the houses that were being built at that time and certainly was a less expensive house.

Blum: Was it livable when it was cold outside?

Goldberg: Oh, very. Yes, it was insulated, but the exterior of the house was canvas. It was canvas that had been shrunk very much the way canvas airplanes had been built. You nailed the canvas on and then applied a material to coat the canvas that actually shrunk it tight so it looked more like a concrete house.

Blum: And then could you paint it?

Goldberg: Yes.

Blum: What was the canvas nailed to?

Goldberg: The canvas was nailed to wood framing, and it was covered with plywood on the interior. It was a very simple house, and it was heated by a fireplace in the center of the house. At that time there had been built a shell that heated air from the room very efficiently in the fireplace. You built the fire inside this steel shell. You put brick around the steel shell and then built a fire in the steel shell, and that spilled the air into the living room and into the bedroom. It was a very effective and very warm house.

Blum: How did you get the commission?

Goldberg: Harriet Higginson was a child of the depression. She came from the, I think, well known Higginson family of Boston, which was a banking family, and Harriet came here to Chicago to strike out on her own. She decided to be a customer's woman on LaSalle Street.

Blum: Was she a broker?

Goldberg: Oh, yes, she was a broker. There was some activity in those years in the stock market in spite of the depression. Harriet wanted a simple house that she

could keep clean with a garden hose, inside and out, and I designed that house for her. She was one of the early feminist spirits. She helped Walter Paepcke with the development of Aspen, to a very modest extent, I think. I don't know what year that was. She also was Sewell Avery's right arm. She became his assistant at Montgomery Ward.

Blum: How did she come to select you as her architect?

Goldberg: I have no idea, except that she thought I had the kinds of ideas about living and design that she believed would give her the house that she wanted. She knew it was my first house and that I had never done anything like that.

Blum: Did you know her socially or from your family connections?

Goldberg: I just knew her socially.

Blum: About that time, the following year, Moholy came to Chicago and opened what was then called the New Bauhaus.

Goldberg: Yes. Mies had schooled me on the fact that Moholy was not entitled to use the Bauhaus name. I didn't realize as much about Bauhaus politics while I was in Germany as I came to know about them in Chicago.

Blum: Did you know what you know now when Moholy came and selected that name for his school?

Goldberg: No.

Blum: What did you think Moholy was opening? What kind of ideas did you have because the name was the same and that it was coming to Chicago?

Goldberg: Chicago at that time had a seminal environment, and I don't think that among us we were—when I say "us" I mean the people whom I found to be

friendly and interested in the kinds of things I was interested in, who were very kind to me in making it possible for me to either work or at least learn. I don't think we were a group who judged what anybody else was doing. Whatever anybody else did was just fine.

Blum: Who was the group you refer to?

Goldberg: In those years I lived on Michigan Avenue and Pearson Street. There was a very big old stable and garage there at the northwest corner of Michigan and Pearson, adjacent to Tower Court. It was a commune, really, as we have come to identify them, but I think about forty or fifty people lived in that building very inexpensively, and I shared a studio with Edward Millman.

Blum: He was an architect?

Goldberg: No, Edward Millman was a painter. In fact, Sue Larsh sent me a discovery of some Millman paintings out in the Northwest that suddenly acquired some kind of value. I think I still have a few things here that Edward Millman gave me at various times. We were friends.

Blum: Who were some of the other people in this complex?

Goldberg: They were mostly painters. Richard Florsheim used to come to dinners there. We all sort of ate together and contributed food on a communal basis because in the first place it was pleasant, and in the second place it was what we could afford. And so, it was a center for eating and talking and drinking and exchanging ideas. Edgar Miller used to come there on occasion. Julio de Diego came there often. Mitchell Siporin, who later became dean of art at Brandeis, was there a great deal. Lester Marzlof, who was the scene designer at the Goodman Theater, lived there. Caleb Harrison, who started to build the canvas house, lived anyplace.

Blum: What do you mean? He started to build the canvas house?

Goldberg: Well, he started to dig the foundations of Harriet Higginson's house.

Blum: He worked for you?

Goldberg: He worked for Harriet. He had been the nephew or the great-nephew of Mayor Carter Harrison of Chicago.

Blum: Was Weisenborn there?

Goldberg: No. Weisenborn lived on Irving Park.

Blum: Along with eating and sharing space, was there an attitude, a spirit, among all of you that was, perhaps, sympathetic aside from just getting along? I'm talking about professionally. These were painters that you've mentioned, people in the arts.

Goldberg: Yes, but some of us worked in the private world and some of the painters worked in the WPA artists' movement. I would say that what I tried to describe about the world's fair was prevalent all the way through those years, those pre-war years. It was a wonderfully exciting, inventive, heady, creative moment of thinking and working, developing new ideas in every field. I can't think of any musicians who were in that group, but certainly in terms of painting and sculpting and architecture, we were all of a piece.

Blum: Who were some of the other architects that lived there?

Goldberg: I don't remember that there were any other architects who were living there, but that doesn't mean we weren't banding together in various other places or that they didn't come and visit.

Blum: It's interesting that you were with painters. Did it just sort of happen that way because you found this room and roommate or did you seek it out

because it was a painters' enclave?

Goldberg: You're asking me questions I didn't think about at the time. It seemed quite natural. Certainly the world of painting was much more active than the world of architecture could have been. I mean, I was trying to, for example, get jobs in architectural offices. I can remember going into Holabird and Root's office, and I think they had three or five people in the whole Holabird and Root office.

Blum: Was this during the depression?

Goldberg: Yes. And I went to see Larry Perkins, and Perkins and Will had two people—Perkins and Will. It is difficult to visualize a world of ideas that had very damned little work that paid anything.

Blum: What was being built, or was anything being built?

Goldberg: I don't recall that anything was being built, except at the fair. There were no buildings that I can think of that actually were built. There were a few buildings that were built, really, at the end of 1929, and I don't even remember which those buildings were.

Blum: Then you were pretty lucky to get that commission in 1935.

Goldberg: Oh, very. Yes, very. My fee was $100.

Blum: Did you think you were well paid at the time?

Goldberg: I don't really remember, but obviously I was satisfied.

Blum: When Moholy opened the New Bauhaus, people on the staff like [Alexander] Archipenko, Hin Bredendieck and Gyorgy Kepes were with him. Did this cause any excitement, any stir? Did it add to the atmosphere that you've

described so well?

Goldberg: I enjoyed Kepes, whom I knew somewhat at that time. I went to visit Moholy and pay my respects to him, but there was no chemistry between us.

Blum: Did he know you had been at the Bauhaus in Germany?

Goldberg: Yes. The New Bauhaus had a great deal of fashion to it that I found it a little bit put-offish.

Blum: What do you mean by fashion?

Goldberg: Well, you know, it was funded by people who could afford to fund it, and it was almost as if it were another branch of the Art Institute.

Blum: But these were people in industry as well, and manufacturers. Was there a similar sense between the people in manufacturing who funded the New Bauhaus, or the Chicago Bauhaus, and the ideas of the German Bauhaus?

Goldberg: To that extent there was no difference, except that the old Bauhaus, the German Bauhaus, had been supported by the state, supported by the government, and that was not forthcoming here. Here you had people like Walter Paepcke.

Blum: Was he considered to be connected to the Art Institute?

Goldberg: No. I guess what I've said is not very clear. The New Bauhaus had certain overtones of social activity. It was fashionable. I don't want to do the people who supported the New Bauhaus an injustice by saying that that was the only reason they did it. It wasn't. I think they were very sincere people, and I think Walter Paepcke's work was absolutely smashing in bringing a sensitivity of a new art form to the industrialists. Their work in color, for example, was second to none in the world—Germany or any place. The

establishment of new color standards for all industry was just unbelievably useful and wonderful. He employed good people, and his endorsement of Herbert Bayer and Moholy and bringing them into industry I think was just wonderful. But there was also, as I say, a kind of fashionable environment to the New Bauhaus that went along with it. It was different from the German Bauhaus.

Blum: It wasn't state-supported, and I suppose if I had to speculate, they had to continue to interest people to continue to fund it.

Goldberg: I am only making an observation. I think that whatever they did was all for the good, but I think that some of the things that Moholy found that he had to do, like using the name Bauhaus without at least clearing it with Mies, could have been done a little more successfully.

Blum: Did you ever hear at the time or afterwards anything about why Moholy used the name?

Goldberg: No.

Blum: From what I've read, it belonged to Mies—the last director of the Bauhaus owned the name.

Goldberg: Yes. This was Mies's position. Have I read those papers or those documents? The answer is no. I suppose Moholy, who had left the Bauhaus, if my memory serves me, in about 1927, certainly had less than the right to just pick up a name ten years later and use it.

[Tape 4: Side 1]

Blum: I have heard the result of Moholy opening the Bauhaus in Chicago was an ongoing antagonism between Mies at IIT and Moholy at the Institute of Design [the Chicago Bauhaus]. Did you have any contact with that,

experience with that , or knowledge of it?

Goldberg: I had only the one experience of discussing it with Mies. It really was a part of the New Bauhaus development, which had less than a major interest for me. I know that Bill Priestley began to teach there—I say I know that; it's my memory that he began to teach there on Prairie Avenue. Bill and I, of course, had known each other and, as a matter of fact, shared an apartment in Berlin for a brief time, and we were and are good friends. But I had no participation in the conflict that arose. In retrospect, I think that whatever gave Moholy his jollies on calling it the Bauhaus and whatever gave people around him the feeling that they were participating in the continuity of the Bauhaus was good. I don't see anything wrong with it. In spite of the fact that it had an enormous amount of industrial participation—that is, industrialists' participation and interest—I don't recall its having had the direct developmental results in industrial design that the Bauhaus attempted to have in Germany. I can remember that there were some tubular steel furniture companies here in Chicago or companies that began to make tubular steel furniture. I can't remember that the furniture industry took off with Bauhaus designs. I was designing some furniture of my own at the time, not commercially but for individual clients. This is all I remember of the thing. But I think it made the word Bauhaus a kind of household word among certain kinds of art and design and architectural circles here, and to that extent it certainly did an enormous amount of good in broadening the vistas and perspectives of the art world.

Blum: George Fred Keck headed the architecture department at the Bauhaus, and he was committed to it for many, many years.

Goldberg: I think that was good, and Fred Keck was certainly a good man.

Blum: As I understand, there was such a difference between the training in architecture at IIT and at the New Bauhaus, the Chicago Bauhaus.

Goldberg: Well, again, I don't think I'm a good person to make comment on that. I come back to the statement that I think I repeated of Albers, how everybody who studied under Mies became a little Mies and copied Mies, and no one who studied under Albers copied him. This is really what I was referring to earlier on a peripheral basis. There is in contemporary architecture, postmodern architecture, Philip Johnson architecture, the International Style architecture—there is that word style. My one cardinal experience at the Bauhaus in Germany was that there is no such thing as style that has a contemporary validity—I've said that badly—that contemporary art forms are so married to the life and society in which they are practiced that the word style is no longer a useful word. It's more than that—it's no longer a useful concept. The people whom I knew at the German Bauhaus vigorously, vehemently denied style. It was a combination of creativity, of sociological development, of political development, of a protest against what is superfluous and false in a social scene. God knows the Germans, with all of their late-nineteenth century kitsch and all the rest of that experience, had every reason to wash it all away. But in this country the word style still means a great deal of desirability. If you can identify style, if you can identify a piece or a painting or music or a building as having a style, you belong to a group.

Blum: Is style a label that historians and others give to a certain way of doing things after the fact, or is it something that's inherent in the creating?

Goldberg: Certainly it is a critic's handle that makes it more convenient to discuss any kind of development. Unfortunately, there are people who believe that the development of a style is inherent in originality or in creativity, and I am referring especially to Hitchcock and Johnson's book *The International Style*, which actually gave a recipe for the style. They actually told people, instructed people much as a cookbook, how you could design in a modern style. The Germans at the Bauhaus, by the way, were very disappointed in Hitchcock and Johnson's failure to understand that the German Bauhaus was trying vigorously to erase style.

Blum: Do you mean past, earlier styles?

Goldberg: No, contemporary styles. The concept of style. To paint in a style, to do music in a style, to dance in a style, to do architecture in a style, to do photography in a style—all of that was false.

Blum: Just for the record, how do you define style?

Goldberg: Since it is, in my opinion, impossible to work without expressing one's own milieu, however one finds it, I might say that it is impossible to design without identity. But style is not identity for me. Style is a kind of self-awareness. It is a self-conscious attempt to utilize, perhaps overutilize, a vocabulary that is an applied vocabulary.

Blum: It would be foolish for me to ask if you think Mies had a style, after what you've said, but would you respond?

Goldberg: I would say you used the word style improperly for this question.

Blum: Rephrase my question.

Goldberg: Do I think that Mies designed in a style, would be more applicable to what we've been talking about. No, I don't think Mies designed in a style. I think he had, without question, a vocabulary of his own, and one can replicate a Mies with a fair amount of faithfulness and still not be a Mies. Skidmore, Owings and Merrill did this for a great number of years, and I know how that occurred in that office, how that developed in that office. But the fine points, the small details, the small innovations still were stylized rather than Miesian, if I can make that nice distinction. I think it's difficult to make that distinction and perhaps a little forced.

Blum: Was Mies and Mies's vocabulary different when he was in Germany than

when he was working in the United States?

Goldberg: Without question it was. It's more intuitive, in a sense. Mies had an early history, as you know, of classical or identifiable or stylized architecture, if you will. What brought Mies forward in the early twenties, some better student than I am of Mies's development would have to comment on. Nevertheless, the post-World War I Mies was a curious one. There is that famous picture of three or four famous artists walking down, I think, the streets of Berlin or the streets of Paris—I forget which city it was. There is Mies in a Hamburg hat wearing spats. He was a typical bourgeois and, to a certain extent, so were the rest of them in that picture. I've forgotten exactly who the people were that accompanied Mies. So you have to understand that Mies emerged out of a relatively typical German upper-middle-class society with industrialist patrons, and there was no reason for him to understand anything else. He was part of the development. But that society that Mies emerged from after World War I became the Weimar society. I point out to you that the most revolutionary society of Germany that produced their first democracy was led by Walter Rathenau, one of their most successful industrialists. He was rich, he was Jewish, he was marrying an industrial background and a relatively bourgeois background to a political revolution. With that political revolution came an intellectual and artistic and perceptive revolution which had begun in other countries as well as in Berlin prior to World War I. The seeds of the artistic revolution were there before Weimar. What was going on, for example, in Holland and what was going on to a certain extent in England, what had been going on in Paris prior to World War I, had produced some message in the German art world and the German industrial world that there would be a future and different artistic development. Now, you ask about Mies's style in Europe. Certainly the Tugendhat house has a new simplicity of vocabulary, but it has an enormous richness of material and sensuality and a strange flow of space, which is a tradition Mies inherited. Mies also could design low-cost housing with a certain amount of simplicity, using brick and steel and concrete and very simple materials and innovative spaces. Now, where did he get those

concepts of spaces? Perhaps from Frank Lloyd Wright, who was, of course, well known in Germany. I am only speculating. I am not saying that that is what he did. But certainly Mies in his spatial explorations was following the trail of Mondrian, of van Doesburg, of Frank Lloyd Wright. Mies, I think, most successfully developed his architecture with the advent of industrial systems such as exposed steel columns and exposed structure and the use of transparent walls. But if you ask, did Mies have a style, the answer is no. He had a vocabulary. He had a target of his own, which was to use the materials of his period and to use them in a very simple, highly regulated, highly disciplined form of spatial and visual organization.

Blum: What you've just said, would you say that that changed when he was in the United States?

Goldberg: It has long been a theory of mine that Mies had a vision of what was America, and Mies had a vision of what he could bring to America. This was comparable to Helmut Jahn, in a sense. I think that Mies understood America to be an industrialized country without a great deal of culture. I have called Helmut Jahn the Bertold Brecht of architects because I think he ridicules, to a certain extent, American industry and the lack of American culture. I think his buildings are an enormous put-on, and Mies's were much more sincere. Nevertheless, Mies felt that he was telling America how to be an industrialized country with an artistic perspective, a creative perspective.

Blum: And in the United States, in Chicago, he inspired so many—I don't want to use the word followers—but students who not only saw him as a hero, I suppose, in many ways more than just professionally. Personally they saw him as a hero, but also professionally they followed his vocabulary. How would you account for that?

Goldberg: I think that to a very modest extent what followed Mies and what Mies symbolized in Chicago was a repetition of what occurred in Germany, especially, but to some extent in Europe more generally, post-World War I.

There was a sweeping away of false values. We were going to do a housecleaning. We were going to use simple materials and achieve a kind of aesthetic beauty out of materials that the Greeks didn't have—out of steel, out of glass. The "less is more" idea came out of the fourteenth century—it was Occam's Razor—and to a certain extent much of what has happened in our period in the twentieth century was a repetition of what happened in the fourteenth century: enormous invention; enormous application of science to a new world; enormous humanism, a rebirth of humanism; enormous fear of catastrophe—the atom compares to the plague; the discovery of the physical world; and a sweeping-away of false values. I think Mies stood for those things. He was a ready-made symbol for those things. There is no minimalism in Jahn's architecture, to contrast the two.

Blum: That's an interesting sense of continuity that you've brought to Mies—the times from the fourteenth century, you see a parallel, and what he symbolized after the First World War in Germany. I assume you are saying he symbolized in the United States after the Second World War. Did I understand you correctly?

Goldberg: Yes. You understood me very correctly, and you must remember that when Mies came here it was 1937 and the world war had not occurred. But what had occurred was the depression, and the depression was our foretaste of war. A restudy of our value system—the superficial nonsense, the style, the decoration of the twenties, even in its so-called modern forms at that time—the Art Deco, the word deco is obviously the diminutive of "decorative"—but the sweeping away of these things and the substitution of what is industrialized, the prefabrication of housing, and the seeking of simplicity in the use of more natural materials. All of that was a mirror of the social revolution that was occurring, which in turn was a mirror of the economic failures that we had gone through and the economic reevaluations we were having at that time.

Blum: You're bringing out so many other factors other than the personality and skill

of Mies. Do you think conditions were such that if there had never been a Mies here, a similar revolution in architectural vocabulary would have happened?

Goldberg: You know, Mies's steel and glass vocabulary is a vocabulary that began in the late nineteenth century. What Mies successfully did was use it to tell people what they wanted to hear. He delivered that message to people. Would others have followed that if there hadn't been a Mies? Well, Corbu had a little bit of it, in a sense, a few years earlier than Mies. His successes came a few years earlier. It's an impossible question. But I think it is significant that both Harvard and Armour Institute reached out for Mies. Someone must have known. Frost, when he sent me to the Bauhaus, reached out for someone. Whether it was Mies or Gropius, or whomever, he reached out for something. So there were seeds of inquiry here. There were seeds of curiosity. On the other hand, when you look at the Tribune competition [1922], you can see how little there was of what would follow in just another ten or fifteen years. Even from the people who made the revolution there was very little sign of what was to follow. The depression, unquestionably, clarified many things very quickly for people.

Blum: Your perspective is a long-range one, and I think very interesting with some of the connections you make.

Goldberg: I continue to search not so much for the historical perspective—I'm not necessarily a student of the historical perspective—I am searching for my own roots. I have developed and emerged as a special interest. Critics have frequently said they don't know where to place me in the mainstream. Am I a sort of a sport, a variation—the Goldberg variation, if you please? But I am satisfied that I have served my society and my time with what is on its way, and I have gone back as far as I can to try to find where that roadway began, where that path began. I have gone all the way back to the fourteenth century, and perhaps a little more recently to the seventeenth and eighteenth centuries, to determine where this word "modern" began and what it means

and how one works within that kind of intent. It's not a framework. It's not a parameter. It's not an implosion; it's an explosion. It is a participation. Roots provide more participation in one's time and in one's society rather than working within a stylistic frame.

Blum: Would that mean that Gothic in its day was modern or contemporary?

Goldberg: Completely contemporary, completely. You excite me when you tell me that because my children were wondering what to do and I tried to get one of my children, especially, to trace the origins of Gothic. The nearest I could come to it was the Crusades; that the Crusades brought back the invention, the perspective, the use of space and engineering from the Middle East, because buildings didn't exist in Europe in that form, or at least not with that kind of rhapsodic exuberance that the Gothic style had—again, here I am calling it style—and that the Gothic, the invention of the Gothic period had. Gothic was a period; it wasn't a style.

Blum: And isn't modern just sort of a floating term? It's a word with many, many meanings. Maybe we've applied it in the twentieth century in a very shallow, narrow way.

Goldberg: We have given it meaning. Modern is us.

Blum: Is it synonymous with contemporary?

Goldberg: All right.

Blum: Can we step away for one moment? We'll still stick with Mies, but in a more practical situation. Franz Schulze wrote in his book that Mies came to the United States in 1937 to explore the possibility of doing the [Stanley] Resor house, and he had a one-day stop in Chicago. He reports that you, Bill Priestley, and Gilmer Black showed Mies around, showed him some Richardson and Wright and Sullivan buildings, and then on the return trip

you and Bill Priestley took Mies to Oak Park and to Taliesin for four days. Would you talk about that, as you remember it?

Goldberg: Yes. I don't remember the one-day occasion, and my memory of that summer was far more a memory of a rather continuous exposure to Mies. The walks I had with him along the lake, I think, occurred some time in that summer. Those were one-on-one experiences with Mies that were very valuable to me as a young person.

Blum: Are these recollections that you have during his short trip here for the Resor house or the following year, which is when he came to Chicago?

Goldberg: It might have been the following year, because I remember visiting with Mies and Bill Priestley in New York where Bill Priestley was working on the Resor house in a small office which Mies had set up in New York, and I was looking at the design of the Resor house there. I'm not reliable in the sequence of what happened. These things in my memory are only events that happened at one time or another during that period.

Blum: Do you recall Mies's response or reaction to what he was seeing, I presume, for the first time in Chicago?

Goldberg: Yes. Our visit to Taliesin was much more vivid in my mind than the other events. John Root at that time was a major factor in the Armour Institute work, and I can remember a number of occasions up on the Tavern Club terraces when my exposure to John Root and to Mies and to Helmuth Bartsch occurred. There was also a group called CIAM [International Congress of Modern Architecture], which John Root enlisted me in, very kindly. I was quite young in 1937. I was twenty-four years old, and these things that were around me at that time in the visits that we had together had a quite different significance to me than they had to these older men. I'm now detouring from your question for a moment, but CIAM, which had its origins apparently in either Switzerland or France, seemed to me to be a totally superfluous thing.

Blum: Was it not the international organization for the promotion of modern architecture?

Goldberg: To me it was an absolutely superfluous kind of nonsense, making again a style out of something that was us. I come back to that concept. Why would you have a special group that celebrated modem architecture when modern architecture was what we were doing?

Blum: What was Corbusier's rationale for having organized CIAM when he did?

Goldberg: Well, I think their struggle was quite different from my own. I think their struggle was the struggle, really, of creating a revolution and mine was just one of living in one, which is later. What they were doing in order to make the change was what I enjoyed as a way of life.

Blum: So if it was superfluous, why did you join?

Goldberg: I guess I wanted to be a joiner.

Blum: I'm somewhat surprised to hear you say that John Root was a member and invited your membership because, to my knowledge, much of his work as a designer was not in a modern vocabulary.

Goldberg: You're absolutely correct, and you bring to mind a story that he told both Mies and myself and Helmuth Bartsch in one of these Tavern Club things. I had forgotten that story. We were talking about the success of being an architect and, of course, at that time I think Root employed perhaps three people or five people in his office, total. Because of the depression there was absolutely no major building. He was telling the story of his great success. He said that he had had an early success because all the designers were using—and I've forgotten whether it was an Italian or a French Gothic reference book—a rather classical and standard reference book, but he had

laid his hands on a Portuguese Gothic book which no one else had. So his proposals for buildings were totally different from the mainstream and clients were coming to him for that resource. I also remember asking him about building high buildings and the role of the skyscrapers. He said he had learned that as clients grew older they wanted taller buildings.

Blum: I've never heard that before. Have you found that to be true?

Goldberg: I'm giving you that little bit of inside information on that period.

Blum: Maybe that's a little insight into John Root's perception of it.

Goldberg: Coming back to Franz Schulze's history of that, Gilmer Black, with whom I was associated very briefly in the kind of role of sharing the office, had been at Princeton and, I think, the University of Pennsylvania for architecture. I came across Gilmer in the wonderful days of friendship that we all had around jazz at that time. [Edwin] "Squirrel" Ashcraft's up in Evanston had become a kind of jazz chapel, if you will. It was more than just a center; it was a kind of religious event every Monday.

Blum: Was this in his home?

Goldberg: Yes, and all of the jazz musicians on Monday were off and used to come to Squirrel's for jam sessions. Most of the figures of Chicago jazz at that time were there. No one had very much work to go back to, so Monday night became rather an all-night event, week after week, and Gilmer was part of that group.

Blum: Was he a musician? Did he play an instrument?

Goldberg: No, Gilmer was an enthusiast, as was I. They needed an audience, and we were the audience.

Blum: I understand that Bill Priestley was a rather accomplished musician.

Goldberg: Bill Priestley was a very good musician and still is. Bill also had a Princeton background, as did Squirrel. Bill and I, as I mentioned, shared an apartment in Berlin for a brief time at which time I watched and heard him teach himself how to play a guitar.

Blum: Did Squirrel have another name?

Goldberg: Edwin. He was a lawyer. He later, in about 1937 or 1938, left his father's law practice, which was very successful—he was a very eminent attorney—and became a member of the OSS [Office of Strategic Services] and went off to Washington and never came back. We saw each other repeatedly and, as a matter of fact, right where you are sitting right now was almost the last time I saw Squirrel. We had organized a jam session one Sunday afternoon, right in this house.

Blum: You said that you met Gilmer Black in that context.

Goldberg: Right.

[Tape 4: Side 2]

Goldberg: Gilmer and I had a great deal of shared interests. Gilmer had designed a house in 1936 for D. S. Colburn, who owned a concrete block company. He designed a house which I think has been published, a kind of cubist house.

Blum: Is this the white one on a corner on Green Bay Road in Highland Park?

Goldberg: I'm not sure I ever saw anything but a picture of the house because it really was part of a Gilmer's earlier thing. Gilmer and I shared, as I said, an interest in the same things and so we struck up a very good friendship and for many years Gilmer was a very frequent visitor in our house. We also shared office

space together. We also worked on the prefabricated houses. The group of us, Squirrel and Gilmer and Ross Beatty, who is still alive and well in Chicago, put together a project of prefabricated houses on some land that Ross Beatty owned out in Melrose Park.

Blum: Could we wait with that, please? We were talking about the few days with Mies when he was here and going to Taliesin. If we could just finish that. Did Gilmer Black come to Mies by way of you, or was Gilmer connected with Mies? I understand Bill Priestley's connection to Mies, and yours I understand. I just don't understand Gilmer Black's.

Goldberg: I don't think there was any formal connection.

Blum: Had he been at the Bauhaus in Germany?

Goldberg: No. Now something came back to me. When Mies came here, and I guess it was his second year back, Inez Cunningham Stark—have you come across that name?

Blum: Was she a writer or art critic or a socialite?

Goldberg: She was a socially active or socially prominent woman who was part of the enthusiasts for the Bauhaus and enthusiasts for the Art Institute and enthusiasts for what the world was going to be. She asked me to give a party for Mies at her house. She had been a friend of Gilmer's, and so all of this came together. We gave a party, but I don't remember just which year that was. You're asking questions of great precision, but the whole thing for me is just a wonderful blur of everyone doing something that was contributive to just moving on.

Blum: It seems that it would be essential for Mies, if he didn't speak English, to have people around him who could help him with the language.

Goldberg: Gilmer had no German and Bill Priestley's German was less than useful, so I emerged as the interpreter—and Helmuth Bartsch, of course.

Blum: Did he go with you to Taliesin?

Goldberg: No. We were at the Tavern Club, and we phoned Frank Lloyd Wright. So, there must have been John Root—or it might have been Helmuth; I don't remember—and I think it must have been Gilmer. It may have been John Root who phoned Frank Lloyd Wright to ask if he would receive Mies and us, because Wright at that time was, I think, rather resentful about the way in which the architectural community had received his work. Because of Mies, Wright was very happy to say "come on up." So we took my car, Gilmer and Bill and I and Mies. I remember Frank Lloyd Wright saying, "You are, you are, you are," and, of course, Mies. We arrived, and it was a wonderful experience because here was all this what I called kitsch up at Taliesin, all of this romantic kitsch—goats grazing on the lawn and rocks that had obviously been brought up because of the romance of having a rocky-covered hillside, the whole appearance of Taliesin. I remember very well driving up the winding road. We walked into Wright's living room, which was a spectacular space, and you know that fireplace of his that was a spectacular accretion of rocky forms, and there was Wright with his white hair coming down to his shoulders. I recall he had on a gray suede beret. Now, having said that, his clothes were a combination of gray suede and blue. I forget what was blue and what was gray, but my recollection was that it was a gray suede beret, and if the people who knew Wright better, obviously, than I do say that he never had a gray suede beret, then they're absolutely correct. Wright stood there against the fireplace and he identified each of us by pointing a finger, "And there you are, the architect; there you are, the dreamer; there you are, the businessman; there you are, the…"—I don't know what the fourth definition was. He pointed us out and he immediately began, I would have said at that time, an exposition of our relationship and his relationship to architecture, which was such a dramatic put-on that by that time I was prepared to resent everything that I saw. In the middle of this tirade, across a

bridge in his living room came a perfectly beautiful—at least from that viewpoint—a perfectly beautiful girl, carrying a pile of laundry in her arms, barefooted. I learned later that she was Wright's niece. He paused in mid-flight, like a dog chasing a rabbit that stops to scratch himself, and he pointed up and he said, "Now there, boys, goes a pair of breasts."

Blum: Well, that seems to confirm his reputation.

Goldberg: Later on he told me he had married everyone that he ever slept with. I give you that as the curtailment of his reputation.

Blum: That isn't what I would have expected.

Goldberg: No, no. In all events, Gilmer and Bill went back to Chicago and I stayed on with Mies. I think we arrived on a Friday and I left on a Sunday. I left because I couldn't stand it anymore.

Blum: What couldn't you stand?

Goldberg: Well, he had a kind of church service on Sunday, a Wright-Ruskin service on the glory of nature, and they sang a song that was absolutely so outrageously mundane and Winnetka-like that I could truly not stand the environment. I complained about the environment, I complained about the architectural details to Mies—this was in German—and Mies said, "Shut up, Goldberg. Just be grateful it's here." I didn't have sense enough to understand his full meaning until much later in my life. But at that time, coming back to my own memories, I was so imbued with a new world that this kind of nonsense to me was just an exploitation of a silly romanticism that had no place in anyone's life. I think to that extent I had probably been schooled for this in Irving Babbit's classes at Harvard on the significance of the romantic period, and there was Wright in full bloom. I couldn't have had a deeper immersion in romantic nonsense than Taliesin.

Blum: And were you all the while interpreting for Mies?

Goldberg: Yes. Wright, you know, had good German at one time, apparently, but, as he said, he hadn't used it. So Wright and his wife Olgivanna were asking me questions about Mies's life and so on.

Blum: How was Mies responding, except for the comment that you made? How was he responding to Wright over this period of three or four days?

Goldberg: I think that Mies was absolutely enthralled by this. I remember Bill—so it must have been in the first day—Bill and Gilmer and I were standing by while Wright was showing Mies his collection of Japanese prints, and Wright offered Mies his choice of any one of the prints. Unfortunately for Mies he selected too good a one and he never got it. But it was extremely heady, you know. It was a Thoreau-like retreat. I've forgotten the names of all those mystics. What Wright was doing, and quite properly for what he represented and for what he wanted, was surrounding himself with a way of life, and that way of life required both the respect and adulation of a community that he had been deprived of in the real world.

Blum: Did you have a sense of the importance of those few days?

Goldberg: No.

Blum: You do now?

Goldberg: Certainly from a historical point of view, without question. No, it was a very heady experience for myself. The fact that I reacted so strongly should indicate to me, and indeed it does, that I had insecurities that it invaded.

Blum: Could it further hint at your loyalty to Mies?

Goldberg: I don't have a sense of loyalty to Mies.

Blum: Did you have a sense of loyalty at that time?

Goldberg: No, no. You have to understand that this is not a sect. This is not a godlike kind of experience. This is being led into a way of life like my father, perhaps, although my father didn't do it for me. But was he a surrogate father? Perhaps. But that wasn't really my feeling about Mies. My feeling about Mies was that he knew what I wanted to know and that he could open a book or he could open a life or he could open an idea or he could open my head. He opened my head. Albers opened my eyes. The whole environment opened my brain and my spirit to the fact that I could live in this world and I could be part of this world. To come out of a mercantile background. To come out of a background where people bought and sold things without leaving anything behind, was now going to be changed. I could work in the world.

Blum: I think you were a very unusual twenty-five-year-old.

Goldberg: I doubt that. I think that there are many young people who are great architects until they are eight or ten or twelve and then we ruin them. We close them down. We say, "Stop producing, just manipulate. Stop creating. Stop thinking." I had an experience in about 1970 with very close friends of mine in Boston while I was working there. They had a child who was dyslexic and they despaired of this child. He was a young boy, ten or twelve years old, and he was curious about what I was designing at Harvard. I was invited there for lunch, and I brought a few sheets of drawings with me. I was dumbfounded by his perception of the spaces, his understanding of the spaces, their relationship, and I could only admire him and tell his parents that I thought he was capable of becoming an architect.

Blum: Did you see that ability?

Goldberg: I didn't see it; it was there for everyone to see. So, we go on with Frank Lloyd Wright. As I say, it was a Sunday evening, and the Sunday evening service

was where the whole community of his students stood around and became his clique. I really had to leave. Mies stayed on.

Blum: He stayed? I thought you had the car.

Goldberg: I did, but I think Wright made arrangements for Mies to get back to Chicago. Obviously, he did.

Blum: And then when Mies came back in 1938 you renewed your friendship with him?

Goldberg: At the time I was designing things. Mies came up, and he was in my office. Very generously he gave me critiques, and it might have been in that year that we walked along the lake on more than one occasion.

Blum: What do you think Mies thought of Chicago, architecturally or otherwise?

Goldberg: I think Chicago was probably a great deal easier for Mies than either New York or Boston would have been. Chicago, after all, was a more open city. It was more like Berlin than either New York or Boston would be. People are more open here, I believe. The community was more open. The community was ready to make friends with Mies more readily. I think that the industrial environment of Chicago pleased Mies, but I think that he tried to interpret Chicago to itself. Certainly the kinds of buildings he built on the South Side such as the Promontory Apartments that he built first on the South Side of brick and concrete were not the kinds of buildings he had built in Germany.

Blum: Do you think the Promontory is an example of how he perceived Chicago and Chicago's needs?

Goldberg: Yes, I think so. But also I am sure that he was limited by budgets, and I think that he had advice from other architects. I am not privy to those things. I'm not privy to what influenced his decisions. I know that at one point when

Mies was visiting me, Mies expressed himself as saying that he didn't want to have an office. What he wanted to have was a corner in somebody else's office where he could design and be left by himself to do his work with a few students. My position to Mies at that time was that he couldn't really find an office that would be sympathetic to his work if they hadn't been doing it themselves.

Blum: You opened an office in 1937—got a license and opened an office. When he was here in 1938, why didn't you offer him space?

Goldberg: I think I would never have dared to offer him a space. When I say I "opened an office," don't misunderstand what my office was. It was one room and a sink. I both slept on the floor of my office and worked in it because I couldn't afford both an apartment and an office. So please don't misunderstand what I could offer Mies. I mean, you offer to break bread, but it truly turns out just to be bread.

Blum: When you opened your office, do you recall any of your ideas? What did you hope to accomplish? What did you want to do?

Goldberg: Well, I didn't open an office before I had something to do. I had been given some remodeling to do; I had been given some very simple houses to do. Incidentally, the Thomas H. Mullins house, which I think was one of the first houses, is still in existence and is owned by someone I recently had dinner with. I would have to recollect who it was. We promised to see each other some more. But I was fascinated by the fact that it's still alive.

Blum: The Mullins house was featured in *Tomorrow's House* publication. It was published, and there was built-in storage that used a modern vocabulary, a contemporary vocabulary.

Goldberg: Mike van Beuren, who went on to Mexico—Mike and I had a very good friendship together at the Bauhaus, and Mike went on to Mexico just to

design some furniture for a while, and he was going to come back and share an office with me. He was so successful he never came back. But that was what I had hoped to be able to do to establish an office.

Blum: Was it your idea when you opened in 1937?

Goldberg: When we started, yes.

Blum: You mentioned Gilmer Black before, and I read somewhere that he worked for you until his death in 1961. But you say he was an associate.

Goldberg: Well, let me say that Gilmer was a kind of free spirit. Gilmer helped me with work and we shared the work as each one had time to do it. One of the things that as a group we did was to build five prefabricated houses in Melrose Park. I had become extremely interested in stress-skin construction. I saw a movie last night of the mosquito bomber in England. The mosquito bomber had been built out of glued plywood stress-skin construction. It was a new technique at the time. The houses, I think, sold for $2,995 in Melrose Park—two bedrooms, completely equipped with bathrooms and kitchens and washing machines and all the rest of it—to give you some idea. And we sold them in a day. We did not have a real estate salesman. We were all out there thumping. Campbell MacIsaac of the *Chicago American* very kindly gave us a little write-up in the *Chicago American,* and we had crowds of people out there for the $3,000 house. As I say, we sold them in a day. They were insured by the Federal Housing Authority.

Blum: Why aren't you in that business today if it was such an instant success?

Goldberg: For one thing, I didn't understand how you made a business. I mean, I could do one project, but I didn't know how you converted that into a business. I must confess to you that the way we did it was in itself a kind of process which I think could only be done once. I continue to remind you, this was the depression. Rusty Beatty—Ross Beatty—owned the property out in Melrose

Park. So, Ross put his property into our pot. None of this was formalized except by Squirrel Ashcraft, who was the lawyer. We each contributed $100 in cash, so that gave us $500. I figured out that the $500 could, with some personal effort, pay for the labor that we had to pay for as we moved along. But from that point on I persuaded everyone who was a manufacturer to give us material on the cuff. The U.S. Plywood Corporation had just then been formed as a public venture. I went to New York, and the president of U.S. Plywood agreed to give us credit for the plywood and the lumber. I went to a paint company and they agreed to give us credit for the paint.

Blum: How did you convince them to do that? Prefabrication was not a concept that everyone bought readily.

Goldberg: I had gone to Washington to get the FHA to give us FHA approval—to insure the mortgages on these houses.

Blum: Was that simple to do?

Goldberg: Believe me, no. It took, I think, three trips to Washington.

Blum: What was the problem?

Goldberg: Prefabrication, a $3,000 house. Even in those days a $3,000 house was a kind of economic phenomenon, not very expensive. And so the process was building a series of acceptances on the first acceptance. We designed the house, we had the property, we got the FHA to say yes in Washington, we got mortgage people here to put our fee on the cuff. All these things demonstrated that the world was not dead and that you could make and sell houses. After we had sold all five houses in one day, Campbell MacIsaac said, “Now you have to do it again right away,” I took a deep breath and said, “I don’t know how.”

Blum: You had business people with you: you had a lawyer, you had a man with

property.

Goldberg: Yes, you see, the idea that you could get everybody to contribute to an effort like that the first time was because of the spirit and the romance and doing something. I'm sure you could probably get it done today, but how you do it a second time is quite different. The second time you would have needed a lot of capital, you would have needed a going business. Suddenly the whole thing would have changed its character. That kind of thing we didn't have. I guess we were more interested in demonstrating an idea than we were in starting a business. The idea worked and the idea continued, for me at least, through World War II when we designed prefabricated houses and built prefabricated houses and built whole towns. We built the little town of Suitland, Maryland. We had a production line that was building fifteen houses a day, complete with bathrooms and kitchens, all wired and piped.

Blum: From this auspicious beginning where you did some creative financing and people bought the product right away, in spite of the fact you've said you didn't know how to do it again on a larger scale, why do you think prefabrication hasn't taken hold?

Goldberg: I think it has taken hold. It's taken hold in a very curious form—the form of trailers, trailer parks.

Blum: I meant for your home and my home, not mobile homes.

Goldberg: To begin with, city building codes require a different kind of building standard. Different kinds of houses, except for a single family house, have to be fireproof or have some sort of fire rating when you build houses close together. That's one drawback. Another drawback is the fact that basically the housing market wants to replicate the colonial house with the picket fence around it.

Blum: You say that is the American homebuyer's taste?

Goldberg: Yes. I designed a house for an automobile mechanic named Al Warner who came to me. I think it was 1954. This is a home that has never been photographed, to the best of my knowledge. I may have some snapshots of it, and I don't even know where the drawings are. But it was a home that was made out of concrete block, very simply; we built it for $5,000. We couldn't get a mortgage for it, and I loaned the man the money to build it with the agreement that when it was built, if we could get a mortgage, he would pay me back. After it was built we got a mortgage, but bankers could not visualize investing in this kind of home before it existed. It had a flat roof, among other things, that damned it for the public. We built it out here in a little suburb of Chicago, Harwood Heights. We got a building permit and we started to build it. The entire neighborhood turned out to try to stop the construction of the house—and I mean their bodies came out and stood on the sidewalk to prevent delivery of materials. The head of the building department of this little suburb of Chicago revoked our permit. I said, "Why do you do this? This is illegal." He said, "Well, it may be illegal, but when you have one hundred of the people who vote for you trying to stop the construction, you do what they tell you to." And so I met with those people and I said, "I have a suggestion for you. There are one hundred of you." We had just started to put in the foundations. I said, "I will pay for the foundations we had put in myself and we will cover them up and you pay this man," my client. He was my automobile mechanic whose children were having psychiatric problems—he had a boy and a girl—and they were growing up and had shared one room and perhaps shared one bed, for all I know, but they were at an age, I think five or six or seven, when they were beginning to have problems of sharing so much without privacy. He came to me and he said, "Help me." This was what I was trying to do. He paid $1,000 for the land. I said, "There are one hundred of you. You each contribute ten dollars and make this land into a little park and we will go away." They wouldn't do it.

Blum: Why wouldn't they do it?

Goldberg: I have no idea. They would not pay ten dollars. They would come out and parade and stop the construction, but they would not give up ten dollars and make a park.

Blum: Curious. But I don't understand how your solution would have solved this man's problems and gotten the house built.

Goldberg: It would not have gotten the house built in that place. Perhaps we'd build it some other place. But you know, I explained the answer very carefully to these people who said it was against the law to build such a house. I said I was sorry, that the law does not prohibit taste—it was the only word I could use—and the law does not prohibit this man from wanting to build a house with a flat roof.

Blum: What were they really saying? They weren't saying it's illegal—I mean, not fundamentally. What were they saying?

Goldberg: I remember very clearly. Many of them were foreigners in that neighborhood, and they said, "We have come here. We have struggled. We have saved our money to build our houses and now you come in here to ruin our neighborhood," and what I was doing was building something that was different from what they had expected, different from their vision of what a neighborhood wants.

Blum: Do you think they thought they would lose money in selling their homes?

Goldberg: Yes, I think they felt as if the house would probably depreciate their own values. But I don't think that was it, because I offered them their protection for ten dollars. What better insurance policy could they have had?

Blum: So it was really their resistance to this new vocabulary.

Goldberg: To seeing something of the new vocabulary—flat-roofed house, glass front.

Blum: Did the house get built?

Goldberg: Yes, the house got built in 1947, and I replicated some of the thinking with the houses I built out on Drexel Boulevard.

Blum: Wasn't it an extension of what we were talking about, about the prefabricated houses?

Goldberg: It was an extension of that. It was an invasion, also. It was a sociological invasion.

Blum: You built Standard Houses with your Melrose Park venture that you didn't repeat, but you went on to do Suitland, Maryland. How did that come about?

Goldberg: The federal government at that time was interested in prefabrication as an industry.

Blum: Even after your difficulty with getting financing?

Goldberg: Yes, and so the federal government was, in a sense, preparing for war, and they wanted to be able to house people. They wanted, really, to stimulate the growth of an industry that could then provide housing in the event of a war.

Blum: How did you hear about the fact that these jobs or these communities were going to be built?

Goldberg: They found us.

[Tape 5: Side 1]

Goldberg: The federal government at that time was preparing for the eventuality of

war, and they were stimulating, to whatever extent they could, the growth of that industry. Indian Head, Maryland, was the first venture, and they offered contracts for fifty houses to anyone who wanted to build prefabricated houses at a given price.

Blum: And you accepted?

Goldberg: We accepted one contract, which they offered us. I got a group of people who were willing to invest in it, and we were launched.

Blum: Was this your first community, or was it just houses?

Goldberg: No, it was a community. We designed it for Indian Head, Maryland. We were given a plot of land, and then we had to design within that plot of land.

Blum: Were you to place everything, to site it?

Goldberg: To place everything. The road system was in, but we had to design the sewer system. It was much as you might design any kind of little venture. I forget how many acres we were given. The requisite was that before the government accepted them, we had to dismantle a house, move it and reconstruct it all in one day.

Blum: Was that difficult?

Goldberg: No.

Blum: In what style were the houses? Were they flat-roofed?

Goldberg: No. They were not flat-roofed as a matter of economy. They were without basements, but we provided a storage attic. To that extent a gabled-roofed house was a perfectly straightforward solution.

Blum: To go back for just one minute, the four houses that you built in Melrose Park were they in more traditional styles?

Goldberg: Yes, just almost what we did for the government at Indian Head—gable roof and a storage attic.

Blum: Wasn't that a big job for a small office, the kind which you've described, to do the fifty houses in Indian Head?

Goldberg: Looking back on it, it perhaps seems larger than it seemed doing it.

Blum: Did you have people working for you in your office?

Goldberg: Yes, but not very many. I think I was a two-man office, including myself. There might have been a third man, but I think I was a two-man office.

Blum: After the fifty houses in Indian Head, you went on to do something ten times larger in Maryland. How did you get that job?

Goldberg: Again, the government needed housing. It was wartime. You could walk into a government office and say, "We have the technology. Put us to work." It was a mad scene, an impossible scene, but we did it.

Blum: In this project, Eero Saarinen worked with you on color. How did that happen?

Goldberg: We had a very intelligent client, and one who had a great deal of architectural interest and perception. He said, "If I can get you permission from the federal government to do some color studies on these houses, would you like to do that?" I said, "Sure." Eero was in Washington at the time. He lived in Washington, he had a house there, and he and I became fairly good friends.

Blum: Did you know him before this job?

Goldberg: No, I didn't know him. As a matter of fact, the Saarinen group in Michigan for me had overtones of Frank Lloyd Wright's romanticism, and I had the same resentment toward their romance and the nature studies and the sort of Ruskin overtones of these enterprises that I had toward Taliesin. But Eero was quite a different kind of person and he was very good.

Blum: And you worked with him on these color studies?

Goldberg: Yes. He was interested in my work and I was interested in his work.

Blum: After doing these two jobs—large quantity of low-cost houses—what did you learn from these jobs?

Goldberg: I learned an enormous amount, some of which I've continued to manage to put to work. One point was the relationship of unionism or the role of unionism in building construction. We built our houses with union agreements, with agreements with the construction workers, the AFL [American Federation of Labor] unions. Those unions had a history of restrictive practice that prohibited as much progress in prefabrication of houses as there could be—and they still do, by the way. Their attitudes are those of crafts that don't want to see their work diminished in the building industry, and so they go to some lengths to prevent this. But we designed our production methods with various union agreements—with the carpenters unions, with the plumbers union. We had the first union agreements and the only union agreements in the country. Every other prefabricated house was built non-union. We built with union labor.

Blum: If things were prepared in a factory, why did you need carpenters?

Goldberg: We brought the unions into the factory. We unionized our factory.

Blum: Didn't that change the work of a carpenter? A factory is production line work as opposed to working on an individual room or house or doorway.

Goldberg: Yes. It changed from the artisanship of building to industrialized production, but it never occurred to me that they couldn't do it. We set up production lines the way you build an automobile. We had conveyors and we had men doing one operation and not another and becoming proficient in doing just one operation.

Blum: Did union people resist this kind of redirecting their talents and their skills?

Goldberg: To a certain extent, I think, without question. But I think they had a certain amount of curiosity about this as well. They recognized the fact that this was wartime. They could not prohibit our doing this if we wished to do it on a non-union basis. I think that very intelligently they agreed to go along with it because in the final analysis we weren't that important. Granted, we were an example and we broke through, but it was not necessarily an example that would keep them from clobbering us later on if they wished to. If we became too successful, then they could perhaps stop us and would have.

Blum: Was that your first encounter with unions?

Goldberg: No, I had encountered that, actually, in the prefabricated houses here in Melrose Park. We built those houses non-union.

Blum: Did you have trouble with the unions?

Goldberg: Not very much trouble. I mean, the depression was such that men were working for a dollar an hour and people were happy to have work of any description. So we managed to unionize something that the unions hadn't anticipated they would do earlier as well as later on. You asked what I learned. I learned a great deal about public acceptance—what things give the public a sense of security. Comfort, perhaps, is a more understandable word.

A comfort level. If one is too radical, the comfort level decreases and has to be compensated for in some other way, for example, in cost. If you build something inexpensively enough, people will buy it no matter whether they approve of your style or not because they buy for economic reasons. Then if it works, it's fine, and if it works and is less expensive, then it's even better. So we learned a great deal about what might be called public acceptance. What else did I learn? I suppose the moment you make one thing, whether it's a box or a church, you learn the pleasure—the real physical, spiritual pleasure—of making something.

Blum: Were you sold on the concept of prefabrication?

Goldberg: Totally, at that moment, for low-cost housing.

Blum: Could you translate that process into custom housing as well?

Goldberg: I tried to at Shelter Island [New York]. For the Snyder house on Shelter Island, which was ten years later, roughly, I had, through my engineering of a railroad freight car, developed what I conceived of being the largest brick in the world, if you think of a brick as being a building module. A brick is not a very precise choice of words, but it's an easy concept. It was a module of space. It was ten-feet wide; it was forty-feet, fifty-feet, sixty-feet long. We could make them eighty-feet long. It was eight- or ten-feet high, whatever it was, and it held together. It was a gigantic piece of space, a container, and within it you could do a number of things. So we designed a prefabricated house made out of these bricks of space. We shipped them in all kinds of ways—boat, rail, truck—from Hegewisch, Illinois, to Shelter Island, New York. They're still there.

Blum: Was this like a mobile home without wheels?

Goldberg: That's one way of looking at it, yes, but a mobile home really is a—I suppose it's identical, but it's not a brick because a mobile home is really meant to

wander around. We did that with our mobile ice cream station, the North Pole. That was meant to wander around. The form of it conformed to road requirements, maximum width, and so on. Here we had a one-time shipping experience.

Blum: You know, the description of what you're creating in my mind recalls to me something that Paul Schweikher designed very early in the thirties. But it was a home for the [Charles] Eliasons. Were you with him when he did that?

Goldberg: I think so.

Blum: It looked like the inside of a mobile home, although it was not. I saw a photograph of a model. It was like a corrugated steel exterior. I don't know if it was actually built.

Goldberg: The name Eliason is familiar to me, but I don't really remember and certainly I don't want to intrude myself on any of Paul's work. I don't remember whether I worked on that or not. Either Paul was going to work on it—he had worked on it or had done it, I can't tell you. Don't forget that Lee Atwood's version of the Dymaxion house was a prefabricated house, totally different in the concept of pre-fabrication.

Blum: Well, for a lot of architects who were pushing the limits was this in the air?

Goldberg: Yes, prefabrication was very much in the air. The 1933 Century of Progress, I think, spawned a great deal of interest in new industrialized construction and new methods of construction. Of course, among them was the concept of building a low-cost house in a factory that would come out at perhaps the same price as an automobile. You had, as I mentioned, Lee Atwood's concept of the Dymaxion house on which I know Lee did all the innovative detailing that provided for prefabricated bathrooms and kitchens and floors that were inflated for strength, as well as a tension exterior structure done with cables and a mast. It was a moment of innovation. Howard Fisher's General House

was quite similar in principle to the one I tried, which was to construct very simple panels. Howard Fisher's were metal panels done with a porcelain enamel coating; mine were a plywood stress-skin construction comparable to the mosquito bombers, as I mentioned, that were built later in England. The plywood stress-skin construction and glued laminated construction was just coming into existence. I think there is a laminated plywood bridge that had been built in Switzerland—glued and laminated. It was a new technique of using wood that was meant to eliminate some of the problems that wood alone presented, such as warping and expanding and contracting. So we were all embarked in new ways, industrialized ways of trying to contribute a socialized architecture to a new world.

Blum: Was the social message embedded in your effort—the social concern?

Goldberg: Yes, very clearly. Again, we were looking at a world where low-cost housing was not a question of building low-cost houses for the suburban wealthy class but was for building houses for perhaps an industrialized class. I can remember shortly after World War II designing a concept of a new city for the Calumet region here in Chicago. I was sponsored at that time by General American Transportation Corporation where Lester Selig was the CEO. Lester wanted me to design workingmen's houses with the idea, possibly, of George Pullman renewed, but the concept that I proposed was one of offering people a very simple house—a two- or three-bedroom house, I think it was a three-bedroom house—with a garden. It would have been a house that they never would own but which would be renewed every twenty-five years. A new house would be given to them every twenty-five years, very much as one trades in an automobile.

Blum: The tenant would lease the house with the guarantee that they would get another at the end of twenty-five years?

Goldberg: Yes. The land would be owned as an investment by a separate group, and the landowner group would receive a fixed rate of interest very much like land

banks that were conceived in the early nineteenth century. The land, which never changes in value, really, would have an interest guaranteed by the income from people who were living on the land and would have a kind of value system of its own, and the house would have a value system which was based upon a twenty-five year depreciation.

Blum: Did that materialize?

Goldberg: No, it did not materialize. General American wanted me to carry on with the financing, and the reception of the project by the insurance companies was one of uncertainty in dealing with a group of employees. They felt that the employees could utilize such a concentrated assembly of houses to get rid of some of their frustrations in their labor relations and that such an assembly of houses might be the tool of a rent strike in the event their labor relations were unhappy.

Blum: It sounds like a good idea went down the drain for the wrong reason.

Goldberg: I'm not sure, in retrospect, that my concepts of monolithic living, such as I would have provided with such a plan, is really what I would propose, at least in the later twentieth century. The similarity of my solution to the garden city plans that were being promulgated at that time for alternatives to urban living I think today is suitable for some people. It is conceivably an alternative living that I find less attractive, at least, for the later twentieth-century American life, than a garden city, which perhaps would have been better suited to immigration patterns from Central Europe or Southern Europe, as those people moved into the Calumet region to find jobs in the steel mills.

Blum: You say it would be more suitable at that time than today?

Goldberg: Yes, because we had an immigration pattern. We had people who were accustomed to having little gardens in Europe, raising their own vegetables,

while the man of the family found a job someplace. This is still prevalent, of course, in many parts of Europe and, to some extent, modestly prevalent in the U.S. where there is a combination of farm living and industrial employment at some nearby factory. The Calumet region could have supported such a thing, but as a way of living, I see the alternative urbanization offering amenities which I believe young Americans will demand, not the least of which is sophisticated education, health care, jobs and things of that sort. There has to be a critical mass for that kind of development of amenities, which, obviously, the garden city doesn't provide.

Blum: But at that time it seemed like a reasonable solution?

Goldberg: At that time it seemed an ideal solution in many ways. It reduced the cost of living dramatically. It provided those people with an opportunity to reduce their food costs, to reduce their transportation costs. It provided them with a promise that they would not be faced with a constantly degenerating pattern of living, starting with a new house and then ending up fifty years later with something that ought to be wrecked and replaced. Our concept really had that modest amount of contribution to offer, that you weren't forever confined to what was considered adequate today.

Blum: So it was a thought for new immigrants and how to accommodate their needs on a social level?

Goldberg: Well, it was a thought for the blue-collar worker, and the blue-collar worker out in the Calumet region was primarily an immigrant type in those years. The salaries that were being offered, for example, by the heavy industrial plants out there in the Calumet region were very modest salaries.

Blum: Were these the steel mills?

Goldberg: Steel mills, oil refineries, and car-building plants for the railroads. Unionism got a great lift during World War II, but you must remember that that was

also the area where they had used machine guns on the workers in the thirties. There was still a great deal of social unrest in that area.

Blum: How did you become involved in this area? Was it through this company?

Goldberg: No. The romance of Chicago as an industrial center was always apparent to me, even before I reached my teens. We used to go to factories as young students at school. Our teachers used to take us to factories to see how people worked and to see how things were built. Almost all the parents of all the boys who I went to school with were in some kind of industrially-related activity. I owned my first automobile when I was twelve.

Blum: You were twelve! Was that legal?

Goldberg: It was legal in those days. There was no such thing as an automobile driver's license.

Blum: That seems like such an unusual idea today.

Goldberg: Yes, well, people have forgotten there used to be a comic strip called "Gasoline Alley." It was a boy's life to be underneath your automobile and to be able to repair engines.

Blum: How did you come to own an automobile at twelve years old? It seems so young.

Goldberg: I paid five dollars for it. I paid for it out of my allowance.

Blum: And your parents paid the rest?

Goldberg: Well, I think everybody was a little naïve. I'm not sure that I was insured.

Blum: That's incredible to think of a twelve-year-old owning and driving. I mean,

owning is one thing, but driving on the streets with real people around with the judgment of a twelve-year-old.

Goldberg: That's one way you build up judgment.

Blum: I assume you drove the car, but you also said you were under the car—I hope repairing it.

Goldberg: Repairing it, of course. It was a Model T Ford, and we learned a great deal from it.

Blum: Was that usual among your friends?

Goldberg: It wasn't especially usual, but I did it and I'm grateful for it.

Blum: You talked about being fascinated with industrialization. Did your grandfather's brick business or factory impress you?

Goldberg: I never saw the brickyard. My father grew up in that environment, but I didn't grow up in that environment. My father grew up on the farm out there.

Blum: Did your grandfather's factory exist when you were growing up?

Goldberg: I don't believe so. My grandfather died when I was—I guess I could place it after World War I—my grandfather died, I think, in the early twenties. I'm not sure that he had the brickyard even then. But it didn't keep me from having the romance of tearing down one of his buildings and rebuilding it for Sears, Roebuck on Central Avenue in Highland Park. The timbers came out of the 1893 Columbian Exposition. My grandfather built that out of the demolition of the Columbian Exposition.

Blum: It seems that from the time you organized your office in 1937 until after the

war—and I hope we'll talk more about some of these other prefabricated inventions and discoveries that you made—there seemed to be a small interlude of private houses that were not prefabricated and were not low-cost.

Goldberg: My concept of cost of housing came from Paul Schweikher.

Blum: What was that?

Goldberg: I can remember in those years that a rule of thumb was twenty-five cents a cubic foot for the cost of a house. Now, if a house had a cubic content of, say, nine or ten feet in height for every square foot of floor area, you would have a cost of something like two-and-a-half dollars a square foot in the thirties, to give you some idea of what housing cost was.

Blum: Now, that was for middle-priced housing?

Goldberg: That was for the kind of house which you see illustrated—the Ennis house by William Ferguson Deknatel, perhaps, that you just showed me—but not for the Lake Forest houses that I worked on slightly—the [George] Voevodsky house, for example, for Paul Schweikher. There were varying degrees of elegance, but the houses that I built before World War II ran somewhere in the neighborhood of—well, they certainly were less than $25,000.

Blum: This was for an individual custom-designed house?

Goldberg: Yes. And I'm not sure whether the Mullins house, which I designed, in Evanston cost any more than $5,000 at that time.

Blum: That's pretty surprising.

Goldberg: Well, you must remember that men were working for a dollar an hour in the early thirties—1934, 1935—as skilled labor.

Blum: The dates for these individual houses that I have come across were just as you started your office—1936, 1937.

Goldberg: Yes.

Blum: How did you get these commissions? There was the Mullins house, for one, and the [Howard] Willet house, for another. Was that a real house?

Goldberg: No. That was a kind of orangerie that I did out in Grayslake, I think.

Blum: Yes. It's been called "an invisible shelter," like transparent architecture today.

Goldberg: I got the commission by word of mouth. I was young. I had a background that was quite different from the older men. It's interesting to think that people who wanted to build would want to seek out some younger person who had had a different background. It's a good reflection on the society that people wanted to have a new world.

Blum: Do you think that was a pervasive striving among people other than architects?

Goldberg: As we talk about it, I realize it must have been. Conceivably, if you had some young architect today who had had an education in a far-off country and who was around just looking to do things, it's conceivable, I suppose. You might see what he wanted to offer.

Blum: I think it's interesting that you talk about building a new world because so many architects that I have spoken with wanted to do this after the Second World War, after they saw it all come apart and they had this desire to put it back together in a new and better way. But you're one of the few people who talk about that before the Second World War ever occurred. Do you think it's because of your European experience?

Goldberg: No, on the contrary. You know, one of the things that occurred to me about present architectural history is that it has absolutely no recognition and very little understanding of what went on in America in the ten years from 1930 to 1940. I think if you go back and look at the catalogs of the Century of Progress here in 1933, you see the glitz and you see Mike Todd's girlie shows and you see a certain amount of exuberant and inexpensive celebration. But as I think I mentioned before, you also see things that were new—a new mathematics, new scientific things, new ways of looking at Shakespeare, new hospital treatments, new automobiles. When I say "new," I mean not new models or not a new style, but I mean really innovatively new, with major contributions to offer to respective divisions of interests. Along with that you must remember that in the intellectual centers of this country, such as Harvard, there was openly a discussion of whether we could survive as a model of eighteenth century liberalism and democracy. At the same time they were teaching Beaux-Arts architecture. I mentioned to you earlier the competition program for a house for the man who spent as much time at home as he did at his club. Now, these contradictions, of course, were evidence of change, but it was possible to conceive of a new world without being labeled as a bleary-eyed red. There were new concepts being offered constantly. I think it might easily have been the *Chicago Tribune,* I don't remember exactly—some major organization offered a little certificate for a face value of five dollars—that could be redeemed for five dollars, let us say at the *Chicago Tribune,* within thirty days but not before thirty days. There was a little record on the back of it which indicated that it had been used each day for a purchase, so that whoever received it was promised that he could redeem it at the end of thirty days, providing it was spent every day for thirty days, so that at the end of thirty days that little five dollar slip had generated $150 in transactions of some sort.

[Tape 5: Side 2]

Goldberg: Little schemes like that were meant to generate new concepts of economics

for people. I don't think the field of economics or the economists knew as much in those days about what regulates prosperity as perhaps we understand today. Certainly we didn't know as much about public confidence and the way in which public comfort actively regulates some of our economic performance. But all I'm trying to say is that there was a new drive along with this terrible depression, along with the fact that people who were at school just kept on going to school because there was nothing for them to do when they got out. Along with that kind of environment—to a certain extent it was hopeless—was a very hopeful environment of new ideas and a new world.

Blum: For those who were perceptive enough to see it.

Goldberg: But there were more people who were perceptive than you could easily imagine. There was a show at Cooper Union that some youngish people from Chicago here had put together on early architecture. I met with them at the opening of the show, I think in about 1970-something. One of the Bowman brothers was there. We had known each other in the thirties, and they, too, were in some sort of prefabrication. I remember a little stainless steel or aluminum model of a seventeen- or eighteen-story building that they made with some little round trees around it. Both of us were sitting there at this opening at Cooper Union, and here were these youngish people trying to explain what had happened in Chicago in the thirties, absolutely without any understanding of what happened in the thirties, absolutely without any understanding of the enormous surge of invention and sociological contribution that we were all engaged in. And the Bowman brothers shared my indignation at their failure to understand, really, the wonderful things that were ongoing. I think that somehow the architectural historians have to pick up this period and put it in its proper perspective, because this nonsense about modernism being characterized by Mies's cubism is a ridiculous kind of ignorance. By ignorance I mean—I'm going to the root of the word—they are ignoring what was happening.

Blum: Maybe they're just not old enough to know.

Goldberg: But it's in front of you. It's there. All you have to do is look. I want to go further and say that although the depression of the thirties sort of caused this whole thing to bloom, because there were no alternatives, if you go back to earlier periods you find that the same thing happened in Germany during the Weimar Republic. There was a blooming again, which incidentally comes, I suppose, from that wonderful German word that means flower. Then if you go back and you look at the latter part of the nineteenth century you find that there was a search at the latter part of the nineteenth century that we wash out with an overlay of Victorianism and kitsch and whatever. But at the end of the nineteenth century, there was this enormous search for that universal truth that would be the solution for everything. If it was in science, they were looking for that one material that would solve all problems. Daddy Warbucks—do you know where Daddy Warbucks got his money? He was Little Orphan Annie's foster father. He made his fortune in a material—I'm trying to remember the name of the material—but it was lighter than aluminum, it was stronger than steel, it could be made into any shape, it could be cut with a butter knife, and so forth and so on. It was the universal material for all new industry.

Blum: This material was the creation of the cartoonist?

Goldberg: This was the creation of the cartoonist, yes, but that the cartoonist looked for this kind of backup for this multi-bucks man is indicative of what people were looking for. Einstein, when he looked for his universal E=MC2, his universal formula, was very much in this nineteenth-century tradition of seeking the one universal everything. Stalin or Lenin or Marx—they were all looking for that one kind of perhaps universal power mechanism that would give them a government that was suitable for the whole world—the world they saw as being suitable. I think the biologists were looking for that particular cell that would account for all growth.

Blum: And did this search for the universal solution lead to discontent in the thirties?

Goldberg: No, I don't say that. I haven't traced that adequately for you. I'm just saying to you that modernism—and I hate to use that word because modernism is us, always, it's always us—but the trail of modernism, which is characterized certainly by the little signposts of looking for new things, sometimes is sociologically directed. Sometimes it is directed at making money, sometimes it is directed toward making new governments—I mean, those are the chief directions of the period. But that trail of modernism, for as far back as you can see, is in varying degrees always directed toward, as I see it, that one discovery that came in the Renaissance, which was humanism. That's the only one thing that links everything, in varying degrees, but it is a thread of humanism that began in the Renaissance, and I can't for the life of me determine when the Renaissance began. But whether it began in the fourteenth century or the twelfth century or the fifteenth or sixteenth century, depending upon your attitudes toward the Renaissance, it nevertheless was always interwoven with its relationship to people—I hate to say the common man, but certainly to people other than the rich and the religious. Now, architecture in the thirties suddenly became self-aware of its role in this. It wasn't just building big buildings. Modernism, or the role of architecture in this whole process, became much more apparent when the world around it fell away. When the other things disappeared, to a certain extent, then what was left of architecture or for architecture? Could architecture participate in some fashion? Was architecture always going to do nothing but build storage warehouses for office workers or churches or houses for the rich? It was going to do something else.

Blum: Do you think this became an awareness in the thirties?

Goldberg: I think it became an awareness in the twenties in Germany and that was the essence of the Bauhaus, as I see the Bauhaus.

Blum: When did this awareness take hold for you?

Goldberg: I think my education simply started with being aware of that architecture was implicated in sociological change. Granted that my few years at Harvard made me think that shades and shadows and the Greek orders were the elements of architecture, but I suspect that my education became involved with sociological impact at the Bauhaus. At the Bauhaus it was never discussed because it was the body of the study of architecture. At the Bauhaus you didn't design in terms of Greek orders, you designed in terms of how much space people needed to bend their elbows or to stand up or to lie down or to cook an egg or to make love. Did you want the sun to come in and wake you up in the morning? Was that good for people or bad for people? Was it bad for people not to have more sunlight? These became ethical elements of architecture.

Blum: Can we shift for a minute? You mentioned the 1933 Century of Progress exhibition and all these wonderful new things that you found there. I must comment that so few people took seriously the wonderful new things there, so I think you had a certain sensitivity to what was happening that perhaps many people didn't have and didn't respond to. But one of the things that you developed in 1938 was your mast-hung ice cream store. There was a mast-hung structure at the 1933 fair, the Travel and Transport building. Did you particularly have any connection to that building, as you went on to do more than one mast-hung structure?

Goldberg: I think the Dymaxion house had been really proposed by Bucky Fuller before the fair. I can remember it in *Time* magazine, I think, in 1932, and a little article on Bucky Fuller. The concept of the tension-supported roof—of a roof supported by hanging—was something which obviously I hadn't designed or invented, and I'm not sure whether the first invention of that was perhaps a sailboat mast. But the awareness of it certainly opened a new horizon for design and for creating spans that were not necessarily supported by a rather clumsy columnar structure at the perimeter of any building. You could get a

building that suddenly was open at its edges instead of closed at its edges.

Blum: Your building was officially called the North Pole Ice Cream Store.

Goldberg: Right. But, you see, it was meant to be a building that could move, and it was meant, actually, to follow the sun, as it were. An ice cream store in Chicago could be put into a parking lot during the summer and an ice cream store could then be moved to Florida for the winter.

Blum: The same building?

Goldberg: Yes, because it was on wheels. It was on a truck chassis. The one thing that I invented, I think—although certainly I didn't take a patent on it or any of those kinds of things—was the storage of the ice cream in a topless refrigerator. You'd look down in the open cans of ice cream because the cold air sat around them and you didn't have to put ice cream in a storage compartment.

Blum: Didn't you need a cover to keep the cold air in?

Goldberg: You didn't need a cover, right. To the best of my knowledge, I had never seen that before. So we designed and engineered the display cases and put them on wheels and built this hinged mast which could then rise up and string the roof out around it, and then hang the glass walls from the roof.

Blum: That was really an interesting and reasonable solution for something that moved and didn't want to be anchored in the ground. How many of those ice cream stores did you build? One?

Goldberg: Yes.

Blum: You couldn't cover Illinois and Florida at the same time with only one.

Goldberg: I showed it to General Wood, who became very interested in it as a concept for Sears, Roebuck—for stores that could be erected very quickly for new industrial centers. I think oil was just being discovered in southern Illinois at that time and he wanted to set up stores quickly in those areas. He became sort of interested in it, but nothing ever happened. Once you get down below the CEO level, you're dealing with people who want to save their jobs and not innovate. So that died.

Blum: So this was the one. What's happened to it?

Goldberg: Oh, I don't know. It should be rolling around here somewhere or its ghost is rolling around.

Blum: Did you own that?

Goldberg: No, I didn't own it. I built it for a client. We built it in—I forget what kind of shop that was. It was, I think, a shop that made truck bodies. We built the whole building in a shop that made truck bodies, and then rolled it out to the site where it was built. I've even forgotten where it was built.

Blum: Was that an interesting—I won't call it an experiment—was it an interesting creation for you?

Goldberg: Oh, yes. It was tremendously interesting, and also I got quite fat while I was doing it because I wanted to find out how you made good ice cream, so I sampled ice cream all over Chicago.

Blum: Was it your idea to float the roof on a mast?

Goldberg: Yes, it was all mine.

Blum: There was another building that was mast-hung, a service station that you designed pretty much at the same time.

Goldberg: No, I did that a little bit later. I had had the experience of building the North Pole by that time, and I designed the service station for Frank Katzin, for whom I subsequently designed the house on the South Side.

Blum: How many of those service stations were built?

Goldberg: Oh, just one. We were happy to get anything built.

Blum: Why didn't this mast-hung idea continue? Was it economics?

Goldberg: It did continue. Bruce Graham used it in Baxter Labs [Deerfield, Illinois].

Blum: Why didn't it continue with you?

Goldberg: Oh. I think so far as I was concerned, I started to design other things. It's not a simple form of construction. It is simple in concept, but basically the simplest form of construction is to build something with supporting walls and put a roof on it. But my interest then began in prefabrication. Indian Head began just about the time I was doing the Katzin house, and so I became really vitally interested in that. Then after the war I decided that the construction of buildings was rather archaic and that we should do something else—that you should industrialize buildings—and so I tried to do that by building prefabricated bathrooms.

Blum: You also built furniture, and in 1938 the American Novelty Furniture Company was organized. How did this come about?

Goldberg: Well, I had been designing furniture since about 1935. I designed a factory for the American Novelty Furniture Company. They had done some wood things and I designed a portion of the factory expansion for them.

Blum: I had the feeling that was the name of a company that you organized to

produce furniture.

Goldberg: No, that was a well-established company on Flournoy Street.

Blum: I see. When you designed furniture, you worked a lot with plywood.

Goldberg: That plywood furniture which I designed in 1937 for the San Francisco fair [Golden Gate International Exposition]—we organized a kind of Bauhaus section at that fair. I tried to get Mies to design a piece of furniture for that fair. He didn't, but Mike van Beuren designed a piece, Bill Priestley designed a piece, I designed these two pieces. I never went out to see the exhibition. Dorothy Liebes ran that fair, or at least ran the organization of those exhibits. I think she either was a weaver or did something with weaving.

Blum: Did you design furniture for houses you built, as a total concept?

Goldberg: Yes.

Blum: What was available commercially?

Goldberg: Very little, in contemporary furniture. At that time it was very easy to find skilled workmen, cabinetmakers. The cabinetmaker tradition from Europe was still prevalent here in Chicago, and most of them had no jobs and they used to work in their basements and things of that sort.

Blum: You worked with wood. Did you design the tubular steel type of furniture?

Goldberg: Both.

Blum: That was the kind that the Kecks needed for their exhibition house in 1933, and they said it simply wasn't available, so they had to design it and build it. Marianne Willisch is a name that I know has come up numerous times in the context of interiors and furniture as well. Did you have any contact with her?

Goldberg: Oh, yes. I think my contact with her began in Fred Keck's office. I never used her myself, but I think my sister used her to furnish some apartments of hers.

Blum: Willisch had a shop, and I know for a while she had architects designing furniture that, I suppose, she had built and then sold in her shop. Were you one of her designers?

Goldberg: No. The shop must have come later.

Blum: I don't know the exact dates of the shop, but if I recall correctly it was in the Diana Court building.

Goldberg: That must have come later—well, I say it must have come later, but I'm not sure because Katherine Kuh, I know, had her gallery in the Diana Court building, and I don't know how much money that cost and so on.

Blum: 1940 brought the United States very close to war. You were not in service. How did it happen that you weren't in service?

Goldberg: In 1939 I began to build prefabricated houses for the government at the Indian Head project. Then we had a factory that was building those houses, first at Anderson, Indiana, in 1939, I believe, and then in 1940 at Richmond, Virginia. So my work at that time was regarded as being critical to the war effort, essential industry was the label, I think. And in 1941—I think it was 1941 or it may have been 1942, I guess it was 1942 because it took us two years to built Suitland, Maryland—I was in an explosion. The Virginia Pulp and Paper Company, located in Richmond, Virginia, wanted us to build some houses for their lumber sources for lumber mills. I was on my way to meet with the officers of the company and I was walking through their yard and one of their factories that made paper exploded and killed twenty people. Two of us survived—the man I was with and myself. We were underneath the building. The building just fell over on us, a big, brick

building. So I had a very bad concussion that took me a year to recover from. During that time I was still doing Suitland, Maryland. I never recovered fully until about 1943 or 1944, and then I enlisted, actually, with the OSS. I was meant to go to Africa and rebuild cities there. I had shots and I reported for transportation in Washington, and the project was canceled the moment we got there because the war was almost over. The European invasion had started.

Blum: And rebuilding the cities would have drawn on your experience of building the prefabricated cities that you built here.

Goldberg: Right. Also at that time I had designed a number of things for the military directly to move 105mm Howitzers into the jungles in the Pacific war.

Blum: There was a crate you designed—or at least I read about—for anti-aircraft.

Goldberg: That was another crate I designed for the low-force, Bofors 90mm antiaircraft gun. I designed a crate as a house—a convertible crate. It was a very big crate. It was a crate as big as this room. What the Army had been doing was to throw away the lumber when it got there, and so I said, "Hey, I can build you a prefabricated house as a crate, and then when you take the gun out of the crate you could use the crate as a house." They liked the idea and we built two hundred and fifty or five hundred of them, or whatever it was.

Blum: You designed a mobile delousing unit too.

Goldberg: That I did preliminary to going to Africa. I was supposed to go to Africa when I enlisted with the OSS.

Blum: How did you get the commission?

Goldberg: I was in Washington a great deal because Suitland was nearby Washington, and Bucky Fuller was head of some section of the OSS at that time. I can't

remember exactly whether he dragged me in or somebody else dragged me in. I did two things. At that time penicillin had just been invented. Penicillin was selling for ten dollars a dose by the pharmaceutical companies. A dose was 100,000 units of whatever the drug was called, and there was a shortage of it. They couldn't get enough of it to get into Africa. They asked me if I had any ideas, and I said I would investigate. I investigated it with Westinghouse, and together we put an idea together to have a mobile penicillin manufacturing laboratory to be transported to the African scene.

Blum: Were they going to make the penicillin there?

Goldberg: Yes. Two things happened: one was, again, the war was coming to an end, and the second thing was that the pharmaceutical laboratories then dropped their cost of penicillin from ten dollars to one dollar a dose.

Blum: Did you ever manufacture or produce any of these penicillin laboratories?

Goldberg: No. We produced a model of it. There is a photograph of the model, but that's all that I have left of it. Oh, I remember now what happened. I started with the mobile delousing station because typhus was in epidemic form in Africa, and I had to study the various kinds of lice that produced typhus in order to design it. There were four types of lice, I remember, the last of which was the crab louse that were carriers of typhus. With the Arab population in Africa there were certain restrictions as to how you could treat these people. You couldn't treat men and women, obviously, the same, and taking care of their clothes was just as important as getting them clean and getting the lice off of people. So, I designed the mobile delousing station, and that was, by the way, modeled after the North Pole thing—the mast-hung arrangement. The design of the roof was based on a mast. That was canceled because they had just discovered penicillin, and then they wanted to know whether somehow I could make a thing to bring penicillin into Africa.

Blum: Was the penicillin lab designed in a mast-hung way?

Goldberg: No, that was not. That was designed like a boxcar. That was prelude to my boxcar period. It was designed as two long tubular chambers in a T-form. The manufacturing laboratory to plant the mold was across the front, and the room to incubate the penicillin mold came off that.

Blum: How long did it take for penicillin to germinate?

Goldberg: Oh, it germinates very quickly—just three or four days.

Blum: Did either of these ingenious ideas come to fruition—the delousing station or the penicillin lab?

Goldberg: No, but the gun crates were built and the 105mm Howitzer crates. The object there was to get these more powerful guns back into the jungles where there was no transportation except human transport, and I designed something that could carry them. I had to take the gun apart and figure out the bioengineering of how people could carry these parts and what a crate would be like for that—all those good things.

Blum: Was this the crate that became the house?

Goldberg: No. That crate didn't become anything except a conveyance. That had a crate life, but the containers for the Bofors guns became houses.

Blum: When the war was over you were apparently still in a mode of prefabrication, and you designed a bathroom unit. Was this a bathroom core that could just be plugged into a house?

Goldberg: It was an appliance. I designed the bathroom as an appliance.

Blum: How did that idea come to you, and how did it all take shape?

Goldberg: We had started that, actually, at Melrose Park when we designed the five prefabricated houses. I designed a prefabricated plumbing unit that could take a bathroom on one side and a kitchen on the other side. But that was just the piping. When we were designing Suitland, Maryland, we were building total bathrooms with the fixtures all in place and everything piped. The toilet seats were color-matched to the walls. We had fifteen of these bathrooms coming down the production lines every day, you know. We were building bathrooms. That was a total room. And it suddenly occurred to me that really—I mean, the shortage of plumbing in the U.S. in 1946 was enormous. There was a vast number of urban houses that had no bathrooms. People don't realize that. So, I wanted to design an element that could go through a door and have a very simple connection of four pipes and produce a useful bathroom. As I say, it was an appliance.

Blum: What facilities were a part of this appliance?

Goldberg: I should show you that rather than tell you about it, but I will tell you about it briefly. It had a full five-foot bathtub and a shower and a back wall and a place to hang towels around the bathtub. It had a lavatory big enough to bathe a baby in. It had a storage compartment underneath the lavatory for books and cigarettes.

Blum: The essentials you always need in a bathroom.

Goldberg: Yes, and toothbrushes and the whole bit. It had a water closet in it. It was, I think, seven-feet long and thirty-inches wide and about four-feet high.

Blum: How was this appliance received?

Goldberg: It was received with an enormous amount of interest. We built, I think, about 2,500 of them or 2,000 of them—I forget how many we built. We formed a company. We raised the capital. It was union-made, but there are over 2,000 plumbing codes in the United States. So you could not just send it to a

hardware store and have the hardware store sell a bathroom to somebody in a town, because the plumbing inspector of the town had to know what the piping looked like and so forth.

Blum: So how were these distributed?

Goldberg: Well, we sold some to Montgomery Ward, I believe. I think we sold one carload to Montgomery Ward.

[Tape 6: Side 1]

Goldberg: This was supposed to be a low-cost kind of thing so that everybody could afford a bathroom, and a bathroom which could be sold for $275—a complete bathroom for $275, all piped—perhaps another $100 to install—suddenly became a distribution problem. It was very clearly a problem of distribution that caused us to fall on our face.

Blum: You have been quoted as saying you were defeated by industrialized distribution systems, so it's the same idea. It also seems that at that time Borg-Warner held a competition to which invited architects submitted a house into which they could fit their core.

Goldberg: Core unit—Borg-Warner came out with the core unit. Everybody was interested in industrialization of housing, and I must remind you also that the federal government at that time had a program of financing, encouraging in some fashion people to produce elements for living—urban houses. But I had come to the realization, painfully, that to produce prefabricated elements that could be combined in the field into a finished product was really not the way to build. You had to produce a whole unit which could be laid like an egg on a foundation and there it is, ready to use. That will be the industrialized, prefabricated house. That is being done—not so extensively, but you see some buildings, largely hotels and things of that sort, where they prefabricate whole rooms and put them in place.

Blum: I have read that your bathroom unit was manufactured by the Pressed Steel Car Company.

Goldberg: That is incorrect. We formed a brand-new corporation with new money. As I recall, we raised a half-million dollars and we lost it all. We even added money to it. I think the total losses were, perhaps, a million dollars in 1948 or 1950 dollars—I've forgotten the exact year. As I mentioned, it was the distribution that got us down—the unionized distribution systems. We sold some to Montgomery Ward, we sold some to various plumbing distribution companies, but it wasn't enough. It was like building a new automobile. It was about that proportion at that time, that scale. We had to get local approvals of plumbing codes. We had to get union approvals, although we were union-made. We had a great deal of innovation to deal with. The government guaranteed a market for all of these things.

Blum: Did the government guarantee your own housing that they were financing?

Goldberg: No, and not in the government's own housing. I think the program was under Harry Truman. The government decided that the quickest way to encourage innovative housing was to examine these new proposals, these new ideas, and then to guarantee a certain size market for these things.

Blum: How did they do that?

Goldberg: We applied to the government with the technical data. The government had a technical division of the FHA which inspected the programs that we intended to undertake, and then the government wrote us and stated that if we couldn't sell X number of units, they would provide a market for Y number of units out of the X at a given price.

Blum: How did you lose the money you invested?

Goldberg: The government did not guarantee us a price that was adequate to pay for our costs. They guaranteed us a price that would be adequate for some portion of the costs, and then it required private capital to pick up the difference.

Blum: What was the cost of the freight car?

Goldberg: Well, after the bathrooms we tried to interest corporations in the tools and dies that we had already fabricated, and after the bathrooms one of the corporations that looked at us was Pressed Steel Car Company. Pressed Steel Car Company decided that they would not go into the manufacture of bathrooms, and we tried the Pullman Car Company, among others, because of their familiarity with plumbing in their railroad cars. They were making their passenger cars, you know. That's another form of prefabricated house that no one really respected enough—the American passenger railroad car of those days with bedrooms and bathrooms. Very innovative technology at that time. But they too felt that they would have union problems to deal with, and it was something they could not embark on. Pressed Steel Car Company, in spite of the fact they did not think very highly of the marketing possibilities for bathrooms, became interested in my work. There was a terrible shortage of steel at that time, right after the war, and the Pressed Steel Car Company asked me if I could design a version of our prefabricated plywood panels which they had become familiar with through the things I showed them—these laminated prefabricated panels—and whether those panels would be capable of becoming a railroad freight car, obviously without the use of steel or with a minimum usage of steel. And so we undertook to design a freight car. I invented a tubular freight car. It was a gigantic tube, about ten-feet wide and ten- or twelve-feet high and about forty- to sixty-feet long. It had no steel in it, and it was quite strong. In those days we used to test them by colliding them with existing freight cars. It was like two elephants battling out in a field.

Blum: How did the plywood hold up?

Goldberg: Better than the steel freight cars. The steel freight cars are made of pieces, and the plywood car was made as a monolithic tube and had an enormous amount of strength. The Pressed Steel Car Company sold five hundred of them in Saudi Arabia. That was the first shipment that they made of those cars.

Blum: Did they sell them as housing?

Goldberg: No, they sold them as freight cars to Aramco. I think Aramco was an acronym for something [Arabian-American Oil Company]. The technical committee of the American Railroad Association approved our beginning manufacture of some 5,000 cars, but the executive committee rejected that approval. I think the executive committee was a five-man or a seven-man committee, with a very large majority of them coming from the steel industry, and I don't think they were about to approve the freight car in spite of the fact that we had passed the tests and in spite of the fact that they were less expensive and in spite of the fact that they didn't use steel that wasn't available.

Blum: How did that make you feel?

Goldberg: Awful.

Blum: What did that say to you as a designer of a product that was appropriate and timely and more economical for their needs but that they didn't use?

Goldberg: It was not the last time I had difficulty with the exercise of power to regulate the permissions or permits that we needed for achieving new ideas. That has happened most recently at River City here in Chicago. It was a power play, and I was certainly discouraged by the ability of executive power to impede technological advances. But I think that's the story of life, as I've grown older. Nevertheless, the Pressed Steel Car Company saw the possibility of

developing what they had developed so far into a prefabricated house, and so they built some of those in plywood for the Army. It wasn't a total loss.

Blum: Does this go back to something that you did about ten years before, and that was the crate for the guns that were transported and then turned into housing?

Goldberg: Yes. The technology was advanced in what I did with Pressed Steel Car Company because of the machinery that they had available. In the first place, we designed a press that could provide or produce a slab of plywood ten-feet wide and of infinite length. We could make a slab of plywood sixty-feet long. In the second place, part of the invention, which we patented, was in the ability to take these individual panels and convert them into a structural tube. It was the kind of tubular construction that gave us, really, an advantage that we had never had in manufacturing the plywood during the war and before the war. There we had to deal with panels and assemble panels very much the way the steel freight cars were made.

Blum: Did you design a plastic freight car as well?

Goldberg: What I call a plywood freight car is truly a plastic freight car because the plywood was used, basically, the way fiberglass, for example, is used in plastics today or carbon threads are used in plastics—to reinforce those structures in tension. We didn't have access to that material at that time. It was built very much like the mosquito bomber was built during the war, with laminated construction.

Blum: Is there a connection between your work in the plastic or plywood freight car and the prefabricated house, the [John] Snyder house, on Shelter Island?

Goldberg: Yes. The Snyder house actually was built of freight car units.

Blum: The pictures are so dramatic. The material has a sheen to it. In the

photograph it looks like steel.

Goldberg: No, we used mahogany plywood and left it natural. It may very easily have been the gleam off some of the large window expanses that we had. But the Snyder house was made out of, I think, seven or eight units that were spatially derived from the freight car. It was made here in Chicago and shipped by rail and then shipped by boat and then finally shipped by truck to Shelter Island, New York

Blum: It looks like a luxury house. Did you do more than one of those?

Goldberg: It was intended to be a luxury house. It was intended to be a demonstration that would take the stigma away from prefabrication and from plywood.

Blum: I came across a brochure that identified you as the designing architect for a construction management group. That was about 1953 or so.

Goldberg: If I remember correctly, what we attempted to do at that time was bring engineers into what was beginning to become a tiny, little architectural company. We brought engineers and construction engineers with us, and then tried to market our services as a unified group to design and build.

Blum: Unishelter was one of the words, I think, that was used in this brochure.

Goldberg: Unishelter was related to the prefabricated housing of Pressed Steel Car Company.

Blum: Did I confuse the two?

Goldberg: Yes. The Unishelter was a name that I gave to the product, but that was being promulgated by the Pressed Steel Car Company. The construction management group was, again, just a gleam in my eye, and I think it has come about the other way as time has gone on. It's the contractors who are

employing the architects to form a kind of design-build combination that is undertaking a great deal of construction now in the United States.

Blum: At this time, in the early fifties, was design-build an accepted concept?

Goldberg: No, quite on the contrary. The American Institute of Architects specifically forbade architects to participate in construction of their design. The role of the architect at that time was meant to protect the owner against the vagaries of construction, and it was felt that if the architect had an interest in the profits to be derived from construction that he could not discharge his aesthetic and moral obligations properly to the owner.

Blum: Were you a member of the AIA at the time?

Goldberg: I don't think I was. I think I became a member of the AIA later, something like 1955—perhaps even a little bit later.

Blum: Were you aware of the fact that the AIA did not look favorably on this kind of architect-engineer combination?

Goldberg: Oh, yes. But I could not, certainly, understand why an architect couldn't retain a moral position in his profession and also try to undertake the kinds of things which European and South American architects had been doing for several centuries. It's not new in the profession. There is Nervi in Italy as a great example who built outstanding structures and designed them and sold them as a complete building to his clients.

Blum: You're not alone in feeling that way. I know there are other firms and architects and designers who felt very much out of the mainstream for just this reason during those early years. Now today, of course, it's what everyone seems to want to do.

Goldberg: I think so. Well, not everyone. I have always been surprised that large firms

like Skidmore, for example, never undertook that. If Skidmore had undertaken the construction of their buildings, and rather had affiliated with a construction group and delivered a whole package—I suppose they had very good reasons not to, but I think that they could perhaps have strengthened their position enormously if they had.

Blum: Before we leave the prefabricated chapter in your life—and I don't think we ever leave it; I think it has its residual throughout your career—you built a kitchen unit. How did that come about?

Goldberg: That came about quite naturally from the architectural development of the bathrooms because, basically, the economies for low-cost housing come in consolidating the pipes and the electrical connections and the utilities in a house, to whatever extent is possible, and backing them up bathroom to bathroom or bathroom to kitchen was a perfectly natural thing to be interested in.

Blum: This was something that could just be plugged into a space?

Goldberg: Yes. We used elements of that, for example, at Astor Tower Hotel. We used elements of that in private housing, and we used elements of it in the house where we're sitting, in the kitchen upstairs which I designed thirty years ago. But as a favor and as a kind of entertainment for myself, I'm re-doing now the Katzin house that I designed more than fifty years ago, in 1938. There we had designed some of these same prefabricated elements. We designed and I built the overhead refrigerator that we used extensively in the Katzin house, and which made possible new designs in the way in which people could use the kitchen.

Blum: Given the hindsight of more than fifty years, how would you now assess the success of these features as well as the house?

Goldberg: The success of the features was abruptly curtailed by the fact that some of the

people who bought the house in between the Katzins in 1938 and the present time ripped out the kitchen and put in a GE kitchen, or whatever it was. The present owner wants me to redesign the kitchen in the same spirit, if I can remember it, that we had originally designed it. It's rejuvenation rather than restoration.

Blum: How does the house look to you today?

Goldberg: The present owner is absolutely wonderful and is physically undertaking to do many of the repairs himself, so he's getting the spirit of the house in the fatigue of his arms and back as he takes off some of the junk that had been applied over and over again to things like the natural brick and natural stone and paint over wood—the beautiful wood veneers that we had. There is enough of the house, though, to save, and the house has really come alive under his enthusiasm.

Blum: Where is the house located?

Goldberg: At 4820 Greenwood, in the city. He enjoys it, his family enjoys it, and his children enjoy it.

Blum: That must give you a lot of satisfaction.

Goldberg: It gives me a great deal of pleasure.

Blum: During those years when you were doing construction—management, working on prefabricated ideas—did your office grow in the late forties, early fifties?

Goldberg: No, I don't think it grew. I think our first large job—well, basically we had the commissions from the military and from the federal government during World War II.

Blum: These were the housing commissions?

Goldberg: Yes. To build the four hundred and fifty houses and the roads and the sewer system and all the rest of it was not exactly a small job for us. Our factory employed about four hundred or five hundred people, so it was not really a small undertaking. But after the war, my office was sort of split between architecture and the manufacture of these various things that we had undertaken. We maintained a small office, I think, really up to Marina City. At the time we did Marina City I don't think we employed more than eight or ten people as an architectural office. When we did Marina City we really started to launch ourselves into a much larger office. A large architectural office gives one power to produce plans quickly, but it destroys the ability to control detail and to participate in the day-to-day decisions. It becomes more of an administrative task once you have developed the design and the major idea.

Blum: What you've said so far about your career strikes me as being unique in one sense that I really have never heard before, and that is that often you had the ability not only to design—I assume you would design, being an architect—but also you had the ability to either meet or interest people who could help you finance these ventures.

Goldberg: People like to make money out there, and when you stop to think, the ways in which you can make money have certain limits. Assuming that you're not talking about architects at this moment, you can make money in your own company of whatever sort it is, you can make money in the stock market in other people's companies, and you can make money by investment. I think that the people who have money to invest are interested in new ideas. I have always felt that there is a certain amount of risk in any new idea, but there is also the pleasure of creating new ideas and participating in them. I think most of the people I have been with have always enjoyed that—the participation in new development.

Blum: I comment on that because I think it's a unique feature, and also I think you've been very privileged in that way—maybe to be smart enough to interest people who had money or simply to know them and have them go along with you, maybe because they believed in what you were doing.

Goldberg: Going back into prefabrication, I think there were lots of people. National Houses was an outgrowth, I think, of Inland Steel Company, and they invested a very substantial amount of money in prefabrication. Lustron invested, and I'm trying to remember whether that was a set of individuals who joined together. In the instance of our prefabrication, we had just banking groups who wanted to participate in this with the idea that they would make money.

Blum: You refer to your office as "we." Who did "we" include, besides you?

Goldberg: Well, "we" included all the people who worked alongside of each other in order to produce these things, and they changed from person to person.

Blum: I know that Lee Atwood is one name that surfaces in your office at this time.

Goldberg: Right. I don't remember some of the names. At Marina City, for example, we had Frank Kornacker, who was quite well known and who had done Mies's engineering before he had worked with us.

Blum: Was he part of your everyday office, the eight people?

Goldberg: Oh, yes. Frank was in charge of our structural engineering, but that came after I undertook the Marina City commission. That was some years later. During the war I had the assistance of a building contractor-engineer type by the name of Bill Ahern, and I don't know what's happened to Bill. We went our own ways. I was more interested in the engineering aspects of it, and he was more interested in making money out of production.

Blum: Assuming you have this staff of eight, how did your office work? Who did the designing? Who went out and got clients? How did this function?

Goldberg: I think I was almost always responsible for going out and getting clients and doing the designing.

Blum: I've heard stories that Mies would design something and then people would do detailing.

Goldberg: I didn't have that luxury.

Blum: What function did, say, Lee Atwood serve in your office?

Goldberg: Lee and I both were at the drafting board. We both were doing detailing. We both were looking at each other's designs. Gilmer Black did some drafting at the time and did some design critique at the time. Then we would have draftsmen. If we had major work we would use outside engineers, but for most of our work we did our own engineering. We didn't have major structures. I did all the engineering myself on houses because the structural engineering was not a really major problem in those things. I didn't get into major structural engineering until, really, Marina City. I used to use Frank Nydam for structural engineering. We used Frank on the first prefabricated house I did and, of course, the engineering details were so massive that we couldn't install them. He designed it as if a wind were going to come and blow them away. This small engineering is a skill all of its own.

Blum: You were always very much into engineering as a companion to your design.

Goldberg: I don't think that's unusual. I think all architects have training in engineering, but I was licensed, and still am licensed, as an engineer and an architect.

Blum: Were there ever any clients who came to you to do things that you would not accept?

Goldberg: I didn't have very much of that problem, if any, because the people who came to a young architect really wanted his ideas. You must remember also that the time was vastly different than it is today. In spite of the fact that the meanest and most painful part of the depression was over, the feeling that people wanted something new was prevalent. That seeking of a new world or new ideas was prevalent certainly right on up through 1960 when I designed Marina City. Look at Marina City as an architectural concept. Certainly it not only was new from a viewpoint of design, but it was structurally vastly innovative. How would one have done that without other people around him, bankers and owners, feeling as if there could be a new world?

Blum: Did you enter any competitions?

Goldberg: I have entered only one competition in my life. We've gotten prizes as a result of the work we have done, but a true competition I only entered once. That was for an opera house in Madrid in about 1963 with some European architects.

Blum: At this time, did you feel the impact of the growth of the suburbs and the change in our housing patterns that it caused?

Goldberg: Yes. There is a related statistic that *Architectural Forum*, I recall, ran in an article in the fifties when Howard Myers, I believe, was still editor. It pointed out that the federal government since World War II had invested for every person who lived in the suburbs or who lived outside the cities more than $3,000—in contrast to a figure of about $85 for every person who lived in cities.

Blum: How did they invest?

Goldberg: Through FHA, through grants, through bond issues and various other kinds

of financing which the government does. I felt as if our prefabricated house, which obviously was not intended for the city, was intended for this growth of the suburbs, but the issue of urbanism had never occurred to me in those days. The role of the city in society had not really been apparent to me. It wasn't until some time in the fifties that I met [William] Zeckendorf in New York. I mean, he put his mouth where his money was. Zeckendorf had enormous investments in the city. That was his business. But he also understood what made the city a money machine. He understood what people did in the city that caused them to make money for realtors in the city. I became sort of interested in another aspect of architecture—not interested alone in architecture as a series of individual projects. Somebody would come in and want a house in the country—okay, I'm doing a house in the country. Somebody wants a house in the city—okay, I'm doing a house in the city. But to see how those various projects began to influence other people's lives, who weren't our clients necessarily, became a matter of interest to me, so I really became immersed in this thing called urbanism.

Blum: In 1954 you designed the Drexel Garden Apartments. This was a project that was to be integrated, and that was a sensitive issue at that time. How did that work? How did you become involved with it, and then how did the social aspects of that project shape up?

Goldberg: That was a time when I had our engineering staff, and we were in the midst of designing and building. We were trying at that time to do affordable housing.

[Tape 6: Side 2]

Goldberg: Now, we found a piece of land that had been owned by a meat packer by the name of Morris. I can remember that it was rather symbolic for me that as they were digging the first foundations they discovered a marble fish pond that had been buried by some of the wreckage from Morris's house. Our office, together with Arthur Rubloff's office, decided that we would put

together a group. We each invested, I think, $4,500, and there was a group—I forget how many of us. But anyhow, we invested the equity money as a group, and we built sixty-four houses there, which sold for, as I recall, $13,000 or $14,000 apiece. It might have been $12,000.

Blum: Were these garden-type connected row houses?

Goldberg: Yes, but where one house had been we installed sixty-four houses. These were sixty-four three-bedroom houses and, as I say, with kitchens and bathrooms and laundry machines and so on.

Blum: Was this meant to be low-cost housing?

Goldberg: It was not any more expensive than what the federal government at that time was paying for housing for the poor.

Blum: But it was meant to sell to private families of middle-class means?

Goldberg: Well, anyone who had $13,000. But I envisioned that there were a great many younger families, particularly those who had come back from the war and who had access to private financing. These were fireproof houses. They were built of concrete block and concrete. They're still there at 48th and Drexel.

Blum: I know they had serious problems with integration. What was the neighborhood like at that time?

Goldberg: They did have serious problems with integration, and they would not permit us to integrate. We had white customers for these houses—young, white families who wanted to move into them cheek by jowl with black people, which was certainly new at that time. The banks that financed the mortgages on those houses said they would not tolerate that. We couldn't do it in 1954. It had to be solid black. I said, "But we have white families who wish to move in." They said that any white family who felt they could live next door to

blacks was either crazy or liberal, and in either case they weren't good mortgage risks. I can remember that quotation. It has stuck with me for all these years. And so we really couldn't look to the white market at all.

Blum: So your idea about urbanism was somewhat restricted by the outside forces.

Goldberg: Yes. We had other innovative things there. We formed a little corporation that was a water company. Obviously, the city was delivering water to the project. I designed the water piping to a single meter for the city, and then we had the water distribution from that single meter to other meters. People paid their own water company—they all had a share in the water company—but they paid their water bills to the water company, and then the water company used that money to maintain the sixty-four houses.

Blum: Did you invest in the water company?

Goldberg: No. We sold the property and sold the houses to the sixty-four buyers of the houses. I have no idea whether they have kept up the water company, but the water company was meant to carry on the upkeep. We had a little playground there. We had sidewalks and various other things to maintain and the water company income would maintain them. There was no such thing as a condominium law at that time. At all events, this had been subdivided into sixty-four little plots of ground, so each one owned his property. We tried to envision an affordable way that people could live in the city.

Blum: Another project that you did about that time in the garden apartment mode was in Mobile, Alabama.

Goldberg: That was never built. We designed an island there, Pineda Island, and that went on over a long period of time. We also designed some garden apartments there and some office buildings. There was a life insurance company down there owned by a man named Wilkinson, who died. He had

visions of reestablishing an island which the Spaniards originally had developed down there, but using extremely modern and innovative ideas. Later on that was taken over by a Philadelphia group who wanted to have a sports club, and we built a rather attractive swimming pool. But that was as far as it ever went—a swimming pool and a sports club.

Blum: Was that the Pineda Island Recreation Center?

Goldberg: Yes. Whatever it's called. I don't know now.

Blum: Among your work that I have seen in photographs, that was one of the first, if not *the* first, building—I hate to put it this way because I know you've said, "People think of me as the architect who designs round buildings"—but in fact it was a circular form, was it not?

Goldberg: I've forgotten. We designed many things down there, and I can't remember. The hotel around the swimming pool was a great big circular form.

Blum: Was that Motel 66? Was that part of it, or were those two separate projects?

Goldberg: No. Motel 66 was for Phillips Gasoline Company. That was a circular form. I was interested in circular forms at that time because I had learned quite a bit about the fallacies of rectilinear forms.

Blum: Allan Temko calls these two projects—the circular buildings on Pineda Island and Motel 66—predecessors to Marina City.

Goldberg: Right, they were. You see, by that time I had had experience with a tube instead of a box in the prefabricated house and boxcar. In retrospect, the tube, which is simply a cylinder lying on its side, was an introduction to me of a new structural form. I had lost my sense of derision of Corbusier and his various sculptural forms, and I had become interested in forms other than the box and forms other than the rectangle because of their superior structural

properties. Now, I have no idea whether I simply stood the tube up in the air or whether I was thinking of other things, but the economies of a tube—the beauty of the monolithic quality of stress distribution as compared with stress concentration in a vertical box—was quite appealing to me. In the beginning I was afraid of the circle. Don't misunderstand me—it was not in the vocabulary of the Bauhaus. It was not in the vocabulary of Mies. The so-called classical perfection of Mies's rectilinear line and his rectilinear cubist design life was a very impressive thing. Certainly I was under that influence, and I desired ultimately to achieve that kind of platonic perfection that one can very easily attribute to a Miesian building. But nevertheless, I was sort of flirting, if you will, with other forms.

Blum: On another level, what had happened inside of you regarding Mies? When did you part ways with him, in a sense?

Goldberg: People don't understand that I never parted ways with Mies. Architecturally speaking, I never parted ways with Mies. Mies may not recognize that, but I recognize that. The discipline of taking a total design and out of that totality working out the details, the discipline of creating an aesthetic out of the structure, the discipline of seeking an alliance with an industrial world, that discipline I still have. It is even more rigorous with me than it is with somebody who uses the yard goods of the post-and-beam structures the way Skidmore, Owings and Merrill does. Why? Because with that freedom that I have in new forms which I know how to engineer, there is the necessity for maintaining the purity of the idea in a new way. But I have to examine things much more carefully than someone who simply draws boxes. Our life in designing these rather unusual forms of buildings is much more rigorous in self-examination as we proceed than it would be if I explored doing another cubist tower downtown. So there has not been a parting of the ways. There has been new invention added to the disciplines that I learned from Mies. Certainly to that extent I have not parted ways, but I have added to what Mies was seeking. Mies was seeking a modular uniformity that could do many things, but not necessarily adapt itself to the humanism that is required

in our period. He rather imposed, and he said to me, "I will teach people to live in my buildings." I say I will seek the buildings that permit people to live. There is a difference in attitude toward the user but Mies comes out of a different period. Mies is regarded as a modern man, and for me Mies is a wonderfully modern man of the 1890s or 1900s when people were seeking a universal in almost everything. Einstein's $E=MC^2$, Freud, Marx—everyone was seeking a way to achieve a universal that could solve all problems. We are long and far past that.

Blum: I thought I heard you say that you didn't think that the professions had achieved what they said they wanted to do, and that was to apply industrial forms to buildings and other things. Is that what you discovered in these drawings?

Goldberg: Right.

Blum: I can see, from the floor plan of Marina City, how forms are repeated and how they, out of, say, a few elements, form the entire thing. But isn't that what you said wasn't happening?

Goldberg: Other architects, including myself, in designing cubist buildings, which really had their origin in the late nineteenth century—this is not modern architecture in the sense that modern means architecture of today. Cubism is a development which came forward in 1890, 1900, and I have traced, really, the essence of this back to almost the seventeenth century or the eighteenth century, certainly. These ideas of how cubist architecture should perform were finally illustrated by industrialized regularity. This was merely a certain concept, and "certain" is the operative word here. It's a limited concept. It goes back to Charlie Chaplin's *City Lights*—those great wheels and that straight line of production. It goes back to Mondrian. It goes back to van Doesburg. It goes back to the fact that the minimalism of the straight line in various combinations could produce a vocabulary that was suitable for almost anything. You know, finally the architecture of rectangles became

boring—it wasn't boring; the cubism isn't boring. The light and shadow of cubism can be a very intriguing thing. What was horrible about it was its indifference to the human condition. This was very clearly said by someone else, a friend of mine, Klaus von Grabe who was at the Bauhaus. He said to me once, "You know, when I look at the plan of a Miesian building, I know what the building is going to look like in three dimensions. When I look at a plan of Frank Lloyd Wright's, I don't know what the building is going to look like until I see the building." Now, you can extrapolate that into what I am describing here. Frank Lloyd Wright certainly was not an industrialized architect, but what he was concerned with was the composition of what one might call humanistic spaces—spaces that attract the eye, spaces that have a message to people for usage or for physical experience. Some of that Mies had, without question. The Barcelona Pavilion has a great deal of message to people. But when placed into office buildings, when placed into apartment buildings—an apartment building being the same composition, almost, as the office building—the message was quite a different message from the one that Frank Lloyd Wright conceives of. Mies's message was a message for a universal person. It was a universal message for a universal person in Mies's case. Frank Lloyd Wright was designing for individuals and designing for their individual changing experiences, and that, it seems to me as I grow a little older, is what happens to society, or what has happened to society since the thirties, certainly—an awareness that humanism involves certainly the restoration of the individual experience.

Blum: Were you aware of these ideas in the fifties when you began to design in another mode? The design of Motel 66 is two circular towers on a rectangular platform. Were those ideas in your mind at any level in this design?

Goldberg: No, not as I am giving them to you now. There is always the danger, of course, of *ex post facto* proving that you had such an idea or were impelled by such an idea, and I don't wish to fall into that trap for myself. But I was impelled by something to investigate other forms, and I can best tell you that experience in a story about the design of Marina City. When I had designed

Marina City and when we had FHA approval—the financing was in place—I went to Bill McFetridge, who was the head of the janitors' union. Now, I say that with some degree of malice because Bill was one of the most unusual men I have ever met in my life. A great man, brilliant and sophisticated, and yet publicly he was a labor stiff; he was corrupt in many ways as the labor movement was corrupt. He was a manipulating politician. He was a number of things that obscured his humanism and the realization of his role in heading a union of twenty or thirty thousand people. He understood that he had a responsibility beyond that of simply being a labor stiff. Now, I said to Bill McFetridge, "We've designed this unusual plan and it's been accepted. We are moving on, but I'm scared to death. This has not been done before. I don't know how people will receive it. I don't know how it will be marketed. I propose that we build a mock-up of this, a full-scale mock-up of this, and that we have it furnished. Not by us, because I can design the furniture that would make it look spiffy, but that we ask Marshall Field's to furnish it out of things they have in their store so that we know that in these unusual spaces, available furniture can be a practical installation." He said, "How much will this cost?" and I said, "At least $50,000." Now, in the year 1959, $50,000 had a value today, as we are talking, of probably several hundred thousand dollars. So we weren't talking about a small amount of money, and we were talking about something that was going to be a test of what had already been approved. I took over a floor in a loft building, and we rather skillfully installed that unusual design form. We did a one-bedroom apartment and an efficiency apartment. We built the balconies, and I hired a helicopter to perch itself at about the height of the fortieth floor and to photograph the skyline at that point. Then we had very large photo murals done from that. They were perhaps ten feet high. When you went out on the balcony terrace of the mock-up it was lighted in such a fashion that you thought that you were standing out in the open, looking at the skyscape around you. We had Marshall Field install the interior, and we brought in people, lots of people. We brought in the whole janitors' union, invited them to come down with their wives to see what we were going to be building. Did they like the apartment? We took surveys as we went along. We invited bankers to come

in. We invited the FHA to come down from Washington to see what they had insured. Fortunately we had a high pass. But what happened to me, again, was absolutely seminal. What I discovered was that these spaces that I had designed as the absolute minimum allowable spaces under FHA regulations invariably were examined by the people who came in to see them as being wonderfully large. "Oh, these rooms are so large and they're so wonderful. How much rent are we going to have to pay for this?" and so on and so on. There I was with this terrible information, "No, this is the smallest efficiency apartment that we are allowed to build. No, this is the smallest one-bedroom apartment we are allowed to build." Would I tell these people these things? Well, obviously I didn't tell them because I didn't wish to discourage them. If they thought they were large, it was fine with me.

Blum: How do you account for the perception being so altered?

Goldberg: That was the big issue. That was the seminal issue—the fact that space, that the design of space, that the variations of the design of space could influence human behavior and could influence human perception. Now, we do all kinds of little tricks in design, and that we have those tricks available to make people see what doesn't exist, is part of any good architect's stock in trade. But the vast discovery of the space and the influence of space, and the fact that as people walked into a space that was constantly moving, and that your voice in such a space has a different quality than it has in a box-like room, that the reflection of heat from the walls is not constant but is changing, that the quality of light that is in that space is not constant but is constantly changing. All of these things began to become apparent to me in a way they had never become previously apparent to me in a box. I began at that point to make the acquaintance of various people who were interested in the same subject. Edward Hall, for example, who wrote *The Hidden Dimension*—Edward Hall had been examining the difference in spaces required by different ethnic groups and how they responded to space in terms of privacy or in terms of personal experience. Karl Menninger asked me to design a normal space so that he could begin to measure people's

behavior against a normal base. Obviously, that was an impossibility. I told him if he could define a normal person, I could design a normal space. That was opening a whole new investigatory route for me, in addition to the fact that since that time I've never seen a room the way I had seen it prior to 1955. I've never seen a space without being sensitive to its effect on human behavior. So you ask, have I split from Mies? The answer is no. I've just added this information to what I had from Mies.

Blum: Can we back up for one minute? You said you went to Bill McFetridge of the janitors' union.

Goldberg: Actually it was the International Union of Building Maintenance Employees.

Blum: Why did you select Bill McFetridge? Had he hired you to do a building?

Goldberg: Yes. He was my client.

Blum: And he didn't know you were going to come out with a radical new concept?

Goldberg: Oh, no. I had designed Bill McFetridge's offices. I designed a fairly large office for his union. He said to me on that occasion, "You know, I have always been concerned about my union and what is happening to the members of my union as the suburbs become more and more populous. My people cannot get jobs out in the suburbs. People move to the suburbs to avoid paying my people the wages that we need to live. If I could persuade people to come back into town to live by showing them a desirable way of living in town, I would like to do that. Do you think you could design such a thing for me? Could you find me a piece of property where we could build a small demonstration of this?"

Blum: Where did you get the idea to build something so radically different?

Goldberg: To a certain extent the property made it possible. It was a unique piece of

property. He became interested in that unique piece of property, and he authorized Charles Swibel then to buy that piece of property for the union from the Northwestern Railroad Company. He paid, I think, three million dollars for that, and that was the last money he put into it. That was the first and last money he put into it.

Blum: Was that the janitors' union money?

Goldberg: Yes, that's right.

Blum: Was Swibel working for the janitors' union then?

Goldberg: Swibel was a real estate operator at that time.

Blum: Was he a broker?

Goldberg: Yes. He owned property—largely slum properties—and they had a little real estate bank. Bill McFetridge and Charles were very close friends, and Chuck Swibel did Bill's real estate development for him.

Blum: Was it about that time that there were some newspaper articles about Swibel having a conflict of interest with the bank and slum property?

Goldberg: I don't remember his conflict of interest with his bank. I know that he had some problems. He was sued by some people whose property he managed, but that was later.

Blum: How did you feel about being connected to the union, with known politics, corruption—give it whatever name applies—and Chuck Swibel? Did you feel compromised being connected with them?

Goldberg: It was one of the most interesting periods of my life. Let me say that to you so that you have no illusions about my illusions. These were men who for

different reasons wanted to do something. I told you why Bill McFetridge wanted to do what he wanted to do. Now, I don't know of any real estate developer in the last ten years downtown who has wanted to demonstrate to people a better way of living as a mission. It couldn't have been done by a banker. It couldn't have been done by a normal real estate guy. I mean, here was a tough union operator who had come up the hard way. He had little education beyond high school—I don't know that he even finished high school. But he was an enormously shrewd man and enormously wise man and he knew people. He taught me more about how people lived and reacted to daily living situations than anyone else could have done in such a short period of time. So far as Swibel was concerned, Swibel believed in other people's greed and he operated in that fashion. Swibel never owned that property, but he understood how the people who owned that property wanted to handle it. He understood what everybody wanted from different situations. He understood more about other people's greed, perhaps, than McFetridge understood. Swibel had no illusions and he, in a sense, did the things that other people wanted to have done for them but wouldn't do themselves.

Blum: Your background was so different. I'm somewhat surprised that there was anything that you found to connect with them.

Goldberg: My background was totally different, but they loved my ideas. They were amused by my innocence to a great extent, and they respected my work. In a measure, it was a perfect combination to build Marina City. It could not have been done by normal real estate or investment people. They wouldn't have touched it. In fact—it comes back to me—I had gone to Arthur Rubloff, again, whose background was considerably different from my own but nevertheless who had all the earmarks of being a good citizen and a respectable person. I went to Arthur Rubloff in 1955 and I pointed out to Arthur Rubloff a piece of property on the river where the Sun-Times building now is. It was vacant at that time. I said, "Arthur, this is a wonderful place to build apartments for people." Arthur's response to me was, "Who wants to live downtown?"

Blum: It sounds like a silly response today, but in 1955 it was probably a response that many people would have given you.

Goldberg: Or would have endorsed. But when I showed this to Bill McFetridge—Swibel, McFetridge and I were having lunch at Fritzel's, which was McFetridge's favorite place. I said to Bill McFetridge, "You asked me to find you a piece of property. We have nine pieces of property, eight of which are within the budget that you suggested to me, and the ninth of which is too rich for your blood." He said, "What one was that?" I said, "We can walk out of Fritzel's here and I'll show it to you," and we did. The three of us stood out there on the sidewalk and I said, "There." He looked at it, and he said to Chuck Swibel, "See what you can buy it for." Chuck Swibel succeeded in buying it without any money until we had the FHA approval, until we had all these other things that gave us assurance of success.

[Tape 7: Side 1]

Goldberg: Bill McFetridge said to me, "How long will it take you to get approval for this project?" I think at that time it was June or July. I said, "I don't know, but certainly by this time next year we ought to be in shape." He said, "I will give you until September or October," whatever date that was. He said, "If you can get approval from the federal government, from the FHA, by that time, we will go ahead with the project." Today we would say Swibel got an option on the land for no money. That was his skill. I went to the FHA and I got an approval for a certain amount of money, but it was a million dollars shy of what we needed. We had only until the next day at noon to get FHA approval, at which time Bill McFetridge would say, "I'm going to release the land," and I think he would have done it. I don't know what his response would have been had we tested him, but I felt at that time that he meant it. I went to John Waner, who was head of the FHA. Now John Waner is also a leader of the Polish community of Chicago, and I think he is still alive. He was a real estate developer, and he also had a sheet metal business. He

received this appointment as head of the FHA here in Chicago, and he thought the Marina City idea was just great. I went to John and I said, "We are a million dollars shy, John, and at twelve o'clock today it will be too late. I either have to have your approval for another million dollars by twelve o'clock or the project is dead. John, analyzing that million dollars against the whole transaction amounts to the fact that you have to increase the rental income of each room in this project by fifty cents a month. John, is your judgment so accurate that you think that we could not get fifty cents a month for each room as an increase in our rental income? That will produce the increased value for another million dollars." John was flabbergasted.

Blum: Where did you come up with those statistics?

Goldberg: I had done my homework. John called in his chief underwriter, and he relayed the whole thing to him. The two of them looked at me and said, "We'll give you the fifty cents a month." That was the base rent. "We will appraise this at fifty cents a month greater income per room, and that gives you another million dollars." I said, "Now give me a letter that I can take to Bill McFetridge in a half hour." They had the letter typed, they signed it and I took it over to Bill McFetridge and I said, "We're home."

Blum: It sounds like a cliffhanger, but people believed in you and you had done your homework.

Goldberg: People believed in themselves. Who was I for them to believe? I had no track record. People believed in themselves. I was not asking them to believe in something that I had done before. I had never done it before. My early drawings on that building are for two rectangular towers. I didn't dare show anybody the circular towers—I mean, to show people that they were going to live downtown, which in itself was new, in two high-rise towers, which was new. These were the highest apartment buildings in the world at the time.

Blum: Did you show the circular form to the FHA to have it approved or did you

show the rectangular drawings?

Goldberg: When we wanted to have the land approved, I showed the rectangular forms, and when the newspapers announced it, they showed the rectangular forms. The approval for the land came first. I got the land approved, but the approval of the project had to follow the approval of the land. We did not buy the land when the land was approved because that was only the first step.

Blum: I would like you to go into detail about this, but I think my bottom-line question is, how did you pull off circular buildings to people who saw it as something radical, new, different, unusual? And you switched. What do they call it, bait and switch? I'm not saying you did that, but you showed them one thing and produced another.

Goldberg: No, I didn't mislead anyone. I came to them with something they were familiar with, and so they took the first step and said, "Yes, we can approve the land, and yes, we think people will…" I had a study commissioned by the Central Area Committee, a group I belonged to. It was a group of downtown businessmen. They had had a study made by the Real Estate Research Corporation in 1952 or 1953 which showed that lots of people wanted to live downtown. Real Estate Research had already said lots of people wanted to live downtown. I had gotten that idea from [William] Zeckendorf, going back to my enthusiasm for urbanism.

Blum: But how could an astute developer—that's what he was, a real estate man like Arthur Rubloff—say, "Who wants to live downtown?" when he saw the property that you showed him in 1955?

Goldberg: Either he hadn't done his homework or—people believe figures in strange ways, and there were the figures to be believed if you chose to believe them. But if you are accustomed to handling real estate on Lake Shore Drive for people to live in, then living downtown has another message, which Arthur

Rubloff wasn't accustomed to. Five years later I showed people what their own statistics proved in this location, and at that moment they said, "Fine, the land is great." Then I knew I had to design something that had far greater efficiency than anything that had been done before, because I had to design for low rents. In order to induce people to live downtown, I had to have an exciting environment—a total environment. As my mother-in-law said, it was like living above the store. I had to produce an exciting environment, a total environment, and also the price for living there had to be a bargain.

Blum: To what audience of renters were you appealing?

Goldberg: Originally I was appealing to an audience of renters that I felt would not mind being identified with the sponsorship of the janitors' union. Our efficiency apartments, for example, were $115 dollars a month, without utilities, but the base rent was $115 a month. The most expensive apartment, I think, was $400 a month for a two-bedroom apartment.

Blum: When did Marina City actually become occupied?

Goldberg: In 1962, I believe.

Blum: In 1962, was $115 a month was not a lot of money?

Goldberg: No.

Blum: Who could live in a studio? Certainly not a family.

Goldberg: No, but you see this is partially how—I had to go to Washington and persuade the federal government that this project was appropriate for their regulations, because the regulations of the federal government stated that the FHA was for family living. In those days Arthur Rubloff thought of the family environment as being the typical two-parent, two-young-children, sandbox environment. I pointed out to the federal government, through the

Department of Labor which I had access to through Bill McFetridge, that there was a totally new family constituency, and that much older children were living at home and much older children were living out of home on an independent basis who still considered themselves as part of an extended family composition. We persuaded the federal government, by those arguments, to change their regulations. The original one was that it was for family living with children. The purpose of the FHA was to promote family living with children, and children were always looked upon as sandbox children. John Waner got them to change that to a very simple statement—the FHA was for family living. Today a family unit can be regarded as one homosexual, so there has been a vast change in this whole concept. When we designed Marina City with its multi-use, mixed-use composition, it was against the zoning code. You couldn't combine those uses. There has also been a change in the zoning codes.

Blum: By mixed use do you mean office building and residential and recreational?

Goldberg: Yes. It was against the building code, against the zoning code. But we had good people in government administration, Ira Bach, for example, who was head of the planning department of the city. The chief architect for the FHA loved the idea. He loved my design when I came to him with the circular design. He recommended it to the underwriter, and the underwriter said, "Well, if you are recommending it…" you know. Then I took it to Washington, and I showed it there and they liked it with some degree of hesitancy. Almost six months after we broke ground, they wrote me and they said they were beginning to question whether we should not re-examine our design and build a square building. By that time it was quite amusing. We couldn't do anything about it, but the nonsense went on.

Blum: In your idea, who would use or who would live in Marina City? Were children included in your concept?

Goldberg: No, not sandbox children. There were no schools there. There was no

recreation there. We took a very specific section of people who worked downtown, and couples. Single persons and couples were a vast market.

Blum: What is the largest apartment in the building?

Goldberg: A two-bedroom.

Blum: Studio through two-bedroom, so it definitely would appeal to a young adult population.

Goldberg: Yes.

Blum: Before we go forward, could we look back to the early things in the circular form that had been done in the country? You mentioned Bill Zeckendorf, and I know that he had built a circular tower in 1950.

Goldberg: It was not built. I.M. Pei had designed it for him. It was during the fifties. But it's totally different. Pei's tower had a helical form, mine had a circular construction. I built a tube, he designed a post-and-beam structure without corners.

Blum: I saw a similarity to Marina City because both buildings have a core.

Goldberg: No. I examined Pei's, but I also examined the Temple of Diana in Rome. When I started to do this I examined every circular building that had ever been built that I could find.

Blum: A cylindrical tower was built in 1959 near water in Japan. Was this one too late to help you?

Goldberg: Yes, it was unknown to me.

Blum: Did you pick up any ideas while you were there, or did you have your own

idea and then do your research?

Goldberg: No, the only idea I picked up was the idea of the traveling crane. That was a new construction idea that we almost designed around, because without that crane we never could have kept pace—we built a floor every day at the Marina City towers.

Blum: There was a building that was planned but not executed, unlike Marina City where you began with, or at least you showed, a rectangular plan and built a circular one. Executive House in Chicago was originally planned as a circular building and then executed as a rectangular building.

Goldberg: That I don't know. I've never seen the circular design for that.

Blum: Do you think many people were toying with the idea of new forms?

Goldberg: Oh, yes.

Blum: Were they toying with especially the circular one?

Goldberg: I don't know about the circular form. Once the building was up, everybody told me of buildings that had copied me or buildings that possibly inspired me, such as the one you're bringing up and which I am familiar with. Just to go back to that I.M. Pei building, that I.M. Pei building was a kind of staggered spiral. It wasn't a continuous spiral, but it went up, I think, a half a floor every so often and wound itself around like a staircase. It was a totally different concept. Possibly the fact that somebody else had projected a design like that which was never built gave me a feeling of security, but I don't remember that.

Blum: I read that your use of the circular form had been inspired or influenced—I'm not sure what the exact word you used was—by the rose windows in some French cathedrals.

Goldberg: No, I wasn't inspired by it. I found a strange coincidence later on, as I made studies of the plans, because once I decided on the circular form, I tried to investigate all buildings where it had been used. Fred Severud was my structural engineer in New York, and he and I worked very closely together. I had wanted, actually, to build a central core, which we built as a tube that would contain the elevators and the stairs, and cantilever the floors from that. Fred Severud discouraged me from doing that because the risks were so great. He said, "It might work, but you're doing so many things that are for the first time, save that for the second go-round." Actually, we did that at the Passavant Hospital, at the Prentice Hospital. Oh, the rose window. Once you have decided on a circular form, then the question is, how many divisions do you create in a circle? The number of divisions that you can create are influenced by a great number of things, and I won't try to tell you all about them now. But I then examined on my own the geometry of this problem, and my recollection is we provided sixteen petals on one floor. I sort of manipulated around whether it would be sixteen or ten or twelve or twenty, and my newer building that I have designed and have not yet built will have twenty divisions as a more efficient kind of development. But later on I discovered the lotus pattern in Japan also had sixteen or eight; yet occasionally there are others that have odd numbers. I discovered as I examined these other plans was that the earlier rose windows of the earlier Gothic architecture, generally speaking, had a central core and then developed the core to the perimeter. In later designs of Gothic rose windows the core disappears—the circular perimeter remains and all elements are geocentric, but the core disappears. For me the core was a kind of platonic concept with a single truth or a single idea. Then, as the history of ideas shows, as the search for the single truth broke away into categories, the core disappeared. That was the comparison I made to the rose window.

Blum: Was this something you discovered after you had already begun working in the circular form?

Goldberg: Yes. As a matter of fact, I have a rather large banner on which we presented the various changes in our circular designs—the Raymond Hilliard houses, the Marina City concept and the ones that I have yet to build. I referred a moment ago to the core disappearing as principal ideas moved on from the concept of a single idea, but I discovered as I eliminated the core and put more concrete in the exterior shell of the building, the revised engineering produced a more efficient use of material. The building was stiffer with less material than had I piled all that in the central core—in the central idea.

Blum: Do I understand you correctly to say that the core became structurally less important but continued to exist?

Goldberg: No. The central core disappeared because it was not the most efficient. It was a very neat intellectual concept, but the more effective use of the material was achieved when I eliminated the core and put all of the material and reinforcing in the exterior shell.

Blum: Looking at a plan, it seems so reasonable to put the elevators and the service facilities in the center, which was the core.

Goldberg: Don't confuse the functional location of the elevator, the stairs and the utilities with the structural efficiency. We sort of look at a tree trunk, for the sake of discussion, and think of that as being the stem of the building. Think of the core as being the stem of the building, but that has a certain illusory quality to it because what we are really looking at is the comparative efficiency of material used at the center or used at the exterior perimeter. An eggshell is more efficient than a tree—let me put it that way—in the use of material and weight of its material.

Blum: That's a surprising statement, but I've read it before and it's been your quote. Carl Condit, the architectural historian, has said that no privately sponsored apartments attracted more attention or had been more involved in urban ecology than Marina City. Was that built into the initial concept? How did all

that happen?

Goldberg: To a certain extent it was an intention. I was faced with a mandate from Bill McFetridge to show people that it is more pleasant to live in the city and less expensive. Those are finally two of the more noticeable and notable aspects of urban planning. Marina City also produced community formation, which Bill McFetridge didn't think of but which I'm sure he felt was a natural component of any kind of urban living environment. We needed educational facilities within a building or within a community formed by a building, which Bill McFetridge probably didn't worry about in those early days. Nor did I because we assumed that education came from some other governmental action.

Blum: Are you talking about education for children?

Goldberg: I'm talking about education for adults. I'm talking about education for people. I don't regard children as being a special class of people, nor do I regard old people as being a special class of people. It's all a part of living.

Blum: I thought you said that families with children were not the audience that you had hoped to attract, therefore you really didn't have to consider where those children were going to go to school, which is always a family's concern.

Goldberg: Not only go to school but how they would go to school and how they would be transported and how we would provide things for children to use and feel at home with in their environment. In short, we paid little or no attention to the requirements of people at that phase of their life development. I come back to the question you asked me, was that intentional, was the development of—I believe the word was urban ecology. The planning of Marina City was quite consciously arranged to provide all of the components that we felt belonged to a historical attitude toward the way people ought to live. In short, living is not just shelter. It is a quality of environment that enhances the ability of people to act on their own and develop whatever they

are capable or desirous of developing. I did not try to dictate how they would develop various things. For example, I was very pleased when they founded a newspaper at Marina City, and they found some space there where they could edit a newspaper. In spite of the fact it is a condominium with all the friction that a condominium tends to build up, they have a very active condominium group.

Blum: The condominium group is active now?

Goldberg: Right. Attending a condominium meeting there is like attending an election in France, I suppose.

Blum: Do you attend the condominium meetings?

Goldberg: I attended two, I think, at a time they wanted to do some maintenance work. It was quite an experience. But there was and is and there continues to be in the future a feeling of community—it was instant community—and it was planned that way. It was planned to bring people together—first of all, on a floor, secondly, in a building and, third, in relationship to the way they worked.

Blum: What was the idea behind the residential towers and the office building, which was all a part of the same complex?

Goldberg: Ideally speaking, I would have combined it all into one building—working and living in one building, as we did at River City later on. But at the time the codes were very much in the way of doing that kind of planning. We did as much as we could. The concept of combining working and living and residential and retail and theater and health care in one arena, as it were, was specifically prohibited by code at that time. The building codes which created most American cities really were a reflection of the nineteenth century concepts developed by [Karl H.] Marx and [Sigmund] Freud which tended to split personalities of people into various components—work, play, love,

education. All of these things had not only specific areas, like the old phrenologists that just used to draw on people's heads, but they had very specific areas in which to be pursued. You could have religion and education and living all in one zone in the city, but you could not add to that work, and you could not add to that such recreation as a saloon, and sometimes not even stores.

Blum: How did you get around the regulations that existed at the time?

Goldberg: Getting around the regulations was perhaps not the exact word. Changing the regulations was perhaps more effective.

Blum: How did that change?

Goldberg: In the first instance, here in Chicago we had a perfectly wonderful person by the name of Ira Bach who was head of planning. Ira was not only a competent scholar of planning, but he was also an effective planner, assuming that planners look toward the future. Ira was very sympathetic with the idea that I was proposing. Ira and I saw fit to create a district, which required a minimum area of land. We complied with that minimum area, and we were away and running so far as the planning board was concerned. People were not accustomed to the idea of mixed use, and there was no opposition to it, and so away we went. Now mixed use has become a standard component of the central city areas. I originated that phrase "a city within a city" in the billboard that we had there. That was the first time we used that.

Blum: By district do you mean that part of it was designated for residential, part for business, part for recreation? Do I understand "district" correctly?

Goldberg: Zone is perhaps another term for it.

Blum: But this was the idea behind it, so it could encompass all of these various

functions?

Goldberg: Exactly, yes. But we bumped into another barrier with the financing. I think I referred earlier to the opposition we had from the Federal Housing Authority. The financing was made possible only by the existence of the Federal Housing Authority insurance program for mortgages. Those regulations were limited to creating housing for family living with children of sandbox age. It was a suburban picture of children and families, but the idea of urban families was something that was a new concept for the Department of Labor as well as for the Department of Housing. That we managed to get changed through Bill McFetridge's influence with the Department of Labor. We managed to be heard and they changed the regulations after some persuasive statistics that I managed to dig up on the change in family composition. We have changed our concepts which form the city compositions of most American cities, as I say, and which still prevail in smaller, what we call country towns or more middle-class, stratified towns.

Blum: Was the issue of integration embodied in the initial concept of who could rent in Marina City? Where was that in all of this?

Goldberg: That was implied. I think that Bill McFetridge was not only a skillful labor leader, but his labor experience gave him, I think, a very realistic attitude to what might be called racial mixes. I think from Bill McFetridge's viewpoint it was impossible at that time to have a rate of mixture which tenants would find unacceptable. However, the need for ethnic mixes was without question part of his conceptualization.

Blum: Did I understand what you said, that he was realistic enough to know that it wouldn't work?

Goldberg: He was realistic to know enough that it would not work beyond a certain rate. Now, there is another mixture of tenancy that you have not mentioned,

which has to do with economic mixes. Very few people ever think about economic mixes if they don't have to. If you pay enough rent, people who are not of your economic background don't bother you. They don't get entrance to the building in which you're living. But we had exactly the converse here. We had rents that were so low that people of almost any reasonable income level in the downtown area could afford to live at Marina City. What fascinated me was that we had at least a dozen people out of the 900 families that moved into Marina City who had at that time incomes exceeding $100,000 a year, which was a very sizable income in those years. What fascinated me was that they would move into Marina City. The reason they moved in was because of convenience as well as the extraordinary experience of living in a building that was designed as Marina City was designed, and it attracted them. They couldn't replicate that living any other place. So, they moved in and lived cheek by jowl with people that were making $7,000 or $8,000 a year. I don't know how happily they were living there, but lots and lots of people have said to me, "Oh, I used to live in Marina City," or, "I lived in Marina City for many years."

Blum: Initially this was a rental building. Who was the rental agent?

Goldberg: It was Charles Swibel's brother.

Blum: Was he the gatekeeper of the building in terms of integration or the economic mix that you speak about?

Goldberg: I don't think there was any deliberate gatekeeping on economic mix, except to find the people who could afford to live in the building. It was very seldom that you found somebody who couldn't afford to live in the building. I would say also that he was the gatekeeper for the integration of race and color, without question, but I think that's a matter of tradition. He followed instructions that he got from Bill McFetridge.

Blum: Were there black families living in the building initially?

Goldberg: I believe so.

Blum: You know, you really were a pioneer with Marina City when one thinks about how important the Chicago River has become today. No one had paid much attention to the river up until that time. What was your thinking about the riverside?

Goldberg: I'm sure that no one invested that kind of money or attention to the river, although I'm equally sure that people were sort of aware of it. Leon Mandel, for example, used to tie his boat up at the Michigan Avenue bridge for the winter season and he used to live there—very economically, I might add. The river was a perfectly apparent asset to living. We had a broad expanse uncluttered by other buildings, at least for buildings facing the river. The round buildings provided a much broader camera view of the riverscape. It was perfectly natural to take advantage of that. But I think that the river as a scenic device for relieving the humdrum of urban density had not been recognized, and it still hasn't been adequately recognized.

[Tape 7: Side 2]

Goldberg: We have many exciting plans for riverfront development—widening the river, for example, which we did at River City. We dug out the land to let the river expand. We doubled the width of the river at the development of River City, and we have ideas of creating islands around the riverbank and developing the point at which the earth and the water meet. I think it could be quite handsome.

Blum: I think up until the time of Marina City, Lake Michigan had been considered our scenic wonder and the river was like our back door. No one paid any attention but you created an awareness.

Goldberg: Not adequate, because when I tried to suggest to Tom Ayers at the time they

were proposing the 1993 World's Fair that we create a floating fair that would extend from the lake back into Chinatown on the south and Goose Island on the north. He found it attractive but not persuasive. People still don't understand the wedding of earth and water. There is a recent issue of a Japanese publication called *Process,* an architectural publication on marine architecture, and they published both Marina City and River City with great enthusiasm. I wrote some things for that issue of the magazine having to do with the design of buildings that marry with water. I came to a few conclusions about it, which reminded me of how little we still understand about this.

Blum: Is there a big difference in your mind between a building which you can put on a riverside or a building you put on land with no water around it?

Goldberg: Most buildings don't recognize that difference. But an architect who fails to recognize that and who fails to design for that is losing an enormous opportunity of message and significance and enhancement of the spaces that he is creating for the use of people.

Blum: Couldn't Marina City have been on Lake Shore Drive, for example, because the lake is on the other side of the street. Could it have been here, several blocks away from water?

Goldberg: Of course it could have done any one of those things. I think what you are asking is, is Marina City exclusively designated for a waterfront site?

Blum: Yes. Are there special features about Marina City because of its waterfront site?

Goldberg: Well, of course there are special features—the foundation system, the system of columns and the revelation of the core structure as it comes down to earth and penetrates the parking levels and promises that there is something more happening down beneath; the ability to stand on the other side of the river

and see the actual fingers of Marina City or feet of Marina City, if you will, penetrating the concrete and finally penetrating the earth and going down to meet the water or meet something down below. All of that is very carefully studied and revealed at Marina City. You wouldn't have seen those if Marina City had simply come down to earth and stopped. Now, some of the same principle was done at Astor Tower. Astor Tower was designed before Marina City, by the way. At the time we designed Astor Tower we studied a circular building for the location of Astor Tower and discarded it because I felt as if it was out of context, as some of the architects would say. The environment was a rectilinear environment around Astor Tower, and we couldn't create enough of a message to let it stand on its own.

Blum: You used Alfred Caldwell for Marina City's landscape architecture. Why Alfred?

Goldberg: In the first place, I admire him and I admire his work. In the second place, I think Alfred is a kind of urban romantic when it comes to urban landscaping, and I felt as if the brutality of the mass of Marina City deserved some of his romantic approach. If you recall, I think it was Alvar Aalto who designed Baker House dormitory at MIT in 1946, and he designed a steel tree that he "planted" there. That, to me, was what I wanted to avoid. I mean anybody who designs a steel tree is in trouble, I think. I felt that however attractive it might have been for some art critics, over a period of time it deserved a different interpretation. If you're going to design a tree, that action has other messages.

Blum: What was Alfred like to work with?

Goldberg: Wonderful. We had a good time together. He had lots of stimulating ideas, some of which we couldn't accomplish, some of which we tried and failed. For example, in a little garden that we had in the center, between the towers, we contained the earth with a curb. Alfred wanted the earth to spill over the curb onto the automobile terrace. We did that, but it did exactly what you

might think—the plaza got muddy; the earth couldn't be contained without a concrete curb. In the first month or two it was wonderful, but...

Blum: What was the idea, just making the edge less distinct?

Goldberg: It's like the wedding between earth and water. This was a wedding between earth and concrete, and he wanted to make it less of a designed pattern. He wanted an absence of pattern of development; I loved the idea. We followed his designs with some stones and some rocks, and even those over the years have been gathered up and put back in their place—where other people thought they ought to go.

Blum: Marina City, of course, brought so many firsts, maybe not into our vocabulary, but certainly to our attention. I think underlying what was happening at the time was a need to, as you said, make city living attractive enough so that perhaps the flight to the suburbs didn't seem quite so attractive and necessary. Do you think Marina City made a dent in that larger problem of the flight to the suburbs?

Goldberg: Unquestionably it has made a dent, but the issue is how large a dent. I think what Marina City did, very much as Raymond Hilliard did in another way, was to put an end to the generalizations that pervaded our thinking at that time. Everybody thought, for example, that the city was not a fit place for people to live. Everybody also thought the high-rise building was an unfit place for people to live in as recently as 1983. Edward Levi's brother Julian, who worked at the University of Chicago as their planner, testified that he would block my planning for River City, not because it was too big a building, but simply because you couldn't raise children in high-rise buildings. His position in that statement came out in a hearing in 1983. Now, Marina City had been in existence for twenty years, but various people still felt as if a high-rise building produces crime, is an unpleasant place for people to live, is undesirable for a city, etc., etc. We put to bed a generalization that high-rise buildings produce crime. Raymond Hilliard is

the only public housing in the city of Chicago that has never required uniformed police to keep order. This, I think, is simply because the architecture gave a message that we were building a community, we respected a humanism which that community wanted or deserved, and we simply weren't storing people, which has been the general message of unsuccessful public housing. Before we leave Marina City I want to make another observation—not because I want any kind of prizes or admiration for it, but because there are many things in Marina City which still have not been made available in general for urban living. No one sees a smokestack at Marina City. There aren't any. We came to a decision—and it was a purposeful decision—that it was certainly impolite if not inappropriate in a crowded city to set up these tiny little conversion plants for fossil fuels to give people heat, hot water and things of this sort—things that should be done with a remote conversion, namely through generation of electricity at some remote plant. The city air should not be polluted with all these little power plants. Now, in the last thirty years of trying to clean up the environment, everybody points to the pollution caused by the automobile. No one points to the pollution caused by all of these little buildings, including the one you're sitting in right now. The fact that electricity has gotten to be unbelievably expensive could conceivably have been countered by using more electricity. That would have been one way of doing it. Of course, there are other ways of creating electricity that may be less expensive. But getting away from the economics of electricity for a moment, because it's nothing that we can settle in this kind of conversation. The fact remains that Marina City is certainly one of the few major buildings in Chicago—and I don't believe there are more than ten—that does not convert fossil fuels to smoke and contamination of our surroundings. There are other things that we did. The office building of Marina City, for example, converts light to heat.

Blum: You know, that was a statement that I had to read several times before I really understood the idea. Would you explain it in your own words?

Goldberg: That came about through another study that we made on how to make office buildings habitable for people. It occurred to me that the fatigue factor in office buildings is never recognized. What we recognize is the cost of how much light we are going to use in our offices because of the economics of using that much light. But the fact that we need probably six or ten times as much light in our office buildings to avoid the fatigue that comes at midday or in the afternoon in an office environment has not been recognized. If we provide enough light, then can it do other things with beyond illumination? So we started by creating an office environment which provides 250 footcandles of light at desk level of non-glare light.

Blum: What is the ordinary level in any other office building?

Goldberg: About thirty to forty footcandles, a huge difference. I had studied light in my own drafting offices for many years. We were, I think, the first if not the only office in town to have polarized light for our drafting area to avoid glare. Then I made a study to see what other innovations of lighting had been made that might be useful. The actual introduction of light in the sense of health, in the sense of well-being, has been investigated to a great extent but is not well publicized and not well understood. The reason you feel better when you're out walking, for example, is because you have somewhere between 2,000 and 4,000 footcandles of light out there in many instances, certainly on a bright, sunny day. The body uses this light in very direct ways. The endocrine system uses it quite directly. We used that bright level of light in our office building. We don't have a great, big, centralized boiler room or engine room at Marina City, which is another decision from our study and innovation. We said that people ought to be free to govern their own environment and not have it imposed upon them. That means that if you want hot water 110 to 115 degrees, you should be able to control those temperatures. I'll explain in a moment why we thought so. Similarly, some people like to have air conditioning on April 22 and some people like never to have it, and some people like to have their heating regulated in the same way as they see fit. Now, that is a totally different approach to the centralized control of your

environment. In short, you are not being regulated, governed or administered by some remote management system. This I employed with the idea that it would introduce what we call a feeling of home ownership—home control within the rental apartment. A technical result of that theory is that we avoided use of major horsepower motors at Marina City. "Major horsepower motors" is not a customary phrase, because you put in what horsepower you need to do certain things, but it is a signal that the cost of occupancy for thirty to forty years will pay for those motors before a newer and more efficient motor can be used. Part of American industrial philosophy has to do with new developments, with throwing things out, with turning things over, with trading in our automobiles, trading in our television sets, trading in our air conditioning equipment. We call this a sign of a consumer society, but it is something more than that. It represents an attitude that an idea has its own time for use. You exploit that idea, but then you extrapolate that idea into new ideas, and you take on the new idea and throw away the old one. But when you have buildings that have these major horsepower motors, as I call them, you have to use that system until its value-engineered life has come to an end—until their cost has been amortized and depreciated from your capital expenditure. Marina City doesn't have major horsepower motors. Marina City doesn't have a single major piece of equipment, except electrical transformers and elevators. It has small units of power throughout. Every apartment has its own air conditioning unit, its own heating unit, its own hot water unit. We only serve the apartments with cold water and electricity.

Blum: Was that new in large buildings at the time?

Goldberg: Totally. It still is new. It's been in existence there for thirty years, but it's use is still new.

Blum: Was that a decision based on economics or a decision based on letting people control their environments?

Goldberg: It was a decision based on both. It was based, first, on the fact that I believed that people ought to be able to control their environment. Secondly, it is based on the fact that on the economic studies that it is cheaper to install these units locally within the apartment than it is to install a central system with big pipes that have to be administered and maintained and valved and corrected and repaired. At Marina City we took the attitude that if it ain't broken we didn't fix it, but if it was broken we replaced it.

Blum: Isn't that the consumer society idea?

Goldberg: Of course. It's a consumer's idea on its own. You don't fix anything, you throw it away, because that really is the way our society is built—whether it's automobiles or small air conditioners or small water heaters or room heaters or pots with their own heating equipment in them—you don't even have to have a stove anymore—a little machine toasts bread and broils steaks and makes grilled sandwiches. There's a whole way of cooking and maintaining a food preparation center that wouldn't have anything in it except a sink and an icemaker, in all likelihood. But even the refrigeration for the preservation of food is something that is almost unique in this country. If you live in Europe, for example, you buy your food on a daily basis.

Blum: I am really impressed with the kind of research you must have done to design a building like this. You really did your homework.

Goldberg: More than that it was a technological statement that has, to some extent, been overwhelmed by the design of the building. People look at the design and fail to understand many of the other things that went into it. But there are many things that went into it that were intended to provide a more effective way of combining technology with living.

Blum: Was that a project for which you consulted Edward Hall?

Goldberg: No, I didn't consult with Edward Hall until after Marina City was built.

Blum: So much of Marina City looks so contemporary today, as if it could have been built yesterday for tomorrow, and yet it's thirty years old.

Goldberg: I hear your statement and I understand where it's coming from, but it's the kind of valuation of style that depresses me because Marina City was never a contemporary style of building in my mind. It was a development, a technological wringing out and aesthetic wringing out of a concept which had a considerable amount of reason for its existence. When you say "it looks like," it strikes me that that is not a reflection on Marina City's foresightedness but rather a reflection on the lack of development around us.

Blum: Well, I suppose that's right. In your opinion, in terms of features of design or function of the building, what were some of the surprises? Were there any surprises, either pleasant or unpleasant?

Goldberg: The most pleasant surprise was that it was instantly occupied. We were scared to death, as I have previously indicated, that people would be inhibited from occupying it because of its unusual room shapes, that furniture wouldn't work, that people basically are afraid of what is new. There was no sign of that, no sign ever. Quite the contrary. Because it was new, and pleasantly new, they accepted it, and also, to be realistic about it, because it was economically attractive. But had it been economically attractive and aesthetically or functionally undesirable, it would have failed. People will not spend their money for what doesn't work. They will take what works and love it if, in addition, it's less expensive. That they created instant community was very rewarding. That was a pleasant surprise. What was an unpleasant surprise was the fact that the areas where we thought we had so much to offer were totally ignored. That had to do with, let us say, the office building, for the sake of discussion. The office building had a great deal that was unrecognized. People did not understand the freedom that the mechanical installation gave them at the office building. For example, if you want to stay after five o'clock in the afternoon in your office in a major

downtown building, the major buildings have to turn on one of those major electrical motors and run a 250-horsepower motor in order to have that one man work with an air-conditioned environment in his office. At Marina City every floor is divided into thirteen zones, every office of over 1,000 square feet with the use of a five-horsepower motor creates its own environment, much as you do in the apartments. The little five-horsepower motor keeps each office cool at twelve o'clock at night or at six in the morning or whenever. The fact that this amount of light that we provided reduced fatigue in the afternoon performance of labor, but people don't value that luxury.

Blum: Did they complain that it was too bright?

Goldberg: No, they never complained that it was too bright, and it isn't too bright. It's just that it's not a component built into daily living. People can work with one-eighth of the amount of light and so they do. But the fact that people work less effectively or at the end of the day are exhausted—eye strain and fatigue—those things mean less to management of office work. The fact that the theater building had so much difficulty in becoming a reality also was an unpleasant surprise. Here we are, looking for a suitable house for the Goodman Theatre, and a theater building exists at Marina City that will seat 1,400 or 1,500 people. You can have two more theaters—a rehearsal theater and a small theater for more intimate productions—all in one building, and it's empty.

Blum: Was the office building fully rented?

Goldberg: At one time I think it was fully rented.

Blum: Did you have the idea that people who lived in the residential towers might also work in the office building?

Goldberg: Without question.

Blum: Did that happen?

Goldberg: Very seldom.

Blum: Before we leave Marina City, one last question. You had a marina there, of course—hence the name Marina City. Did you have a personal interest in boats and sailing or yachting?

Goldberg: I had been a sailor, and at the time we designed Marina City I had a boat—a powerboat. So I was familiar with it. I was familiar with how the river could be used.

Blum: Do you think that had any obvious or subtle influence on your thinking that the location would be a wonderful site for this development?

Goldberg: I don't know. What is a creative person? Somebody who uses most of his life experiences. I mean, I lived. If it includes boats, that's fine. Certainly I was more sensitive to boats. If I had been a painter, would I have had nothing but studios in there? I doubt it. Certainly my enthusiasm for living makes me more sensitized to other people's desires and potentials for enjoying things. I'm not an actor, and I built a theater.

Blum: Marina City has undergone several changes. They were in ownership and now condominiums, and other changes have been proposed for the building and its environment. How do you feel about any of those?

Goldberg: You asked about mistakes. The condominiumizing of Marina City, which I had nothing to do with and which made a lot of money for a lot of insiders, unquestionably wrecked the economic structure and the management structure of Marina City. I was not nearly so aware of that at the time it was condominiumized as I should have been. I'm not sure it could have been stopped—there was too much money to be made—but it could have been

protected in ways in which it has not been protected. What I am referring to is the fact that when I planned for the mixed use at Marina City, it was quite apparent to me, as it was quite apparent to Bill McFetridge, that the management of these varied interests—the theater, the restaurants, the offices, the parking, the retail, the recreational, the boating and, of course, the apartments—all were bound up and depended upon each other for a successful living cheek by jowl. When the apartments were sold to individual owners, another group suddenly emerged which controlled the physical environment that would interfere with living in the apartments. What I am saying is that the apartment owners did not own the access to their building, did not own the housekeeping of the entrance to the building, did not own the safety features, did not own any portion of anything else. They didn't own the parking, they didn't own the office building.

Blum: They didn't own the common areas?

Goldberg: We called them the common areas, but the whole thing is a common area. Everybody shares something of somebody else's use.

Blum: Who owned that? The management?

Goldberg: No, at that time it was divided. The ownership of the apartments was sold, and a second ownership was created for everything else. The "everything else" was owned by a very special group of insiders. Those insiders then sold off portions of this, and the people to whom they sold only had the interest of making money on their investment. When the owners of everything else went bankrupt, their successors wanted to do things that were detrimental to the apartment owners—certainly in my opinion, and certainly in the opinion of people around them.

Blum: Were you ever called in as a consultant?

Goldberg: By some people who wanted to take over and develop what was left in the

bankruptcy. But to the frontrunners for the takeover, the life of the apartments was unimportant. The rescue of the bankruptcy was proposed in shocking ways—certainly without intelligence. It was even stupid when viewed as a rescue. It was totally unsympathetic to the needs of the 896 apartment owners, unsympathetic to the city and it was certainly unsympathetic to the aesthetics of the building.

Blum: What did they propose to do that was so disagreeable?

Goldberg: They wanted, for example, to expand the retail space above grade where it would interfere with the entrance to the whole project and where aesthetically it would have destroyed the towers. They had planned to install little warts of new buildings of 25,000 square feet of retail space. In order to build this addition, they planned to destroy the theater building—actually destroy it. Unrented retail space already exists that they have not rented. No thought was given to how to bring people there. Bring them there with theater, bring them there with three theaters and movie houses and little conventions—mini-conventions and things of that sort. That didn't occur to them. Their idea was you could bring people there with tobacco stores or Gap clothes or something that people don't come to Marina City to buy. The Merchandise Mart installed new and extensive renovation for retail that has not attracted people. The Mart has failed as a shopping mall, except for the people in the building. That's the same experience they proposed for Marina City. Marina City has failed to develop the theatres, which we had designed to bring people—tourists—into the building.

[Tape 8: Side 1]

Goldberg: The Chicago Planning Commission has very generously made it now a part of the original ordinance that any renovation there has to at least consult with us.

Blum: So those proposals are done.

Goldberg: That proposal is finished. This, as I say, is an area where we have been disappointed—in the commercial exploitation of Marina City; in the office exploitation of Marina City.

Blum: Are the homeowners any better off, any worse off, in a neutral position? Where are they today now that they own their apartments and do not rent them?

Goldberg: They are worse off. What condominiumizing Marina City did was to take a building which had been constructed very economically—ten dollars a square foot is what it cost to build the towers at Marina City—they took a building which had been built very economically, which had proven its market acceptability, and they sold it off for a new capital level which yielded a very substantial profit for the developers. What happened was, then, that that new capital level, that new capital cost, has to be amortized and paid for by the people who lived in the building at a much higher level than it originally was renting for. Taxes, therefore, went up because the building now had a newly created value, and tax is based on value. The management of the building has been substantially impaired by the failure to have an understanding office management. The office building was technologically a very advanced building, but it was not a building that was super-elegant in finishes. We had no marble in it, we had limited stainless steel in it. It was a building that was at that time meant to open up a new area with attractive new rates for rents. That has been grossly misused and mishandled in almost every way. They sold the office building for the same price that we built the apartment towers.

Blum: You called this a mistake. Is it something that you could have avoided? Did you learn from this and plan differently for River City and expect to avoid this kind of problem?

Goldberg: Without question, it can be avoided. Don't forget that Marina City was built

for a trade union. It was built with a certain amount of unstated but nevertheless existent idealism. The union had big pension funds. At that time they were making 4 percent on their investment in government bonds in their pension funds. The building did not have to earn anything more than 4 percent in order to equal what they had previously invested in it and what was available to them as security. So had the union remained in ownership, the union commitment, at least, would have been ameliorated by the fact that the profits to the union were, in a sense, self-limited. They were not taxed. They paid real estate tax, they paid property tax, but they paid no income tax, except as income taxes apply to pension funds. But that isn't what happened. The corruption within the union made it possible for private individuals—the insiders—to come in and buy the project from the union.

Blum: So they were the people you talked about but did not name?

Goldberg: Right. And then, in turn, wanting to make as much money as they possibly could over this good thing—which they had—they, in turn, sold the apartments to individual owners as a condominium. They sold the office building to some absentee group down in Texas who thought that they could pay a very substantial sum of money for it because what they could do would be to raise the rents.

Blum: Has that been a successful venture for them?

Goldberg: They went bankrupt as a real estate group, and the bank which held the mortgage on it went bankrupt as a mortgage group, and so now there are two bankruptcies in the way of rescuing that building.

Blum: Do you feel that reflects on you?

Goldberg: Partially. Somehow I should have been able to foresee the possible manipulation. We had an absolutely clear field at the beginning in which to almost do anything we wanted in terms of writing up the protective issues,

economically, that could have stalled this kind of manipulation. Everybody wanted to do something new and was sympathetic to these ideas.

Blum: You needed a crystal ball to foresee this.

Goldberg: No, you needed more sophistication than I had in 1960. I wouldn't do the same thing now. Although I stubbed my toe comparably at River City. I tried to protect what I had failed to protect at Marina City, but there were new things that I had failed to see at River City.

Blum: If it's any consolation, the American Institute of Architects awarded Marina City the twenty-five-year distinguished building award.

Goldberg: I hate to make observation that they didn't understand it for twenty-five years.

Blum: Is that the first award that that building has received?

Goldberg: No.

Blum: So someone understood it a little earlier.

Goldberg: Yes, they understood it much earlier in New York when the Architects' League of New York gave it a silver medal. Saarinen and I both got silver medals that year from the New York Architects' League.

Blum: Do you view the twenty-five-year award with mixed feelings?

Goldberg: Yes.

Blum: Let me speak for myself. I think what it says to the public is that it's a building with as much to offer today as it did when it was built.

Goldberg: Well, I am grateful to you for your comment. Without question I am grateful, but as I say, I wasn't looking for prizes twenty-five years ago. Actually it was thirty years ago. It took them thirty years to give it a twenty-five-year award. I'm not looking for the prizes of twenty-five years ago, but twenty-five years ago there were many architects who ridiculed its shape, who ridiculed its form. On the other hand, there were several architects—Carl Koch of Boston—who felt as if it was the announcement of a new architecture, and so stated. We are in exactly the same condition, architecturally, now that I suppose we were twenty-five to thirty years ago. We don't understand what we are doing to ourselves. At least our failure to understand what we were doing to ourselves twenty-five years ago was marked by an adoption and enthusiasm for Miesian architecture. At least the architects twenty-five years ago had quite blindly adopted Mies's cubism. They didn't make a mistake then, but they made an error in taking it on as a style. They made a style of Mies, and today they are making a style of someone else. Tomorrow they will make a style of somebody else. Architecture is not a style. It's fine for the critics to come along and slap a handle on what has been produced and carry it away to their lecture halls, but the fact that architecture is a yeasty, living development of a social statement by those people who are skilled and trained to develop those social statements appears to too few people, too few architects.

Blum: It's always been said that artists are fifty years ahead of their time. The other side of that is that the public is fifty years behind their time. So maybe this is the kind of thing you're talking about.

Goldberg: We have a public statement that exists today. In some ways it is a deplorable statement because we know what we need. We know what we are lacking. We know what is absent. We know what we can contribute. There isn't anything that we can't contribute to these needs if we had the courage, first of all, to examine them carefully and translate them into architecture. But we don't do this. Architecture isn't a style. There is no understanding that it has a relationship to our society. There is no sense of responsibility that we have

to understand our society in order to make these statements. We aren't painting pictures. We aren't stylish exploiters of magazine-generated pictures of some kind of acceptable vision of space. We have a skill, a responsibility, a dedication, if you will, to a form of creativity that is so fundamental in living that it can't be described as a style.

Blum: Soon after Marina City you did the Raymond Hilliard Homes, to which you've referred several times. In talking about the Raymond Hilliard—do you call them "Homes" or "Center"? They've been referred to both ways.

Goldberg: I think "Houses."

Blum: Let me quote you. "I hope that the people who will live in these units will not feel that because they are poor they are being punished." That was such a prevalent idea and feeling, probably, among the poor and those of us who are fortunate enough not to be. How did you seek to counter that pervasive idea in the buildings you designed and built?

Goldberg: That was best expressed for me early on at a birthday party that I gave during the construction process out at Raymond Hilliard. I had about fifty of my friends come and celebrate whatever birthday it was. I think it was my fiftieth birthday. And one of them said to me, "Why can't you build this for us?" The issue here was that I had again explored a way of living and achieved it very economically and with very little fuss and feathers. It was a simple statement of a way to live simply, but it was a statement that permitted the development within the family unit of several or many ways of life that belonged to them. It was not an imposed pattern. There was a great deal of freedom in the arrangement of living patterns. There was a great deal of respect for the individual and for his way of life and for the way he or she wanted to raise a family. There was no imposition of a solution made by boxes.

Blum: How did you have any insight into how poor people live? How did you

understand that?

Goldberg: It was very simple. I thought of them as people, and the word "poor" was not the operative word. I didn't design for the poor, I designed for people. The fact that the poor required a simplicity was without question, but the fact that they were people was paramount.

Blum: In these houses, you separated the elderly from the families, and the buildings were designed differently. Two questions. Why were they separated, and why were the buildings different?

Goldberg: The family living, almost as a given, included children, unlike Marina City, and they are rather prolific children-bearing groups. The specialization of providing for families with children is not necessarily applicable to providing for the requirements of families or single individuals who no longer are childbearing and don't have the same problems. They have other problems. They have the problems of waking up in the morning and making sure that they can get out of bed, or that if they can't get out of bed that somebody knows about it and will help them get out of bed. They have a community relationship that is bonded by the fact that they need each other or they need help from somebody else. Now, they need various kinds of help. They need help that comes from sharing, and they need help that comes from physical proximity. The family living, on the contrary, needed celebration of the family unit and protection of the family unit against the imposition of a governmental regulatory pattern. Now, in the housing for the elderly we used, again, that circular pattern leading toward or from a center, depending on the way you wanted to see it, but it had no structural core. The core was a community room to which, really, all the apartments fed, so that they could see each other and they could share. If one had a television set that he wanted to share with the others or books or if the building itself bought a television set, there were, I think, twenty units which could share the use of that or share the library or share social services or share whatever had to do with that little community. And then we, in addition to that, made the laundry

room into a party room into a roof terrace where they could all come together from the various floors and use that space. Now that wasn't true with the family organization—with the family types. The family types needed a place for the children to play, where they could be supervised right in front of their kitchen window, just as much as they wanted to have a playground where they could be more removed and leave the scene for supervision under appropriate circumstances. But the women—the maternal society which those family groups had—had a place where they could meet and, again, it was their laundry room.

Blum: I suppose it's evident, after what you've just said about the needs of these two separate groups, why your buildings took the forms they did. Would you comment?

Goldberg: Certainly the housing for the elderly had a very direct response to the way in which the internal community was organized. I failed to mention earlier that the elderly people were concerned about waking up in the morning. It's a strange thing to be so impoverished and so needing of medical care that when you go to bed at night you question whether you have the resources to wake up in the morning—both physical resources as well as the energy resources. But one of the concerns in these little community formations was whether everybody reported, as it were, to being alive in the morning. Perhaps that's a little too dramatic. Perhaps it only had to do with being healthy enough to get up, get dressed and get out. So, there used to be on each floor a kind of checking system where everyone saw to it that his neighbor was well, alive and responsive to getting up again today.

Blum: Was the check-in system something that you designed? Was it a mechanical thing on the wall or something more personalized?

Goldberg: No. It was just one neighbor checking on another. If they didn't see a familiar face, they would rap at a door and see if there was some way in which they could be helpful. I think you can sense that this building almost recollects the

community life around a campfire, for the sake of discussion. Everybody looked after everybody else, and the circular form of those buildings was a direct response to that kind of neighborhood. Although the buildings looked circular, the little modules for the bedrooms and the modules for the combined living room-dining-kitchen facility were quite different in size, and the building has a texture as a result of the movement of the walls. The elderly housing was really a kind of development of Marina City. At Marina City all of the modules, which are components of perhaps what I reluctantly call a circle, were quite regular. They were sixteen repetitions of the same module. At Raymond Hilliard in the floor plan of the senior housing we had ten bedroom modules alternating with ten living room modules, and they were two different size modules. So by the time we designed Raymond Hilliard, which was some three or four years later after we had designed Marina City, we were sufficiently confident with our ability to have flexible forms and to successfully combine them together. Now, this is quite different from the regularity of the rectangular or rectilinear system, which are the post-and-beam structures that have a very precise repetition of a dimension throughout the floor. The bays are quite regular throughout the floor. The senior housing was regular in its irregularity.

Blum: Let me play devil's advocate for a moment, because as you were saying that, it came to mind that after the Second World War flexible floor plans were offered by architects for residential housing. I suppose what I understood by that was that there were fewer walls and that you could arrange an interior in any way you wanted, which, if there weren't walls separating rooms, you could always change. So maybe that was the way in which a rectangular floor plan was able to be somewhat flexible. But I understand your flexibility was in the structure itself.

Goldberg: Ours was in the structure itself, and perhaps didn't have the flexibility which you are describing, which is a kind of inheritance from the Japanese screen system and, I think, proceeded through Frank Lloyd Wright and into Miesian housing. But one of the problems with that type of flexibility is, in the first

place, none of the partitions ever get changed. They contain pipes and wires that come out of the floor or ceiling structures, and it's quite difficult to change those things. It was a nice concept and, of course, they had the possibility of change in the actual planning. In the original planning they required no regularity, but they did require a kind of obedience to the location of the column systems. I am not referring here to that kind of obedience. I am referring, really, to structural obedience, as you point out. In the family housing we were even more flexible because in the family housing, which are those two arch-shaped buildings, we designed those very much like the Southwest Indians designed buildings and designed their housing. In the first place, we had limits of area for each room that were, in a sense, regulated by the Congress in Washington. They said that bedrooms could not be greater than a certain size, living rooms could not be greater than a certain size, and so it went. But the shape of the rooms was not regulated. We laid out the function of those rooms, and then simply drew lines around those functional plans. The Southwest Indians used to measure their grain storage and measure how much room they needed to either cook it or sleep alongside of it, and they would build their walls around their functional maneuvers. We did exactly the same thing, and those functional walls became the structure of the building. It resulted in, certainly, a different shape from the rectilinear systems—a more biological shape, perhaps—and it allowed within the original concept more freedom. We were not bound by a specific dimension for each room or each size, so long as we put these things together so that they became a total form in the exterior of the building. We had an enormous amount of freedom.

Blum: This project was built in 1963. The idea of the forms of these buildings were still very new—radical, if you will. Maybe that's too strong a word after Marina City. How did you sell this to the financing powers? Was this an FHA or CHA [Chicago Housing Authority] project?

Goldberg: It was a CHA project, and it was governed by the public housing authority in Washington. I think it was called a public housing.

Blum: How readily did they accept your design?

Goldberg: They didn't. They accepted it very reluctantly. We struggled with them for a long time. They brought me to Washington to give me an education on how poor people lived. They showed me pictures of poor people in Texas, sitting around waiting to die, playing pool while waiting to die, or the women sitting with their hands folded in their laps, just breathing and listening to their heartbeats. This was, of course, precisely what we were trying to change. A woman who headed this division in Washington—her name was McCarthy—brought in some planners with a Central European background, and in one instance some planners from, I believe, the Denver area. The one from New York and who, I believe, came from Vienna, had assisted Corbusier in planning Chandigahr in India. These consultants were well checked out, but we simply disagreed on the role of the poor in our social system. They felt that the poor people in our social system were upwardly mobile and would eventually escape their almost imprisonment in an economic trap that they were in. I said that they had by this time proven, since the 1930s, that poor people remained largely poor, with very few exceptions, and that they were identified as being poor. Sociologically we treated them as if they couldn't maintain a life at the same time they were poor; I mean, that poverty restricted their lives and, of course, we were out to prove that. We were out to prove that poverty restricted their lives. The McCarthy lady with the slides was quite satisfied that there was no solution for giving them a more involved or a better developed family life with more security, more family identity, more family activity. Their comment to me, and I'm quoting now, was that our designs were "too good for the poor." Our designs would have been "better suited to a more artistic element of society, perhaps impoverished artists," but certainly not impoverished people without jobs.

Blum: How did you respond to that?

Goldberg: Well, I responded to it by fighting—intellectually, at least—by fighting with these concepts, and by spending my own money to make illustrations or to do investigations that would indicate that the impoverished element of society will, in all likelihood, in spite of the fact that they will more than likely remain impoverished, have a way of creating an interesting life for themselves. Certainly the ghettos, which we were destroying at that time, provided them with a more interesting life than the public housing that we had been building up to that time. The Robert Taylor Homes is a typical example, where people out of desperation begin to lead quite violent lives because they have no family or no emotional organization. We spent an awful lot of our own money and time trying to prove our position. Finally, I was told that we had to redesign it, and thereby hangs what for me was a very interesting story about our friend Charles Swibel who was at that time head of the Chicago Housing Authority. Now, Charles Swibel has been accused of many things, at various times, having to do with unrespectable ways of conducting one's life and having political influence of one sort or another in unrespectable ways. On this occasion, after I had been told that I would have to redesign this, I was also told that I would be compensated by being paid another fee. The question was then asked me, "Well, why are you complaining?" I was not only outraged by the whole process, but I was discouraged by the sense of values that we all had or were expected to have in taking care of the poor. I came home, and Nancy [Goldberg] and I were sitting very unquietly. I was having evening drinks, and out of desperation had more than a reasonable share of drinks. By ten o'clock or eleven o'clock that evening I was feeling very little pain and getting more outraged as the evening went on. Nancy and I were just talking about the system that was creating this, and I finally late at night called Charles Swibel at his home, and I said to him that I considered this to be the equivalence of book burning. I think we were all close enough to the German experience to understand what significance book burning had in terms of intellectual and moral importance in a social system, and that was the term I used. I went on furiously explaining what I thought of all of the people who were involved in this. Swibel's response to me was that if I felt that this was of such importance that

I would make these kinds of statements, he would again look into it the next day, and would I express these concerns the next day to other people, which I agreed to do. So, it was through Swibel's concern, which came out of a tradition of his own—he had been an immigrant here in this country, and I think he understood very clearly what my concerns were. He had failed to understand, really, what effect the political system was having on the lives of the same people, poor people, which he grew out of. And so the next day and the next few days were spent in re-exploring this, at the end of which time he said, "You will build this."

Blum: What connection did he have to the people in Washington?

Goldberg: He had the connection of power through the local political system which, in turn, controlled votes and had representatives in Washington and the usual channels of power and communication. But he singlehandedly, with this response to my own concerns, made it possible to continue this. Now, at that time I also have to stress the fact that it wasn't only the political people in Washington who, for me, misunderstood the position of the impoverished element of society, but it was the planners as well. There was a whole segment of planners, and there still is, which believes that high-rise in itself is an evil demonstration of planning and architecture, particularly for poor people.

[Tape 8: Side 2]

Goldberg: In the arguments of high-rise versus low-rise, of sprawl versus density, the social anthropologists do not always agree with the planners. Certainly I, as an architect, felt that the planners were reflecting not planning but lack of planning in their attitudes toward density versus sprawl. In the final analysis, it was sprawl that we had just bulldozed out of existence, and certainly it was the insecurity and the crime and the problems of sprawl—sprawl failed to provide the facilities that were required to lead a reasonable life if you didn't have the money to spend to protect yourself. On the other hand, we could

provide many more amenities in density which implied high-rise. Now, Raymond Hilliard was designed to provide those amenities, or at least some of them, and with that kind of planning provided a success in reducing crime and enhancing a way of life that people had responded to quite cheerfully and with a considerable amount of success.

Blum: Did I understand that at the time the civil rights groups were the groups that pressured the planners or the people in charge who decided on such projects, and it was in response to their protest to high-rise that apparently brought an end to the high-rise for the poor?

Goldberg: I'm not sure that it was that simple. My own studies have gone all the way back to the seventeenth century and eighteenth century where the development of ideas concerning the noble savage and the simplicity of having your feet in the dirt and the good things which came from farm life versus city life, or country versus urbanism. You had back in those days people such as Thomas Jefferson, for example, in the American tradition who commented on that kind of condition. You really have a group of planners who have failed to plan, who thought that the difference was very simply between high-rise and horizontal sprawl—that we had failed to plan adequately in our high-rise structures for the complexities of family life and for the complexities of juveniles and for the complexities of community relationships. It's without question that high-rise buildings fail if you don't include these elements. It's quite evident for me. What we had done almost subconsciously in Marina City but very consciously at Raymond Hilliard and subsequently in our various other structures is the difference between doing adequate planning and failure to provide adequate planning. That children can lead a very exciting and happy life in a high-rise building is demonstrated daily in the upper classes on Lake Shore Drive.

Blum: But isn't there a big difference?

Goldberg: A difference in income, but not in the fact that they're both people. The

problems with being poor are quite evident—you don't have money and you don't have things to amuse you. You don't have toys to play with, as the old joke goes, so you devise and invent ways of protecting your own peer group against this lack of facility, against recognition. You strive for recognition and you get it. You strive for it by gangs, you strive for it by wrecking elevators, you strive for it by all of the things that we're all familiar with. But there is a way of providing for creating community life and creating a way of expressing your existence.

Blum: Do you think Raymond Hilliard succeeded in doing what you say you built into the design for it to do?

Goldberg: I think Raymond Hilliard has, without question, demonstrated a move in that direction. There are just some very simple things. One, people are happy; two, people smile at me when I return to Raymond Hilliard, or did during the years I used to spend more time back there. They regarded me as part of their lives. And finally, crime disappeared at Raymond Hilliard; that is, the kind of crime that you've had right across the street at Robert Taylor Homes.

Blum: Is that true today?

Goldberg: Reasonably. They still have not had the benefit of our uniformed police force to keep order at Raymond Hilliard. They don't have the gangs at Raymond Hilliard that exact a toll from kids going to school as they cross the street. Did we do enough? No. We tried to do other things but were literally prevented from doing them by the public housing commission.

Blum: Were you prevented by financial constraints?

Goldberg: Conceivably it was financial in origin, but the scale of the financial aspects of it was not alone the thing that prevented it. For example, we provided an outdoor theater at Raymond Hilliard. It's still there. But has it been activated as a facility?

Blum: Have they used the theater?

Goldberg: On some occasions, yes. The free street theater has operated out there. But has the community itself created bands—I'm speaking about musical bands here; orchestras which would play in the out of doors? Was there lighting provided for this at nighttime when these people could have had events that would have drawn them together? The answer is no. Was there any kind of social service that would have encouraged these people to use these facilities, and do they themselves have enough training or enough background to know how to use them? The answer is, it's unlikely. Did we provide workshops for these kids or for the adults? The answer is no, although I tried to encourage contributions, which I succeeded in getting from the contractors who built the project. They offered to participate by leaving extra material—wood, lumber and things—that could help these people build furniture or do whatever they wanted to do. But I was denied the privilege of installing machinery. There would be no one there to supervise. There was no social organization there at that time to provide the opportunities that we tried to create. So, did it reach a degree of perfection? No, but it got part of the way there. We should have allowed more space for women, for example. The term "a maternal society" was a perfectly okay word and I understood its implications, but did I provide adequately for it, except for the rooftop party areas in the senior housing and the laundries in the family housing, where the women could find places to sit down and talk to each other and do planning and take care of their children? There was inadequate space for that.

Blum: Because this has proven over the years to be more successful than other public housing areas and projects, do you hold the hope that maybe the establishment that makes judgments on these kinds of projects will, in fact, see the merit of what you did and allow high-rise buildings to be built again for this segment of our society?

Goldberg: I think this matter has been taken into the law courts rather than into the planning groups. I think that there is too much antipathy to permit or to encourage this kind of housing, and I'm not at all sure that public housing should be celebrated by major structures in this fashion. Should the impoverished segment of our society be identified by special housing of this magnitude, or should we find other ways in which to absorb the poor people into our social structures?

Blum: Do I understand you to say that you're not sure these isolated concentrations are a good answer?

Goldberg: I don't think they're good answers, but I don't know of an alternative answer yet. I don't think we're brave enough to absorb these people into a more conventional surrounding. On the other hand, I don't know any answers for it because conventional people who have absorbed the famous 20 percent subsidized housing families around them have enormous resentments for that 20 percent. They are identified in that housing as much as they are identified in the public housing. The answer is clearly not to be found in either case. In the one case you identify those people by building a major structure or a major settlement, and you almost put a fence around it and say, "Don't enter and don't leave." In the other case you say to people who are taxpayers, "Here are the poor people. They live cheek by jowl next to you, and you help support them." I think the resentments there are perhaps of another type, but just as violent as they are when we set people aside and isolate them.

Blum: At Raymond Hilliard, how did the two groups—the families and the elderly—mesh? Did they come together and, if so, in what ways?

Goldberg: Your question is very interesting, because we tried to get the senior citizens, who have traditionally in many societies become the wise people of that society, to tutor, to teach, in a certain sense to administer the governance of that community. How did we achieve that? Well, we tried to put places

where they would come together, where they would meet. We have a community house there, for example, where the women both from the family groups as well as the senior groups can come together and paint or do sewing or make pottery. I personally contributed an oven there, a kiln, so that they could do their pottery work. They installed a television there, which I also contributed. I don't mean to get brownie points for that, I just want you to understand that architecture doesn't stop with walls. It needs a little more effort. To some extent, these people came together quite successfully in those areas. I regret that in the last five or ten years I have not maintained much contact there.

Blum: And did the elderly provide guidance for the younger people?

Goldberg: I have photographs of that taking place in the earlier days.

Blum: Does that continue today?

Goldberg: I would say it would be unavoidable, to a great extent. It has to continue because of the way we laid out the planning. They walk in the same walks and the facilities are shared by the same groups, and so they come together. But as I mentioned earlier, they have different interests. It would be the children, probably, who would come together with the older people.

Blum: When we spoke some time ago about the Drexel Garden Apartments you spoke about integration; how it was not possible in that project. How did it work here? Was it integrated?

Goldberg: We have several groups represented here where the integration was successful. The Chinese groups from the nearby Chinatown area, for example, moved into part of Raymond Hilliard at the beginning, and it was, I think, very successfully integrated because there was an effort made to invite these groups which had felt excluded or which excluded themselves from participation. Here was a different kind of architecture; here was a world of

the future, perhaps, to be more poetic about it. But the fact is that people of different color skins and different ethnic backgrounds and different cultural histories moved in and participated. I think the pressures then began to be exhibited, politically, for assigning some of those apartments to special groups, black families in particular.

Blum: Were there other groups?

Goldberg: I'm not sure what the Hispanic history there, for example, was. I was aware of the fact that the black groups wanted to have more representation.

Blum: Was there a plan—a percentage plan, perhaps—initially to integrate? Was that part of the concept?

Goldberg: I hope not. The history of percentage plans since the thirties, particularly in Germany, has, I think, made anyone who pondered social organization reluctant to use arithmetic to create social relationships.

Blum: I understand the connotations of quotas and things of this sort, but was this just open housing where anyone who applied and was considered a reasonably qualified tenant could move in? Was it just like that, regardless of whatever these other factors were?

Goldberg: I think that was perhaps the way the literature ran, but I suspect that there was some degree of selection—an implied balance. I think there was probably an effort made to control the social organization to some extent.

Blum: I don't remember the composition of that area in the sixties, which is when Raymond Hilliard was built, but was that an area where white families would seek to live?

Goldberg: Not normally, but white families did move in there, particularly in the senior housing.

Blum: So it was integrated initially. Do you know if it's still integrated?

Goldberg: I have not been back there in the last five years. I have no reports on that.

Blum: This is thirty years old. What about fifteen years ago? Was it still integrated?

Goldberg: Yes, yes, reasonably. I mean, there was evidence of integration, and I think that the integration by the Orientals was regarded at that time just as important as the integration of white and black. Integration takes effort, and that effort is not always available.

Blum: It also means control.

Goldberg: Integration means control—I agree with you. Integration just doesn't happen out of the goodness of our hearts. We're too well trained to hate each other.

Blum: Have you ever had an opportunity to build public housing after this where you could, perhaps, improve on some of the things that you criticize in this project?

Goldberg: No. I think the experience was a very enriching one for me, and I hope it was for the community, but the entire scene of building public housing is not an enticing one for repetition. For a period of two or three years it was not alone a question of design or a question of planning or a question of getting a project built, which is normal to almost any building, but it was a question really of contending with social forces that made themselves a part of architectural planning that are energy consuming and that can be overwhelming in their desires to participate.

Blum: It seems at the same time in the early sixties you were not only concentrating on housing for the poor, but also you were also concentrating on health facilities. And you designed the Menninger Foundation Clinic project, which

was not built. Was this the first health facility you designed?

Goldberg: No, I think we designed a health facility for the insane asylum out at Elgin.

Blum: Well, the dates that were published are 1964 for the Menninger Foundation and 1966 for the Elgin State Hospital.

Goldberg: They were relatively in the same period. The 1964 date with Karl Menninger arose after the Aspen Conference when Karl and I met. We enjoyed each other's company, and I started to work with his foundation out there. I think that was 1964. That may very easily have been the beginning. I just don't remember the sequence.

Blum: Was this an entirely new field for you to learn about, to discover the needs? For these various kinds of buildings that we've talked about, you seem to have done so much homework, such thorough research. Was this a new area to learn about for you?

Goldberg: It was a whole new area to learn about, and one that I was quite apprehensive about because basically wellness is what we celebrate in architecture. To provide for unwellness is much more difficult to adjust to. There is also a certain amount of ego-tripping in trying to pretend that one can make any contribution by architecture to certain arenas of public concern. So, there has to be a certain amount of self-examination when you begin to undertake these problem areas in architecture. This was, in direct response to your question, a new area. I don't mean to put the planning for Karl's community out in Topeka in the same role as the planning we did for Elgin.

Blum: What was the difference?

Goldberg: One is for psychiatric care and one is for biological care, or morbidity. The care for the Elgin group was really much more substantive in a way. There were people there who were mentally impaired, who needed surgery, and

how would one provide for them? So that was a much better defined problem for architectural planning than the one out in Topeka. In Topeka the role of architecture was much less well defined. Karl, for example, asked me, among other things, to provide a space that could be called a normal environment against which people's performance and behavior could be measured. I told him if he could provide me with a definition or a description for normal people, I could provide the normal architecture. This was a day-care center that Karl wanted me to design, and I found that it was an extremely interesting problem all of its own to understand what the psychiatrists out there, what the neurologists out there conceived of this being a day-care service. In a sense I had to find out as much about them as I did about the patients whom they anticipated to use that facility. We had a good time developing ideas, asking questions. They allowed me to put on a physician's gown and take on a physician's pseudonym to participate in talking to patients and find out how they went about this kind of investigation on a firsthand basis. I think one of the greatest things that has ever been said to me about my work came when we presented the design and one of the psychiatrists said to me, "I wish I was you."

Blum: Why?

Goldberg: Because the provision which we had made for their work was, they felt, so empathetic to their work, and I guess the physician was really envious of a profession where you could participate with other people through space instead of through words or physical care.

Blum: If I'm not mistaken, this design was for a serpentine building?

Goldberg: It wasn't precisely a serpentine building. In its totality, it was more like some sort of crustacean. It moves. You heard me refer to flexibility in structure, and these shell structures—which take various and different methods but nevertheless emerge as shells rather than posts and beams. These shell enclosures of space have an enormous potential for flexibility and purpose as

you move from one area to another, so that the form which this ultimately took was quite accidental. It was a result of the requests that we had had which were quite unapparent at the beginning of the project. At the beginning of the project what they thought they really wanted was simply rooms on a hillside where they could talk as we are talking here, and give some kind of specialized psychiatric attention or care to problems which did not require hospitalization. As they went on and as I asked them how they conducted this, it began to occur to them as well as to me that they needed special areas. They needed decompression areas, for example, for the psychiatrists who, after their fifty-minute hour congregated to either talk or relax or proceed with other activities. They needed places where patients could weep after their session or recover, as it were, from whatever they went through during their fifty-minute hours. One of the psychiatrists, who I suspect needed a little attention himself, said that he loved to look out on a cemetery and the tombstones that were just beyond his office as he was talking to his patients; that it gave him an understanding of his relationship to the patients that he wouldn't have otherwise. The possibility in that area of conducting psychiatric care outside of a room—was it necessary to even use a room; could a little garden be developed outside of each of these conference rooms, at least for a portion of the year? Where did people wait while they were waiting for their fifty-minute hours? What kind of apprehension did they have? What kind of tensions did they build up as they were waiting? All of these things were developed in these preliminary investigations.

Blum: Why wasn't that facility built?

Goldberg: It was not built because there was a palace revolution. The younger psychiatrists felt that Karl was being too dominant in his administration and in his methodology, and they wanted Karl out. Nothing happened until much more recently when I think Skidmore, Owings and Merrill designed a facility for a much later group out there.

Blum: In spite of the fact that this rather unique facility, for which you did a lot of

research, didn't get built, apparently it didn't go for naught because not only did you build the Elgin State Hospital, which you referred to and you said was a different kind of facility, but from 1968 on you have been involved in the Health Science Center at the State University of New York in Stony Brook. A commentator said that this design revolutionized hospital design in clustered, geocentric forms, pods. That, to me, somehow recalled the idea you expressed when you talked about Unishelter—the idea of just making the design out of these pods. In your design, how did you seek to improve health care with this revolutionary pod design?

Goldberg: You have used the word "pod" in the last thirty seconds a number of times.

Blum: I've used it because I've read it in reference to this project.

Goldberg: I'm not trying to put you on the defensive, I'm just interested in your use of the word "pod" because we also have been searching for a word which describes community spaces—communal spaces or spaces which support community relationships—and have not found a satisfactory word to this day.

Blum: And "pod" doesn't answer your needs?

Goldberg: A pod, as we all recognize, is an enclosure of seeds, generally speaking, or something growing, and to that extent it has a very pleasant connotation. But community life is meant to be not contained but to be sheltered and fostered by the creation of some sort of architectural space and is so much more intricate and so much more involved than a pod. Certainly a pod carries you beyond and provides much more activity. The word "cell," which is another biological description, and I suppose if you are a microbiologist you can conceive of many forms of life within a cell.

Blum: There's also a negative connotation to that word as well.

Goldberg: If you use it that way, maybe the capturing and the isolation that is involved in the word "cell" can be. But we are talking about a very important aspect of what I believe my architecture has, in its several phases, attempted to do. Certainly this is the subconscious effort on my part. I didn't sit down at any time and say I was going to design an architecture to accomplish either some kind of community purpose or social purpose or some kind of alternate activity for people to achieve. What I believe I have tried to translate into its many forms is the tendency of people to relate to each other. I don't think that the box or the rectilinear form of architecture, which has been so prevalent in the last portion of the nineteenth century and the early half of the twentieth century, was invented by the architects. I think that the architecture which I am describing, that the universalism which was being sought in so many areas of endeavor and creative activity in that period was a reflection of a denial at that time of the differences between people. It was a denial of human difference. You might also say it was a denial of humanism, because to say humanism is to say that we're made up of lots and lots of different components and different objectives and different reactions.

[Tape 9: Side 1]

Blum: I used the word "pod," and you went on to explain that you weren't completely satisfied with that word. There were other words that were used in reference to your Stony Brook and other buildings, and I think they were "villages" and "communities." Words aside, how do you think your plan for the Stony Brook Health Science Center better satisfied the needs of that center than, say, square buildings and their attempt to be universal. How did your design consider the needs of people more?

Goldberg: Before we get to Stony Brook, I have a little more to say about pods. It is true that we called pods many things. We called them, among others, petals, for example, in the Marina City design. I called them space bubbles also in a lecture I once gave in Germany in German, and I found that it was rather difficult to find a German word which corresponded to what space bubble

means, at least to me here in English. I suppose what I have been attempting to do in using words such as pod or petal or space bubble is to in one measure get away from the concept of just a circular building. It is absolutely true that these buildings have a geocentered configuration; that is to say, they organize space around a center in various ways. But to say that these buildings are circular instead of rectilinear is too simplistic. We are still struggling to develop an architecture that reflects the representation of human activity, or the shelter of human activity or the fostering of human activity, in the form of a group. Some groups are small. What is a group? Two people, I suppose. Some groups are two thousand people. But we are fostering the sheltering, the environment which enhances the exchange of not only words but the exchange of emotional relationships which come automatically, or perhaps genetically, as we make contact with other people. I stumble around with this because it is to a certain extent a new field of humanism. It's not precisely a science of humanism, but it has to do with psychological, physiological, measurable, emotional experiences which people have as they come in contact with each other. I think we have been so casual about this in the past, as we stored people in various ways, that perhaps I am overreacting to once again make us aware of the realization that this human relationship is a very sacred thing. It's what makes society. It's what makes society operate. It's what makes society respond to the individual so that we aren't just a measurable mass of people, as the Freudian or the Marxian precepts would have encouraged us to continue with. We are basically one and one and one who end up being thousands and who end up creating an entire social statement. Now, I think I've said enough about this because all I do is flop around and repeat myself.

Blum: Then how does your architecture—your design, your plan—help people interact? How is your architecture different or better than others?

Goldberg: I'm not in competition with the rest of the architectural profession on this subject. I am simply trying to make architecture responsive to the sociological developments which have occurred around us and which we are all aware of.

I haven't invented anything, I'm simply observant of this social condition. Let's go back to Marina City, which I was quite aware of thirty years ago or more. At Marina City we have two major towers, we have an office building and we have yet another curious building in the center that no one has very clearly understood, except myself, perhaps. We also have, of course, a building that no one ever sees—that's the building underneath that spans the entire three-acre site. The building underneath, I realized, would very seldom be seen. It was yard-goods space, and it was space that could be utilized for many things. It houses a boat marina, it houses stores, it houses meeting rooms, restaurants, a lobby. It could have been designed in many other ways, but we had the problem of penetrating that building with other buildings that needed foundations going through the lower building. So, it became practical to design it in a certain way. The towers were clearly meant to create a rather high-density community on each floor, and what I failed to do there was to create intermediate communities in the forty floors, or more, of apartments. In a sense, it was like living out in the suburbs and going downtown to a central place where more people congregated if you took an elevator from the sixtieth floor at Marina City and came down to the subgrade where the stores existed and the restaurants existed. The office building, again, was a kind of yard-goods building, similar to the base building, but the office building was capable of being divided into subspaces, and the columnar organization in the office building permitted a very unusual corridor of space thirty- or forty-feet wide, I think the dimension was, by almost four hundred feet long. There are two channels of that space flanking a corridor in the center. Now, the ratio of window to internal space was very high because I felt that the current office buildings with their large central spaces that had no access to the exterior were a kind of denial of the need for people to have access to the out-of-doors. My vision was of future offices not being a place where the humdrum of typewriters would govern the shape of space, but rather the future office space would be a managerial space. It would be a space that would house many small operations of a creative type—creative managerially—populated with either small entrepreneurs or populated with groups of managers for larger businesses. I

reasoned that no business could any longer afford to pay for space in order to run a typewriter. Now, those managerial spaces were capable of being controlled internally in clusters of about 1,200 square feet each, so far as atmosphere was concerned. As I mentioned earlier, we had a very, very high light level in those, all designed to handle another social problem—the problem of working and how to work and how to create an environment which did not exhaust people but would rather enhance the ability of people to live and work in a relatively high-density environment. Now, in addition to that, we had a small building—that was the building in the center—which housed at least one theater and was capable of housing a couple more theaters. That was a building where the scale of space changed radically. It was a much smaller scale of space. It was meant to be a point of entry for perhaps the 2,000 or 3,000 people who would live in the two towers above it. Those spaces were all, for me, quite different. They had different functions, and by function I don't mean the function of being able to pick up a telephone and get your car parked, but I am talking about the human functions—the functions of relationships between people. I did that quite consciously, and at that time, of course, I hadn't yet understood how the shapes of structure affected human behavior, but certainly I was aware of the difference in the way people behaved in various spaces.

Blum: How did this growing, developing kind of awareness that you gained from Marina City manifest itself in your medical facilities such as Stony Brook, which is a vast undertaking?

Goldberg: To get back to Stony Brook and to try to explain the organization of space in Stony Brook as I have been referring to it. At Stony Brook I had the primary problem of housing, I think it was six colleges. It may have been five, but I think it was six colleges. The question came up at Stony Brook, and it was a very hotly argued question, as to whether Stony Brook should consist of six or seven or eight or ten buildings, or whether Stony Brook should consist primarily of an organization of space that could be very closely related one to the other. The head of Stony Brook, Dr. Edmund Pellegrino, who later

became president of Catholic University in Washington and who now is a distinguished professor at Georgetown University, and I had extended conversations—arguments—about the way education should be maintained. Ultimately, in a sense, we compromised. The organization plan of Stony Brook was a cohesive plan where the various colleges could interchange closely their ideas, their education, their contacts with each other so that we did not promote a campus of specialists.

Blum: By colleges you mean orthopedic surgery and dentistry and neurology and the various disciplines?

Goldberg: The various disciplines in health care. I urged—and Dr. Pellegrino accepted this interpretation ultimately—that we make an attempt to provide an environment where there could be a great interchange, as I have said, of ideas, personalities, lecturers and information of all descriptions. There was not the anticipation of having what might be called a wet school.

Blum: What is a wet school?

Goldberg: By wet I mean a school where the old, experimental laboratories would predominate where you would have the smell of formaldehyde in all of the corridors and where the patients dead and alive would be the field of education for the students. It was recognized at that time that computerization would begin to take an important part of the process of education, and the exact method for computerization was not determined. I suggested that if we truly computerized the college, we could reduce the area of the college by a third, at least, and I was warned that if I did that, that I probably would lose the commission because each of the departmental heads regarded his importance as being demonstrated, at least, by the size of his turf. So, we had to maintain certain kinds of spaces. Coming back to the organization of space at Stony Brook, we had what might be called a vast support space built into the side of a hill, which you don't truly see, but it's roughly eight stories in height built into the side of a hill in steps.

Blum: Would you explain a little more about the support space. Is it a built space or a natural space?

Goldberg: No, it is a constructed space, and it starts at the very base with trucks that bring in supplies. We had anticipated that at its peak there might be as many as twelve thousand people in this environment at one time, between patients and service people and support staff, and then, of course, the student body of two thousand to three thousand. You can build this up on a speculative basis to a very substantial number that becomes a basically small city. You need food, you need paper towels, you need computer paper. Then in addition to that, you have a fairly large acreage of space that you are working with. You need trucks to clean the roads, and you need trucks to carry fertilizer out to your plant material and so on and so on. So all of that had to be considered. We also considered, of course, the question of clean air. We designed the total structure to handle more than a million cubic feet of air a minute—fresh air and exhaust that same amount of air—and then, too, we had to worry about conversion of fossil fuels or energy of one sort to energy of another kind and description. So we had all of those physical problems to encourage us to handle on some sort of efficient basis.

Blum: Were these concerns that you worked with, say, in Marina City?

Goldberg: Yes, but on a much smaller scale. When we approached the design of Stony Brook we compiled, you might say, an ecological encyclopedia that considered all of the aspects of bringing this number of people together in an educational institution for public service. We studied things, for example, like public security. We were concerned at that time with the function of Stony Brook in the event of a national emergency. How could or would Stony Brook become a secure center for the surrounding population? We considered, possibly, the aspect of saving fresh water—the reuse of fresh water—because Stony Brook, of course, is adjacent to the saltwater Long Island area. Could we economize on the use of water? Could we reuse water

again; not just process water but reuse it again? The matter of electricity—could we through what today is called cogeneration, or could we by doing our own generating, utilize the heat from conversion more effectively than just buying electricity or buying oil? I hired a half-dozen engineers and told them to come back to me with their dreams about the most efficient way of creating space. And so, in a gigantic area below grade, what we conceived of was a protected space that would have some internal street systems within it. Our utilities were located within the street systems that would permit construction of adjacent larger or smaller specialized spaces, as the future suggested, and we planned to build buildings within that underground space. We built a protective environment that became an envelope, and conceived we would build specialized buildings internally. That was the precept of that particular space below grade. Then we recognized the fact that some teaching activities at Stony Brook would recommend that we needed more exposure to windows and to the out-of-doors environment, such as the hospital and patient rooms. There is, I think, a 500- or 600-bed hospital built above grade at Stony Brook. Above grade also there is a building for basic science investigation. And there is a building for applied science investigation. Those buildings—basic science, applied science and the hospital itself—were interrelated. We put them above grade but their transportation and communication devices permitted them to tap down into the below-grade resource of base-root space beneath it. We now have a picture of separate spaces that are all devoted to specialized education related to health care, but the movements within them were connected to form a relationship we envisioned as a whole health care education.

Blum: One could go physically from one building to the next by way of the lower level. Was that the connection between all of it—physically?

Goldberg: It was a very interesting connection. As I recall, the lower-level building was some 600 feet square, and that's the area of three city blocks. That's a great, long area to move in. So, we installed a diagonal conveyor system to move the people.

Blum: Did you have sidewalks?

Goldberg: Yes, moving sidewalks, but as you moved horizontally you also moved vertically. You moved from floor to floor to floor. Building into the side of the hill permitted this to happen. In other words, as you moved laterally you also moved vertically from floor to floor, and if you chose to move upward directly there were very convenient elevators. You entered the Stony Brook environment at the lower end, and then as you moved from the lower end to the upper end you kept climbing the hill. As you climb the hill you could exit at any point where you found outdoor gardens and outdoor terraces. We divided each floor of this lower area into modules of 200 feet by 200 feet each, making 40,000 square feet, which is one acre of community, and in the center of that one-acre community we opened that acre to the sky. You found an open area, you had planting, you could go out of doors where you could maintain contact with an outdoor environment.

Blum: So what this was intended for was research, treating of patients and education of students.

Goldberg: Yes.

Blum: If I was a patient, assuming I was confined to the hospital for three or four days, how would my care be better here than at Michael Reese Hospital in Chicago, which is an older hospital and, I'm sure, built with different concepts—different ideas in mind?

Goldberg: Almost any older hospital has grown like topsy—it grew accidentally. They started with patients and then you built specialties around the patients. Here we began with a concept of specialties, and the design problem was to make the specialties available to the patients. But coming back to Pellegrino's concepts—the problem was not to confine the school to specialties at the beginning but to create a generalist base of education out to which specialties

were constantly added and communicating with the generalist base for health care education.

Blum: How did you arrange your space so that would happened?

Goldberg: Well, as you moved up the hill, in these one-acre areas you encountered communities of specialization which were compelled to communicate with each other because in order to have food or in order to reach the patients or in order to do a number of things—in order to go to a library, in order to have community meetings, in order to have theater meetings and theater lectures—they had to touch each other. Incidentally, within these streets we had little areas for accidental meetings where people could stop and talk to each other and exchange ideas that were freshly in their minds.

Blum: Areas like gardens or rooms?

Goldberg: Gardens, just unassigned spaces where there would be a bench or a place where they could stop and talk. Now, if you were a patient, you have to understand that in this medical care program with these six colleges, the reason for bringing in people from adjacent communities for health care is a form of clinical education. Students need contact with the community health care problems. And so from the upper level of the hill we arranged for the patients to enter the hospital. The students entered from the lower level; patients entered from the highest level to the hospital areas. A patient would never know that there was this vast city of education around and beneath him.

Blum: Did this plan materialize?

Goldberg: Yes.

Blum: From the drawing, there are three cubes with rounded ends or corners?

Goldberg: If you look at this building in the center, for example, this building really consists of eight cubicles. Each cubicle is five stories high, and each cubicle occupies a quarter of the floor space of the total building. Each floor of a cubicle has a center of its own which also can communicate quite directly with the floors beneath it, but at the center of each floor various support functions are installed to serve all cubicles on the same floor.

Blum: Does each cubicle have a special function?

Goldberg: Yes. Potentially it can be organized that way. We designed two six-sided towers that are for the patient hospital areas, and a third tower that joins with those two for education and for central services. In other words, the patients are in two six-sided towers and the educational function is in the third tower.

Blum: Did this begin in the late 1960s?

Goldberg: It began in 1968, I believe, and I think we left Stony Brook about 1980.

Blum: Stony Brook is so far away. How did you, a Chicago architect—prominent, of course—but how did you get this job in Stony Brook?

Goldberg: The state of New York at that time was investing in its educational system at a scale that is hard for us here in the Midwest to realize. They were spending one million dollars every day to construct a new higher educational system in the state of New York.

Blum: That's incredible. There were New York architects, I'm sure, who knew that and had an edge. How did you get this job?

Goldberg: They had an edge, but the state administration started reaching out for out-of-state architects. Smith, Hinchman and Grylls did some work from Detroit. I think Harry Weese did some work on one of the colleges. I've forgotten who all they used, but it was such a vast program that they reached out across the

country in order to select architects.

Blum: Did they hold competitions or invite you to submit a design?

Goldberg: They invited us to submit a record of our work in the health care field. We had written a master plan for Harvard at that time—a rather thick master plan, which is part of the Library of Congress. The head of the college program for the state of New York was a man by the name of Anthony Adinolfi. He was a brilliant man, a brilliant educator. They had imported him from Detroit. He was favorably impressed with our work and gave us the commission to design this, first as master planners and then as the architectural/engineering group.

Blum: By the time you submitted your master plan for Stony Brook had you done the Harvard master plan and the Elgin State Hospital?

Goldberg: Harvard went on in its master-planning phase for many years. As I once commented to the trustees at Harvard, I felt they would rather talk than build. But they were intriguing and intelligent, and a brilliant group of men who were trying to plan for the medical future at Harvard. We started at Harvard, as I recall, in 1964, and I don't think we broke ground at Harvard until 1976, perhaps. I may be wrong on the precise dates, but it was a long, long period. We were master-planning the Boston area at that time. We were trying to work with physicians. There were six hospitals or five hospitals which were intended to come together in some vast, medical-educational and medical care environment. We learned to deal with a lot of trustees, and we had to understand a lot of the sociological forces that were prevalent in the Harvard environment.

Blum: Was it through the Harvard master plan that you really did a lot of your research that reflected itself in Stony Brook?

Goldberg: Not alone Harvard. We were designing in the entire field of health care. We

were also doing work at Stanford, and the environments were not dissimilar. They each had their own characteristics, but the interplay of information was intriguing and influential in the development of concepts and ideas that affected each other.

Blum: The health facility that I'm most familiar with, of course, is Prentice Women's Hospital at Northwestern in Chicago. In some of these medical care or health care facilities you used cubicles that were connected, or cubes that were connected—six-sided buildings or round buildings, square buildings. And, of course, as I say, the one that I know best is Prentice, which is a circular tower on a rectangular base. Did the shape matter?

Goldberg: Yes, the shapes were both influenced by the function, and in turn influenced the function. To come back to just correct your impression, slightly, of the geometry of Prentice, while you are absolutely correct about the square base, the superstructure at Prentice consists of four pods interconnected in a very interesting structural form for which we were awarded an engineering recognition. The superstructure consists of two elliptical forms intersecting at the center core. They are cantilevered from that core that provides support service for all four of those resulting pods.

Blum: Is that the same, or almost the same, general idea that Marina City came from?

Goldberg: No, not in structural form, but in relationship. Instead of designing sixteen pods around a core, here we designed four major pods around a core, and the structure is quite different. At Marina City we had a core which was, of course, not only self-supporting but which helped to support the entire structure through its sixty-five stories, and at the exterior we had sixteen columns in a circular arrangement that penetrated its rectilinear base structure. What we learned about these compositions of square spaces and geocentric spaces was a very intricate lesson. The rectilinear spaces in our health care designs generally speaking were at the building base, and they

were what I called the yard goods space. If you needed something larger you just added some more bays to it. The composition of the space, the aesthetics of the space, the fine-tuning of the space was all on the interior. The exterior was simply, in the abstract, a box, but it had an internal structural formation that was quite rigid. It was a rectilinear arrangement of columns and beams. In almost every building, as a piece of sculpture might be imposed upon its base, we imposed a new form, a different kind of superstructure penetrating the box at the base.

[Tape 9: Side 2]

Goldberg: Now, those penetrations by the superstructure of the rectilinear base formed accidental relationships. In the superstructure there was a recognition of a centrum, of an axis for the pods above. As the centrum penetrated the base structure there was a certain amount of confusion between its design and the rectilinear base. We tried to clean it up in various ways. In Prentice Hospital, we tried to clean it up in a much more daring design than previously. We eliminated all penetrations from columns. We allowed the core through the base, but we eliminated all columns. Could we build such a design? The computer had come into existence, and we were able to do a great deal of involved engineering in a very short time, which permitted us to design cantilevered pods from that central core. By means of the cantilever we no longer required any columns.

Blum: It's a very clear explanation. If one looks at a photograph of Prentice Women's Hospital, what you're describing makes far better sense. You designed three hospitals within the same couple of years, in the early 1970s—Prentice in Chicago, St. Mary's Hospital in Milwaukee, and St. Joseph Hospital in Tacoma, Washington. Is this information correct chronologically—Prentice came first and the other two in 1972, the next year?

Goldberg: No. We had had the unpleasant experience of dealing with the columns through the base, first of all in St. Joseph in Tacoma and then at St. Mary's in

Milwaukee. At Prentice we determined to have a different solution.

Blum: So Prentice was the last of the three. That makes very good sense, looking at the diagrams. My question was going to be, how you worked out some of these problems, but you've answered the question in the chronology of the hospitals. Before we get to River City, can we just shift gears for a minute to talk about some things that are part of your consideration as an architect, and certainly the profession? Did you think that architecture was a well-paid professional? Were architects well paid?

Goldberg: No, architects are very poorly paid. It's a very poorly paid profession. At the very beginning of my career, I thought I was overpaid because it was such fun to do the work, and there was so much pleasure from the purely creative acts of design and thinking out the details that I felt that people shouldn't be paid for having so much pleasure. I was embarrassed, actually, to take money. But architecture today, particularly on major projects, is not alone a creative profession or an art, but rather it has become investigatory and developmental, which requires the services of many, many engineering skills. I've described some of them to you. The more creative one becomes in the conceptual approach to architecture, the more essential it is to gather around the entire creative effort a vast number of anthropologists, psychologists, color scientists, technological expertise in the use of materials. It's like building an automobile, only much more complicated, in a sense. I think there are some twenty-two or twenty-five building codes, for example, involved in a hospital, and each of them more or less concerns safety and the protection of human life.

Blum: Didn't those building codes exist twenty-five, thirty-five, forty years ago?

Goldberg: No. I think it wasn't even a requisite to be licensed until relatively late in this century—I think in 1925 or 1930—and the idea of licensure of structural engineering was in 1930, or something like that, in this state. So the function of an architect as an engineer was not a thing that was generally protected or

understood.

Blum: You have been interested in the engineering part of architecture, it seems, right from the beginning.

Goldberg: That, I think, was an outgrowth of the Bauhaus. The difference between studying architecture at Harvard and studying architecture at the Bauhaus was enormous, conceptually. At Harvard the design of a building was like the design of a painting. It was a piece of design that had little or no relationship to the engineering of a building. At the Bauhaus it was quite the converse.

Blum: Because you've had this interest right from the beginning, you have been able to blend both design and engineering. But there are architects who do design and leave the engineering for someone else who has more aptitude or skill in that field.

Goldberg: That is not the way I would describe it. I would describe it by saying that those are the architects who continue to believe that architecture is a mere design problem for some concept of space. I don't think those architects necessarily ignore the spatial relationships of how you enter a building and how you move through a building vertically or horizontally, but these are architects who continue an eighteenth and nineteenth century tradition, or at least a part of that tradition, to regard a building as an art object, as a design object. It is a visual problem. The concept of architecture that at least I have grown up with, and I think I shared this with people at the Bauhaus and after at IIT have an awareness of engineering but not an awareness of the sociological implications of architecture. Nor did the Bauhaus—well, let me take that back. I can remember Hilberseimer, for example, describing the fact that all bedrooms should be on the east so that you are awakened by the glory of the sunrise. That is a kind of sociological approach. I think Hilberseimer, for example, was also greatly interested in the direction of wind and the direction of traffic, and a number of other things which border

on sociological concerns. But these are vastly different from those architectural solutions that simply involve the visual experience of creating a building.

Blum: You spoke about architecture with all the rules and regulations today in part to say that you must be aware of so many things now that you don't feel you're reimbursed enough for your time, unlike the way you felt when you first began.

Goldberg: It's not a question of being reimbursed for my time; it's being reimbursed for the activities that have to be thoroughly explored. It has nothing to do with the profit motive, nor does it have to do with inadequacy of individual reimbursement. It truly has to do with the ability to deliver the services and to deliver the exploration and investigation that architecture today demands. There is another aspect to this that I think is terribly important and, again, which architecture and the dollar sign fail to recognize. In the history of architecture, as it developed through the Middle Ages with the development even of the Masonic orders—the mason who signed his stones and said, "Put this stone here"—one finds that mason was probably the architect of his time. He designed; he had a concept of the space, but that was really all he had to do. He didn't have to worry about heat or light or even daylight or its absence or candlelight and its absence. The role of that mason in self-education and in understanding the needs for his designs and work came from his proximity to either his king or his church. Those were his two clients. His understanding of those elements in his social system was derived from a relatively simple and direct contact with both of those elements. But the architect today, in the nature of our democracy, is taking people from all social strata, from all economic strata, and making it possible for them to develop into interpreters of an entire society. Now, I have long ago in this struggle of bringing blacks, for example, into architecture, proposed that there be some system which would expose these minority groups to majority social problems and sociological development so that the decision makers for space and for the function of our daily lives could become more

sophisticated, could become more experienced in how to make decisions. That education can only be awarded with money, and the money isn't there to create that kind of education. In short, whereas a physician has to deal with the human body and the lawyer has to substantially deal with the law, which is there to be read or learned, the architect has to have an enormous background of unspoken, unformed education, and there is no provision in our society for making this education to minorities possible, easily. It isn't only racial minorities—people with different cultural backgrounds. Our society absorbs people from many origins, and yet we want spatial statements, building statements, developmental statements to be within our existing patterns. To bring the uninformed into a decision-making role is a very difficult thing without adequate money in order to make it possible to have a system of tutorials or apprenticeship or social development.

Blum: Are you saying that the system should do for young architects or students who are studying to be architects what you did for yourself?

Goldberg: In a sense. I mean, it's much easier to say if you have a middle- or an upper-middle-class background you can acquire a very substantial background in making social decisions that is not easily possible if you don't have that kind of background from which to work. And yet in the minority groups and the younger generation that wishes to really change the world and make a better world, there is a real push to become architects, city planners and various other kinds of things, and it's very difficult for them.

Blum: How large is your office today?

Goldberg: We're down to about fifteen people.

Blum: Do you have any young people in your office?

Goldberg: Oh, yes. Surely we do.

Blum: Are there any minority people?

Goldberg: Sure.

Blum: What do you do to facilitate bringing them to the point that you said students should be before they become architects?

Goldberg: Little or nothing. We have no facilities for this. It's human contact, it is the accidental decision-making. It is giving them a problem and then saying, "Go solve this problem," knowing that we have the solution but giving it to them to solve so that they have the experience of solving the problem.

Blum: Have you ever taught?

Goldberg: No.

Blum: It was a missed opportunity. But I can I presume that you function as a teacher for those around you in your office?

Goldberg: Well, you know, you get letters thanking you. People go on and they take other jobs. We teach too little in my office. Skidmore, I think, teaches more. They have more resources with which to teach, and they devote part of their income, I believe, to teaching. We don't have those resources. We barely have enough money to do the kinds of investigations and the kind of assemblage of people around us for consulting and for working with us; for sharing our fees to develop these things. So if we had more money from our fees, if we had a greater share of the construction pie, we obviously could equip ourselves to do this, and it should be done.

Blum: Well, I certainly see the growing complexity you describe in the profession.

Goldberg: I think it will become worse because I think the profession is disappearing. I think the profession is being absorbed by the developer or by the contractor

or by the construction manager. Each of these groups has his own in-house architect, and the architect as an individual operator or industry or profession is, I think, becoming absorbed, particularly in the more important aspects of this. I think that will become more the case rather than less as time goes on.

Blum: I read the very same idea expressed about photographers—individual architectural photography firms—because apparently large offices now have their in-house photographer. Who did you use as a photographer most of the time?

Goldberg: Hedrich-Blessing—Ken and Bill Hedrich. I never knew who Blessing was. The Hedrich brothers understood in the new architecture the drama that was created by shades and shadows and details. I am afraid that they also understood the need for bringing trees and sky and clouds into a counterpoint against this new architecture of planes and cubes and vast expanses of industrialized material.

Blum: It was a new way of presenting architecture, and it was during the 1930s at a time when, I suppose, a new aesthetic was becoming more popular. Was the Mullins house the first building they photographed for you?

Goldberg: Yes, I think it was the Mullins house. It was to be published in *Architectural Forum*.

Blum: How did it come to be published?

Goldberg: Well, it was the *Forum's* business to publish new architecture. You mean why would they want to publish a $5,000 house? Because Howard Myers, who was the editor of the *Forum* at that time, realized that there was new interest in architecture that he had to announce or help announce.

Blum: Did he contact you and you hired the photographer, Hedrich-Blessing? How

did that work?

Goldberg: I don't recall exactly what brought us together, but he wanted to have pictures of the Mullins house. He wrote and said, "We want to publish your work," and I said, "I can't afford to get it photographed." He said, "Well, you don't have to worry about that. We will pay for the photography. Can we publish your house?" I said, "Yes, of course."

Blum: Did you select the photographer?

Goldberg: No, he selected them.

Blum: That was a time, apparently, when everyone was trying to create the consumer economy, and I wonder whether it was to sell magazines or to publicize your name or promote modernism?

Blum: I think it probably was to recognize modernism more adequately. I think there were two magazines at that time. One was *Pencil Points,* as I recall, and the other was the *Architectural Forum.* There may have been others, but I no longer remember them clearly. The idea of publishing houses in that price class was, I think, new for Howard Myers—not new for him but new for the profession. I mean, in the final analysis the profession was dedicated to visual excellence, and visual excellence was defined not by $5,000 architecture.

Blum: But we needed housing at that affordable cost.

Goldberg: Very badly did we need housing at that cost and, of course, the old Beaux-Arts system did not include that interpretation of architecture as really consisting of essential housing.

Blum: When Hedrich-Blessing—I presume it was Ken Hedrich—photographed the house, were you there?

Goldberg: Yes.

Blum: Was it a collaboration? How did it work?

Goldberg: No. I hear by your questioning what you are driving at, but it didn't work that way. I think that in the things that we did together, with very few exceptions, it was all their selection of views and angles and things of that sort. Occasionally—particularly at Prentice Hospital, I remember—we met together on site and I emphasized the structural elements that I suggested be contrasted for their work. But generally speaking, all compositions were theirs, and the selection of interesting details was their work. They understood contrasts of materials, they understood the cubism which was involved and how to achieve a composition out of the cubist elements in these houses or in these architectural things.

Blum: You spoke about using Alfred Caldwell as a landscape architect. And with him, what was your collaboration like, or was it a collaboration? What was that like to work with another professional on your job?

Goldberg: What is it like? It is difficult. In the first place, in a sense it's like getting married. There has to be some kind of emotional exchange that you share with collaborators. There has to be not a precisely similar approach to the same problem, but there has to be some kind of sharing of values. Now, with Caldwell I think he loves and appreciates landscape work, and uses it quite the same way as I would use industrialized materials to build buildings. I mean, obviously he uses these natural forms in ways that are both compelling and restrictive. But I think he approaches these things in quite the same way that I do industrial materials, and from that point on I try to keep my hands off of the collaboration. Only to the extent where I feel they begin to interfere with the objective or fail to achieve the objective, then I try to make the objective even more clear to the collaborator, or try to change the architecture so it suits the collaborator. But generally speaking, it's a

cooperative effort.

Blum: Was Alfred Caldwell your favored choice of landscape architect, or were there others?

Goldberg: I worked with [Hideo] Sasaki in Boston. I would say that Sasaki was a very good person to work with—don't misunderstand anything I have to say in that respect—a very good person to work with, and his work tried to achieve the architectural objective. I always got a bigger emotional experience, however, out of working with Caldwell, probably because of his personality. Sasaki, in the final analysis, was more of a landscape firm than a landscape personality.

Blum: In the beginning, when your buildings were published and the credits were listed, there was usually an engineer, either structural or whatever. Who were your favored engineers?

Goldberg: At the very early time in my career I worked almost exclusively with Frank Nydam, whom I've discussed with you. With Marina City I then began to work with better-known engineers, or more creative engineers—I don't quite know how to describe it—but engineers who had a much more sophisticated experience with forms. That is not to say that Frank wasn't good. He was a very good man, and he explained things very articulately. But Fred Severud was a spectacular engineer.

Blum: Is the computer now your engineer?

Goldberg: No, the computer is the workhorse. It depends upon the problem that I have, but we do quite a bit of engineering in-house. For example, Prentice Hospital we engineered in-house. We always try to use two engineering groups, one in-house and one out-of-house. Sometimes the out-of-house one is the leader, and sometimes the in-house one is the leader, but we try to use one group to check another.

Blum: Especially in the early years, did you make a special effort to market your architecture; to publish, to sell yourself so you could get more jobs?

Goldberg: No, I don't think, you would say "special effort." It was word of mouth, I would guess. I have never had a sales force. There are architectural offices that have sales forces, today and during World War II and certainly right after World War II.

Blum: Publishing, in a way, in architectural journals such as the *Forum* is certainly a way of making your work known to prospective clients.

Goldberg: At the time the *Forum* was publishing my work, I think it was largely subscribed to by other architects rather than prospective clients or whatever. I have not published in any American magazines for a long time.

Blum: I've got a long bibliography of your work, but I don't read Italian or Greek, and the list is almost to date.

Goldberg: Yes, but I don't think the hospitals that you are talking about, for example, have been published.

Blum: Not as completely as something like Marina City.

Goldberg: Well, River City has not been published much, but I refuse to allow River City to be published, and I refuse to allow the hospitals to be published. I wanted them all published as a cohesive story. I've only talked to one magazine publisher, who was unwilling to do this because he didn't understand, really, how this architecture differed. He saw the architecture as being, again, individual. He offered to publish individual buildings within that, but I wanted it published as a cohesive story—the story that we are exchanging here today and have been. I think that the story in its fullness, if it has any message, has that message. If it isn't a new approach to

architecture—and I don't believe it to be a new approach—but if it isn't seen in its totality, then the buildings have much less significance than they should have.

Blum: Do you see your health care facilities as a separate unit or series within your total career? Or do you see them in a continuum with everything else you were doing, say, in 1972 or 1965?

Goldberg: No, they are not separate. They seem to have more similarity because basically they have a functional target that is not regional, that is not influenced by economics. The target is to take care of health. One might say that apartment buildings are the same, or one might even go more universally and say as Mies did that all buildings have a kind of similarity, whether it is an office building or an apartment building or a school, for example. I think there is a given similarity in all of Mies's work. But no, I don't think that they have that. On the other hand, they have a sharing of interest in space that I had hoped to clarify in these discussions. But our designs take different forms, and it's the difference in the forms and the interest in the space, and the use of structure to produce that space, that I have been really trying to get published. I think Michel Ragon in the *Goldberg On the City* book made that more clear than anyone has to date. Allan Temko, I think, made that reasonably clear in the publication for the exhibition started by Ante Glibota about the Chicago School.

Blum: Do you feel the press, in general, has treated your career fairly?

Goldberg: Oh, fairly—I don't know what is fairly.

Blum: Are you satisfied?

Goldberg: No, I am not satisfied, not for myself. I mean, I don't want to sound as if I were some kind of missionary here, but what I have experienced, I think, has a universality. How do I sense this? I sense this when I am asked to make

speeches and when I talk to younger people, which is where these speeches generally emerge. The younger people understand what I have to say, and they understand the difference between what I am saying and what their general daily message is. I think that that can be shared with a broader group, and I would think that that kind of publication would be welcome for me. But it hasn't happened.

Blum: Well, there have been several interviews with you that have been published in the recent past, and I think some of what you say now has gotten out; indeed has been published. Maybe not one long, cohesive story, but certainly bits and pieces.

Goldberg: Yes, then I should be more grateful than I am.

Blum: You are a member of professional organizations, such as the AIA [American Institute of Architects). And you are also a fellow, which is their top honor. Do you feel there is any benefit to being a member of the AIA then, in your early years, and now?

Goldberg: I am also a fellow of the American Concrete Institute. I am a very poor joiner. I don't have time for participation, and I possibly don't have interest in participation in those groups. I don't think my comments here are worthwhile for anybody except myself. I think everybody has a way of viewing how to participate in some sort of professional organization. Physicians do an awful lot of joining and participating and exchange of ideas in their profession. I find that in the AIA, for example, there is a very limited exchange of worthwhile ideas.

[Tape 10: Side 1]

Goldberg: The primary purpose of the AIA is to protect the legal positions of architects and to give architects a how-to back-up for their practice—to teach them how to keep their books and teach them how to design a building and teach them

how to do various kinds of things which probably architects in smaller cities where experience is a little more limited can benefit from these kinds of things. I'm sure the AIA has a function, but it's for every architect to select his own special participation in it, if any.

Blum: Is there a status value of belonging to the AIA? Does that have any value?

Goldberg: I wouldn't know. I think that clients get a kind of uncertainty if an architect doesn't belong to the AIA, but I don't know whether a client has a better feel for architects who belong to the AIA or may be president of the AIA. I think the AIA has some political value in securing clients or securing work for those who are very active in it and very highly poised in it and who have dedicated a lot of their time to get there.

Blum: I know of an architect who resigned twice because he just got so angry with what was going on. He was in a position where he needed support from the AIA, and he said they just didn't provide it and he felt it was a very hollow, shallow organization. If you are a member and you feel it doesn't have too much value for you, why does everyone join? Why did you join?

Goldberg: Well, I also subscribe to a poetry magazine and I'm not a poet. I think organizations such as the AIA deserve to exist, and the fact that I may not be able to utilize it either for personal reasons or for reasons of not knowing how to use it, is perhaps my fault as much as theirs. But I simply feel as if it's part of living.

Blum: Just a card-carrying member?

Goldberg: To be a card-carrying member, yes.

Blum: In your earlier years were you a member of CIAM, the international organization for the promotion of modern architecture? As you mentioned, John Root invited you to join. There weren't very many American members.

Goldberg: No, but I was a member in 1937 when Mies came to Chicago. I had some contact with John Root, and he invited me to join.

Blum: Did you ever go to a meeting? Weren't they mostly in Europe?

Goldberg: Yes. They were mostly in France, in fact, I think. No, I never went to a meeting. I used to get some of their literature, and I felt as if it were a denigration of contemporary architecture. I didn't think there ought to be organizations in those years.

Blum: Was that just idealistic thinking?

Goldberg: I'm afraid so, yes. It was youthful thinking rather than idealistic thinking.

Blum: Did you feel there was any value to people who were then very much in a minority getting together and trying to promote the idea of modern architecture?

Goldberg: No. I thought it was awful. It was curiosity as much as anything else that led me to join. There was another group that Howard Myers put together for *Architectural Forum*. I forget what it was called, but it was an inner group of the magazine, and they had contemporary correspondents in various cities. I'm afraid that my name was among those who were on that list of being a contemporary supporter of contemporary architecture.

Blum: Was that an actual organized group, or was it just people he named?

Goldberg: No, he meant to have an inner group of architects who were promulgating a new kind of architecture.

Blum: It seems that from what you've said that the AIA does provide some service for some architects, but maybe not for you. You talked about—I don't know

if you said “setting standards,” but governmental regulations and legislation and things of this sort.

Goldberg: I think in more recent years they have become more helpful on a technological basis, but as I say, I think they are far more interested in public relations than they are in maintaining the quality or the freedom of design or a critical attitude toward the conduct of the profession or whatever.

Blum: Some days ago when we talked about the twenty-five-year distinguished building award for Marina City and your response gave me mixed feelings. You have received many awards and your buildings have received awards. You are a fellow of the AIA and, as you also mentioned, of the American Concrete Institute. What award means the most to you?

Goldberg: I think that the award I got from France, the Insignia of Officier in the Order of Arts and Letters, and the silver medal from the Architectural League of New York.

Blum: Did the first come about as a result of having your work exhibited in France?

Goldberg: I like to think it came about because of the sensitivity of the French government, or at least the cultural division of the French government, to architecture wherever it’s practiced.

Blum: Did they become aware of your work because of the exhibition?

Goldberg: I think it began with a nomination here from one of the French consul generals in Chicago. He was familiar with my work. I truly don’t know just what inspired them or how it came about. I was told that it took several years for them to make up their mind.

Blum: When was that awarded?

Goldberg: I'm just guessing now, but I think it was about 1983 or 1982.

Blum: Sometime earlier you mentioned a patent. Did you patent more than one thing? What was it you said you had patented?

Goldberg: We got a patent on the development of plywood into a tube for the railroad cars. I didn't directly get a patent myself, but my firm and the people who worked on it in my firm, through my encouragement and to a certain extent through the contribution of some of the ideas I offered, got a patent on software for computers. If we ever choose to enforce the patent, it would mean that virtually all the software that regulates word processors would be paying me a royalty. I just don't have either the energy or the money, but most importantly, I suspect, the money, to try to enforce the patent.

Blum: Why did you patent these things in the first place?

Goldberg: I had dreams of converting ideas into industrial applications that would provide an income of a substantial sort that would in turn permit me to do other things without reference to having clients and struggling to make money and to keep my office going in a normal way.

Blum: Could you make that dream come true if you would enforce that patent for the software?

Goldberg: It would take a very substantial amount of money to enforce that patent.

Blum: I wonder, then, what is the value of getting a patent? Because isn't there a substantial search to begin with?

Goldberg: Oh, yes, it costs money to get a patent, without question. Yes, and I just haven't thought it through adequately.

Blum: Not knowing much about patents, I'm really impressed when I hear someone

has a patent on something. Is there some public relations value to it?

Goldberg: I don't think we've ever used those patents for public relations value. But no one builds plywood tubes for freight cars. They do build steel tubes now for freight cars. They took the principle that we had, but we were too dumb to patent it for steel. We just patented it for plywood.

Blum: In your biography that is published in the AIA biographical dictionaries, a substantial list is given for study—study of American cities, study of campus planning and building design, housing and urban development. What were those studies all about?

Goldberg: I don't remember ever filling anything out for the AIA biography, and if I did I will try to remember now what I had in mind.

Blum: Were there studies of this nature that you engaged in?

Goldberg: Oh, we have done a lot of study. We have printed books on various studies. At the time we designed River City, for example, we made rather profound and certainly expensive studies with consultants and other people who had opinions on such things as urban density, on urban education, on materials. We made studies on cogeneration of electricity. We made studies on transportation. We published little brochures for those things as a background.

Blum: Was this just for internal purposes, or for general distribution? Were they shared with other people, given at a lecture or something of this sort?

Goldberg: On density, I think we printed about five hundred copies of that and distributed that through the city. I don't know how many people read it, if any, but we got some inquiries on that. On urban education, I know we printed a great number of copies on what we did. These were all studies that we had intended as a basis for continuing design at River City.

Blum: It's my impression that you have always been very thorough in your research. It seems it's not simply directed towards a particular building or a plan. It just seems to be so comprehensive.

Goldberg: I always feel as if there is more to be done. There are people who might say it's too disperse; that I should have been more of a specialist and stayed with one thing. But I've had a fairly broad interest in the areas which urbanism led me to. I mean, urbanism is like saying life. It is a special kind of life, without question, but it is a very complex subject all bound up in one word—in a very small word. It's very difficult to even describe what urbanism is. Urbanism for me is simply a description of the way people come together, and it is a very natural way for people to come together. Traditionally and historically people have always come together. Even when they go to the suburbs they ultimately form cities. This is a kind of intriguing phenomenon about the way people live. No matter what visions they have of the perfect way to live, whether it's on an island or in Lake Forest or in the forest preserve, they ultimately seem to form congregations that we tend to call cities. The reason for it—what they do, the way they act when they form those cities—is, I think, an intricate part of architecture.

Blum: This is all of what you've studied or factored into your research in one way or another.

Goldberg: I have tried to, yes. Sometimes it's more successful than others, or less successful than others.

Blum: You've mentioned the American Concrete Institute.

Goldberg: Yes.

Blum: We've talked about many of your projects—why has concrete been your material of choice for the most part?

Goldberg: Because it has the greatest flexibility for adapting to the various conditions and forms that we find necessary or at least desirable to develop in this story of space. Steel is not a readily flexible material. Detroit has understood that you can take steel and turn it into virtually a new material by stamping it. You get strength out of the shape of steel sheets, just as you can get strength out of the shape of concrete shells. But whereas you need big presses and you need big dies and you need much more quantity in order to make steel in these special forms, a practical element in a building budget, the methods of using concrete in these various forms are much more readily available, and so it's a material of choice.

Blum: Am I correct to understand that you have to make a form for the concrete and let it harden, and you've got your shape that you want?

Goldberg: In one way or the other. But I have succeeded in making these shapes without building a form, unless you consider the reinforcing mesh that is quite easy to bend and model. That becomes the matrix against which you spray concrete.

Blum: Did it function as an armature would in a piece of sculpture?

Goldberg: An armature in a piece of sculpture you might call the core form, and the actual refinement of the form develops around the armature. In spray concrete, the concrete much more rigidly follows the form of the mesh, and the mesh in turn becomes a part of the reinforcing of the structure. So it's a relatively different form of sculpture, but it's almost a true sculptural development.

Blum: In your mind, what came first—your forms or the material that would make your forms possible? Is this the chicken-and-egg question?

Goldberg: Interestingly enough, when we designed Marina City we were under

pressure from the steel workers' union—from the American Steel Institute—to do the building in steel instead of in concrete. Bill McFetridge, who was, after all, a labor leader, was under pressure to at least investigate why we had chosen concrete instead of choosing steel to build the building. So I agreed to design the building both in steel and in concrete to settle the argument, and we took bids on it both ways.

Blum: Was it the same building as we now have?

Goldberg: No, it couldn't be the same building. The steel building was much more like putting sticks together than the concrete building, which is more like creating a kind of body that had its own integrity. Nevertheless, we designed it and estimated its cost, and the concrete building was a more economical form to build.

Blum: Do you still have those drawings of a steel Marina City?

Goldberg: They must be someplace.

Blum: I just couldn't picture it any other way than the way it is.

Goldberg: Well, until you mentioned it, I had forgotten that we did it. So, we went that route. But you asked the question, did the forms come first? Yes, the forms came first, but in visualizing the forms I obviously visualized them in material. Now, in the first physical model of Marina City, which we built in a full-size form, it seems to me we built—oh, yes, I know where it was. It was in the model that we created downtown in an office building so that we could look at the spaces. I told you about furnishing the efficiency apartment and the one-bedroom apartment. We had designed the joints and the forms of the concrete much as you would design a steel form. Where two forms came together—say, for the sake of discussion, a beam and a column—they came together on a right-angle basis as a right-angle design, which was traditional in concrete forming, and it still is. But when I saw the design I

realized that what was going on in the distribution of stresses was not being reflected by these rectilinear junctures between these various members. We came back and we did some more study to see whether there was any increased efficiency in developing the fluidity of the structural forms that you see at Marina City, where the columns merge into beams and where beams move around in a kind of flowing pattern rather than in a pattern that would be created by the juncture of sticks. We found that we could save a very substantial amount of reinforcing bars by using these forms and distributing the stresses in the pattern that you've seen there. That economy in reinforcing bars more than paid for the cost of the forming of the columns and beams.

Blum: It strikes me as being so interesting, and maybe this is in the nature of the process. You talked about Astor Towers first being conceived as a round building, but actually constructed as a rectilinear building. And then talking about Marina City in one material, and then the next. I know that there are, I'm sure, numerous instances—Executive House, for instance, was conceived as a round building but constructed as a rectilinear building. And with the Promontory Apartments, Mies had apparently designed that building in a steel and glass version, but it was not constructed in those materials. It just strikes me as interesting that so many of these major changes or translations occur in the process of arriving at a final solution, for not only you but many, many architects. I understand why you were compelled to try a steel construction, but is that in the nature of the process?

Goldberg: Without question. In the nature of the process of building major structures, and sometimes smaller buildings, you learn from the creativity. You frequently wish you could do it all over again, but that generally is impossible. On the other hand, as you move along, you change your ideas and improve them, you hope. The extent to which that happens or is possible depends on the stage of development when you can make that improvement. At Prentice Hospital, for example, we were able to early on conceive of a cantilevered form and try to engineer that form so that we would know that we had it available.

Blum: Was that as a result of having done the two hospitals prior to that?

Goldberg: Yes. We knew it was a desirable achievement in design and engineering. Could we do it, was the next question.

Blum: I suppose no one has successfully described the creative process, and I think that's sort of what we're talking about a little bit.

Goldberg: The creative process is a very mysterious one, and fortunately it continues. But it's not a method. It's not a science.

Blum: But it happens. It's a process. When you sit down to put something on paper, do you share ideas with other people?

Goldberg: Oh, surely. I don't share them until they're relatively complete. Sometimes in the nature of running a larger office you undertake to develop a design through somebody else. If that works, that's wonderful, but if it doesn't work ultimately and you're hungry enough to achieve that design, you lock yourself in a room and work on it until you either have it or know that it has to be discarded.

Blum: What do you mean, to find a design through someone?

Goldberg: If you have an idea, for example, you say to someone, "Why don't you look at this and see if we are able to do this thing that I have thought of doing. Can this be done? Will it work?"

Blum: Do you mean is it physically possible for it to stand up?

Goldberg: Well, is it either physically possible to stand up, or are the spaces useful, or are there restrictions in the use of this idea that we haven't thought of, and so on. So somebody else's pencil and somebody else's head becomes the

medium through which you are working. If it works, that's wonderful, and if it doesn't work, as I say, and you are still convinced that the idea has a possibility of being achieved and you think it's important enough, then you go back and do it yourself.

Blum: You have said that your office today is fifteen people—you said "only" fifteen people. How large has it been at a larger stage?

Goldberg: For a period of about ten years we were at a level of about 150 people. We had an office in Boston. I don't know whether the Boston office and the Phoenix office were simultaneous, but we had an office in Phoenix. That was too much. To spread architecture out that way is possible only if you run it as a well-run business, as a well-run organization of people. It simply isn't the way I operate. I operate on much too personal a level to allow that to happen effectively. I used to travel as much as 200,000 miles a year and also try to be creative, and it was too much.

Blum: Well, there certainly is a loss of control, or the personal touch, is what you were saying.

Goldberg: It's more than the personal touch. What I've just described about being able to achieve ideas through somebody else's head requires communication—a very high level of communication—and either I don't know how to communicate or the communication of subjective ideas is not that easy to achieve. You can communicate, without question, if the ideas are substantive and something that can be measured or written or judged or manipulated, but it's very difficult to do that on a basis of subjective ideas.

Blum: I had asked you if you had ever taught a course at a university or whatever, and you said no. I realize in checking my notes that you have been a lecturer at the University of Chicago, Northwestern, the University of Illinois, Notre Dame and Ball State University. That's a pretty substantial list.

Goldberg: And others. But those are just isolated lectures.

Blum: They were teaching; they were instruction for young people. I don't know what the topic was each time, but I'm sure it was related to what you do.

Goldberg: Oh, I enjoy those lectures because it allows me as well as compels me to formulate ideas which are rather amorphous unless you do sit down and force yourself to organize those things. In fact, I have also lectured at the AIA. As I say, I don't regard that as teaching. That's more an explanation of the human condition than it is teaching.

Blum: Well, I think it certainly comes under the general umbrella of education for those who are listening and perhaps for those who deliver the lecture, as you've just said.

Goldberg: Yes. It's very educational for myself.

Blum: When you pull together a lecture, generally speaking, aside from being clear and articulate, what do you hope to tell the people who are sitting in front of you? What do you hope to communicate?

Goldberg: Generally speaking, I hope to communicate something that I personally have learned that wasn't there previously. I can remember the first lecture I ever gave. I think it was at the Art Institute. It had to do with an explanation of what I was designing at Marina City. I think it was in Fullerton Hall. I think the second lecture I ever gave was to a group called the Electrical Contractors Association, or whatever it was, and it had to do with what I had already found out about the future of cities—that you could not afford any longer to maintain a forty-hour city. You had to bring people back into the city to use what we were spending our money to build and create and develop. You had to bring them back into the city to use it more fully.

Blum: Was it related to Marina City?

Goldberg: It was very clearly the conclusion I had come to as a result of building Marina City and building the multi-use development at Marina City.

Blum: For more than sixty years architecture has been your focus, professionally. That's your professional life, but you've also had a personal life. Has your professional life impacted or influenced your children, your wife? Are any of your children architects?

Goldberg: Yes. Geoff, my son, is an architect. Geoff at the moment is in charge of designing the third airport for Chicago. I'm very pleased and proud for him that he has gotten that commission.

Blum: It says something about you, too.

Goldberg: Well, not really. Has it impacted? Yes. I'm sure that the kinds of interests that guide my life, to a certain extent, have been shared with the family, and to that measure they are aware of things that they wouldn't be aware of if I had been a stockbroker, for example. Or if I had been a physician they would have been aware of other things. But an architect's life is a very yeasty life. It's full of lots of new things and new experiences. Certainly my family has been very tolerant of the demands that it's made on me, and they have been very good about supporting the various interests that it involves.

Blum: Does your son work with you?

Goldberg: He did for about five years, I guess it was. He worked in New York after he finished school at Harvard. He worked in New York for about, I guess, five or eight years.

Blum: What kind of office did he work in?

Goldberg: I think he worked with I.M. Pei for three years. I've forgotten the office he

worked with earlier. He could tell you that. Then he came back to Chicago and we worked together. It was for about five years, I guess. Then he decided that he wanted to sit and think for a little while, and he emerged to design the airport or to be in charge of the designing of the airport.

Blum: A pretty nice coming-out party.

Goldberg: Yes, a nice debut.

Blum: You are Jewish. To your knowledge, has religion ever impacted or influenced the path of your career—the clients—in any way?

Goldberg: Not to the best of my knowledge, either adversely or supportively.

[Tape 10: Side 2]

Goldberg: I think the Jewish cultural patterns, perhaps, make it easier to be an architect. I think traditionally that the Jewish cultural patterns have had in government, in politics, in sciences, in creativity and what we call humanism don't necessarily make it imperative that one involve those various activities, but if you are involved with those activities it's much more natural and easier than it is to say I'm going to be a something that wouldn't have been quite so supportive.

Blum: I thought that architecture—or those that practiced architecture years ago—was considered a gentleman's profession.

Goldberg: You mean in the concept of a Christian gentleman?

Blum: Yes, and I didn't think very many Jews were architects.

Goldberg: I'm not a gentleman so I can't comment on that, but when you go back into the history of architecture in the Middle Ages, I'm not sure who the architects

were—whether the architects were sort of the super-workmen, the super-artisans, or whether they were patrons of the artisans. Certainly the relationships between the Medicis, for example, and Leonardo would not have been—I don't think that the architects who designed portions of the Vatican were gentlemen in the sense that you are describing.

Blum: Maybe we don't have to go back quite so far. I just thought in the United States, say in the twentieth century and late nineteenth, there were certain professions that either Jews weren't very numerous in, or there were professions that restricted, to some extent, Jewish participation, such as veterinary medicine. I thought architecture was a profession like that.

Goldberg: If it is, no one explained it to me in time to stop me.

Blum: Did you find that there were clients that favored you because you were Jewish?

Goldberg: I've not had that experience. I've not had an adverse experience. We've done work for Catholic orders, for example, which are noted more for patronizing other Catholic people. But they have seen fit, on occasion, to give me work. Certainly one finds anti-Semitism at any level, any place, but I don't think I have experienced it as something on a personal level. I'm trying to think. There are lots of Jewish plumbers. There are Jewish electricians. It's strange to find who either turns out to be Jew or who turns out to be an electrician or a plumber. There are Jewish carpenters. I don't trace the sense of being Jewish with either success or failure in architecture.

Blum: There is something that you have said and has been published in quotes, and that is that you resent the idea that you're known as the architect who builds round buildings.

Goldberg: Yes.

Blum: Some critics have said that you are unfairly uncelebrated in Chicago. Would you comment on that?

Goldberg: Uncelebrated is not the way I see myself. What I see is in Chicago a quick concept of the fact that there is such a thing as a round building and that I have designed it, and that I have designed another one and on occasion yet another one. That's a kind of trademark, as if I were known for designing some kind of three-wheeled automobile. But my message, I think, is much more important either than myself personally or than the quick identification as the round-building architect. I am talking about the performance of people in a social system, about the performance of people in the city. I have spent a great deal of time not only studying what I have been able to discover, but to demonstrate it. I only wish there were more people who shared with me this interest in the role of architecture in society. I think I feel strongly about that.

Blum: The comment has been made—and I don't know if it's a compliment or a criticism; I'd be interested to know how you respond to it—that you have no followers. How do you receive such a comment?

Goldberg: I come back to [Josef] Albers' statement. Albers and I were, I think, good friends, and Albers once said to me, "Why is it that everyone who has studied under Mies designs like Mies, and no one who has studied under me paints like I do?" Now, you can develop that into the way I feel about followers. I am not concerned about followers who don't understand the search for the principles that I have been discussing here over these many hours. What I'm concerned with is a broadening of understanding of the role of architecture and a broadening of the role of buildings and space in our society—shelter, call it if you wish to, for various kinds of things. Even the Indians in the Canyon de Chelly [Arizona] knew the difference between religious buildings and, you might say, secular buildings. They understood about space in their society. We have less understanding of space and the role of space and the role of shelter than more simple societies have had in the past.

Blum: Has technology helped or hindered our understanding?

Goldberg: Have we misused technology or have we used it correctly? Certainly technology should have helped achieve many of the things that I have been discussing, and indeed it has. But have we used technology to enhance our humanism? I would say the answer is negative. When we talk about an airport, such as Geoff [Goldberg] is taking his time with now, or when we talk about gambling centers in the city, we freely talk about those things. We freely talk about functions but we don't really understand, and the evidence of it is to look out on the buildings that have been constructed in the Loop during the past fifteen years—twenty years, perhaps. We don't understand the role of buildings in our society as much as we understand the role of gambling in our society. I think, in a sense, that there is a relationship between those two activities, but it is not an apparent one for that many people.

Blum: Can we talk about River City? This is a macrocosm of what you maybe did at Marina City, and tried to do even at Stony Brook. I see a relationship of all the planning and all the different functions sort of coming together in one unified whole. What was your idea behind River City despite the fact that it all hasn't been constructed?

Goldberg: You know, we began to design River City in 1968 when I sat down with Harris Ward, who was then CEO of the Commonwealth Edison Company, and I joined hands with Commonwealth Edison Company to build a new city center. That was the genesis of River City.

Blum: A new city center—what does that mean?

Goldberg: It means many things. It goes back to the fact that Harris Ward and I had spent, in the first all-electric center of Chicago, about five years in discussing and Harris in living—he lived at Marina City for a while, just to experience

what an all-electric city could do; I think primarily to find out about the aspects of electric living. But Harris also in this process—who had thought that life in Lake Forest was the summa of urbanism—Harris and I exchanged enough information with each other so that he also began to share the concerns for a city in broader terms than just either electricity or high-rise or more building or whatever. Harris wanted to help rebuild or build a new concept of a city. Now, I had found or I had identified, the property south of Congress Street. There was a total of about 350 acres of property that was held substantially by three railroads. Harris undertook at that time to sponsor the collecting of that 350 acres, and in some fashion to support the design of that into a new extension of the Chicago downtown. It would have a new educational system, it would have a new transportation system, it would have a new garbage collection system, it would have a new environment of parks and water and gardens and, of course, buildings. It would be a center not only for residential occupancy but also for working occupancy. That's what we started to do. About 1970 or thereabouts, Harris discovered that he had cancer, and he then reassigned the responsibility for this development to Tom Ayers. It was at that point when Tom Ayers and Commonwealth Edison began to treat the development in a more traditional fashion—as a real estate development rather than as a development of a new urban center.

Blum: Aside from the dream, were your ideas far enough along where you—I realize you had to compromise, but did you actually have to sacrifice concrete things that you had already developed in this process of adapting it to a more traditional undertaking?

Goldberg: My ideas were far enough along to cause Philip Klutznick to want to have nothing to do with me in the development of the South Loop.

Blum: I don't understand.

Goldberg: Well, it was very simple. Between Tom Ayers and Philip Klutznick, they

decided to hire Skidmore, Owings and Merrill, and that became what we are looking at in those three-level houses and those various other kinds of rather unhappy looking buildings out there on the South Loop called Dearborn Park.

Blum: Was that the property you originally were interested in?

Goldberg: The property we originally were interested in ran from the river to State Street and ran from Congress Street to 18th Street—350 acres.

Blum: What happened?

Goldberg: As I say, when Tom Ayers became director of this, he decided that they needed someone with more muscle than I had—and someone who was probably less dreamy than I am—to mature the project. He reached out, first of all, for what the world calls a developer.

Blum: A developer is a new concept in the eighties, seventies, and very much with us today.

Goldberg: Very much with us today, but I would say in the seventies to be a real estate developer was not so apparent a mechanism to make that development as it would have been today. He examined Ferd Kramer, and he then selected Phil Klutznick to do that, and between them they selected Skidmore to be the architects and planners. There was a group called the Chesapeake and Ohio Railroad that owned about forty-five acres along the river bank, and there was another group, whose name escapes me at the moment, but they were sports people who had purchased the Dearborn Park area adjacent to State Street. Previously they had assembled the land for a sports arena. Phil Klutznick began his Chicago 21 with the concept of purchasing that and starting off with that piece of land. In the meanwhile, the Chesapeake and Ohio Railroad came to me and said, “Hey, we think your ideas of high density and your ideas of a new city and the use of the river are what we

would like to follow, and so why don't you see what you can develop?"

Blum: Were they your developers?

Goldberg: They weren't our developers. They owned the land, and they refused to go into the development with the Ayers-Klutznick group—with the Chicago 21 group. This was two separate things, both on the South Loop. Then we developed the concept. We built some models, we made a movie, we got some so-called developers involved who liked our ideas, we got approval from the federal government to do this under HUD's umbrella of insured mortgages and we developed what under the Carter administration—the White House, at least—and the FHA called "the cutting edge of a new urbanism." We found that the thing that prevented it was the organization that was represented by a man who is now under indictment, Fred Roti.

Blum: Let me read a few words that Ross Miller said about River City. He said it was "an opportunity to develop and refine an engineering, architectural and sociological program on a grand scale." Do you agree with that?

Goldberg: Yes.

Blum: Who were your developers?

Goldberg: Jerry Wexler.

Blum: So how did it all take shape? I have read that you had done so many sociological studies because you wanted this to be for families, unlike Marina City.

Goldberg: Well, Marina City was for families. Don't get into that FHA trap.

Blum: But River City was also for sandbox children with their parents and other families.

Goldberg: Right.

Blum: It involves many other considerations when you bring sandbox children into the picture. How did you go about all of this, pulling it all together? We're talking about a dream city—an electrical city—and then the reduced concept. Or was it a reduced concept? It was less land.

Goldberg: It was a greatly reduced concept. We spent many years, much money and the effort of many people. It wasn't a one-man gang—don't come under that illusion. We had the support of many people. We worked from 1968 to approximately 1980 to get the blessing—we had money, we had land and we had federal support, and the money which would come from federal support, for various things like new school systems, new transportation systems, new lots of things. What we didn't have, for some obscure reason, was the support of City Hall. Although Richard J. Daley was very friendly and received me on many occasions, the political blessing which was needed to rezone that land from industrial use to residential and commercial use was not obtainable without the go-ahead from City Hall and the alderman of that area.

Blum: Why do you think they had reservations about rezoning it?

Goldberg: I can tell you from the alderman's viewpoint. He made a statement to me that he was afraid that the size of it—the density of it—would cause it to fail of its own weight, and that if it failed the area would become a distressed area and that would immediately permit the impoverished minorities to move into that area, and that would be the end of River City.

Blum: Did that make any sense to you?

Goldberg: Only if you are he. It made a reason for him, but there were also some things that were offered that we could not accept—some conditions offered which

would permit us to go ahead, but these were conditions that we would not accept.

Blum: What kinds of conditions?

Goldberg: I would rather not make those things public. We did have the support of Mayor Byrne at that time, and she thought the project was wonderful. There was one memorable meeting in Mayor Byrne's office where the president of the Chesapeake and Ohio real estate group was present, lawyers were present, Jerry Wexler was present, the city had all of its political representatives present and some who were representatives behind the city scene who just sat in the corner. Mayor Byrne said that she was in favor of going ahead with the project, and after about a half-hour of discussion, the Chesapeake and Ohio people, Jerry Wexler, our lawyers, myself, were invited to leave the room so that there could be some private discussion among the political figures. After about another half-hour we were invited to return to the mayor's office, and Mayor Byrne looked at us and said, "Gentlemen, if you wish to build anything in this property you have to make your peace with these men."

Blum: What did they want you to do?

Goldberg: We finally reached a compromise of building not more than the four hundred or five hundred units that were allowed at Dearborn Park. No units were to be high-rise. They permitted us to rezone the entire twenty-five acres between Harrison Street and Roosevelt Road which would permit a future density of about—I'm speaking from memory now, but I think it was about one hundred families per acre. Now, we were compelled under these conditions, really, to face either a riverfront development that would be attractive and that would be successful commercially and that because of its low density would not be able to achieve many of the things that we were hoping to achieve or, conversely, build nothing. So we designed the River City you see there now by unwinding our towers and making them kind of

sprawled rather than a concentrated way to live. The cost of this to the city of Chicago—the cost of these, I think, rather selfish and politically motivated men, primarily the alderman who wasn't representing himself alone; he was representing a political organization—the cost to the city of Chicago between what we could have done in 1970 and what we were able to accomplish when we began in 1983 was enormous. We were planning as many as 40,000 dwelling units in that area on the 350 acres. We were planning a density of about 250 families per acre. The taxes would have been enormously beneficial to that area of Chicago. The cost of construction would probably have been as much as $20,000 to $30,000 less per dwelling unit—the rent less per dwelling unit, which translates into a difference of a few hundred dollars a month per each dwelling unit. The advantages of creating new schools, new educational systems, can only be guessed at now—surmised—because you never know what you can accomplish with new organizations of that sort, but it was substantial. We had spent three years with the deans of education at Northwestern, the University of Chicago, Roosevelt University, and the head of the archdiocese educational system, who now is head of the Catholic education system and the parochial schools of the entire country. I mean, he was outstanding. We had private educators who were willing to come in and establish private schools. We had a whole new system of creating community life in high-rise buildings that still does not exist. So, the injury was enormous.

Blum: I must admit my ignorance of everything that goes on behind closed doors in a political office, but except for the freshness, the newness, perhaps the fear of the new—of your idea—and feeling more traditional, and with the obvious excuse of too high a density, what was the underlying reason, or what did you perceive the reason to be, that the city wasn't willing to let you go ahead? What did they have to do, rezone? Is that what you had asked for?

Goldberg: We had asked them for rezoning, nothing else. We were going to pay all of the costs of the new infrastructure within our financial structure. Fred Roti was afraid—I am sure he was afraid—that the new population would not be

precisely friendly to maintaining the existing political structure; that they would vote him out, perhaps. That could have been a real political reason for his refusal to allow a development of this importance. Whether Daley should have chosen to ameliorate—I'm not sure ameliorate is the best word—but whether Daley should have chosen to support this conspiracy is a real question in my mind. The question of education is in itself another political problem, I am sure, for the existing apparatus. If you look at the Chicago Plan, which was put together by Ira Bach and some others in 1965, you will find that there was no provision made for educating the increased population of minorities that was apparent at that time, and yet we were going out and very deliberately making a solution for them. Now, in addition to everything else, we were proposing to create a gigantic parking facility there, comparable to the Grant Park parking facility, to create a new port of entry from the Kennedy Expressway via Congress Street. Whether there was some feeling of business competition there, or something that was not apparent to me, could very easily have been another factor. But there was very clearly an effort made on our part to create real political and social change and on their part to resist it.

Blum: What kind of a tenant did you expect to attract to River City?

Goldberg: We had provided for a multiplicity of background in tenant income. We had provided for affordable housing, as it is now called. We had provided substantially for middle-income housing, and then we had provided for a relatively high-cost housing because of its proximity to the financial district and the realization that if it were attractive enough, people with large incomes would want to take advantage of its proximity. So we had, really, a very democratic mix. As a matter of fact, I coined the expression of "democracy through architecture."

Blum: There was another phrase that seemed to be coined by you in relation to this project, and that's "critical mass." Would you explain that?

Goldberg: I had stolen that phrase from the development of nuclear energy. You don't get fission or fusion until you get a critical mass of energy, if you will. You also don't get a social interchange—a regeneration of sociological activity; I don't want you to think these are parties and lunches—you don't get a sociological regeneration of a community until you get enough people. You need people, and as of this moment Chicago has too few people to support itself, either by reason of regenerative interaction or by reason of the money that it requires. For example, my office had made a study on the ratio of what we call a service population—not "service" as it's used today, but people who are getting free social services through our various organizations, not the least of which is our government—as compared with people who are paying taxes to support those social services. At the time of Marina City, for each two-and-a-half families who were taxpayers, there was one family which received some kind of social assistance. Today it is one family supporting another family. Now, that simply means that your tax burdens are unreasonably—I won't say unfairly because I don't know what is fair—but it's unreasonably distributed, and it means that the property taxes, for example, in the downtown area, which are paying roughly 40 percent of the cost of supporting the city, cannot support the businesses that support the jobs that make it possible to pay the taxes.

[Tape 11: Side 1]

Blum: You were talking about the trouble that you had with getting your plan through the City Council or the city planning commission—the political bodies you had to receive approval from.

Goldberg: I think that my experience is a rather spectacular example of Chicago politics, and perhaps big-city politics, at work. I suspected it was because of their worry about what would happen to the voting balance—for whatever reason, the political system did not wish to see more housing built, at least at the scale I was proposing it, in the First Ward. And I say parenthetically, look at the empty buildings that are downtown at this moment that were built to

accommodate new industry but don't have walk-to-work workers in those buildings, that don't have people using the shops that were downtown, that don't have the educational facilities that we proposed, the health facilities that we proposed or the cultural activities that we proposed in our River City plan to establish what might be thought of as a new, small city at the south end of the Loop.

Blum: What was on that property, that vast area and small area?

Goldberg: Railroad tracks. There were no people there. It was railroad tracks and disabled buildings—old wrecks of buildings. Now, as I mentioned to you, we had gone to Washington to get the approval of the Department of Housing and Urban Development, and we were told by the White House at that moment, together with HUD, that what we were proposing, so far as they were concerned, was the cutting edge of new urbanism. We had the enthusiasm of the landowner and even his partnership. We had the equity money to proceed with it, but we didn't have the city's approval. Nevertheless, we went ahead with an application for rezoning, against the advice of the city officials who headed the department. We aligned prominent citizen developers to pass comment on what we were proposing. We brought in so-called experts—I don't have very much respect for experts except the ones I find—but these are people who had made a study of the psycho-sociological aspects of city development, who had made anthropological investigation of the ethnic developments of the city, or the maladjusted ethnic developments of the city, because they were identifiable at that time. We confronted the City Planning Commission at a public hearing. The head of the City Planning Commission, who was at that time Julian Levi, said at this open meeting that he was rejecting our application, not because of the density that we proposed, not because of the inappropriate planning which he alleged was part of bringing 40,000 people close to the downtown where they could walk to their jobs, not because of any of those reasons but because the high-rise buildings that we were proposing were inappropriate for raising children. Now, he quoted as part of his background

on this that the Cedar Riverside project up in Minneapolis, where the courts had ruled previously that the citizens—the shopkeepers, the saloon keepers, the people who owned little houses around the Cedar Riverside project—had the right to publicly object to high-rise developments and increase of density there. But what he didn't quote was the fact that that decision had been overturned by the Supreme Court three days prior to our hearing.

Blum: Did you know about the reversal?

Goldberg: I did not know about the reversal at the time, but the reversal had been published in the legal newspapers that record these things, and Julian Levi, who is a lawyer—who had the responsibility not only of being head of the Chicago Planning Commission but also was in charge of the University of Chicago's development programs—it seemed to me might have been either exposed to this or might have done a little more research before he used this as a background to turn us down. Now, I then reported this to Julian Levi when I discovered this some two or three weeks later, but it made no difference, of course. He had rejected this. There was, again, no question in my mind but what he had been told to reject it by someone. I wasn't there. This occurred in 1983, I believe. It may easily have occurred a little bit earlier, in 1981. There was a whole sequence of our efforts to build in this area and to rezone this area, and, as I indicated in our prior session, this was followed by a session with a new mayor, Mayor Byrne who at a later time said, "Gentlemen, if you want to build anything on this property, you have to make your peace with these people," meaning and pointing to the First Ward politicians who are now under indictment, some ten or twelve years later.

Blum: Could the alderman have been afraid that with a project such as yours that would bring in new people who would not support him politically, he would have been voted out of office?

Goldberg: I think this is substantially his reason, and from his viewpoint perhaps a good reason. But it has nothing to do with the need for the city to rebuild its

residential areas, to rebuild its educational system, to rebuild its cultural system, to rebuild its transportation, to rebuild its garbage collection or to rebuild the entire infrastructure of the city. This was all contained in our proposal and it was all contained in our financing programs. We had approached this as if we were building, perhaps, a new kind of American automobile. We wouldn't have nearly the resistance in building a new American automobile that we had in building a new American place to live.

Blum: Do you think that your proposal was so new, so comprehensive, that however appropriate or however needed, do you think with what you know now of the political system that it was ever possible to build such a new city in the city of Chicago?

Goldberg: Yes, it was very clearly possible. When we built Marina City, for example, these issues were typical of the issues before us, but we had a laying on of hands that was supportive and, of course, we did not have an alderman who was concerned about maintaining a corrupt control of his ward district. Now, the question before people in the city who had the power should have been whether the greater good for the greater number should supersede the corrupt good for the corrupt few. I think that the issue was of such magnitude that for once politics should have been put to one side. Certainly if they were frightened about the scale at which we were proposing to do this there could have been compromise so that people could have been absorbed at a more comfortable rate so that the existing political machine could have tried to persuade people that they weren't nearly so bad as they seemed. We even offered to provide free office space for the alderman in our new project so that he would have an opportunity to provide information and, of course, he would hold persuasion and votes. Now, this is a story partially of corruption, but this is also a story of fear of the new. What is going in Dearborn Park at this moment is heartbreaking for me as a planner and as an architect. Surely these are small homes for smaller families. They are being built, they are being sold, but if you want to say that this is the solution for a city center that employs 600,000 people, I must dispute the logic of what we

are allowing to be planned there. The issues of education have not only not been solved, but when an attempt was made to solve it with a new magnet school in the area, it resulted only in more conflict and in a disruption of an educational system that was intended to attract more and better educated youngsters.

Blum: After you built the Hilliard Center, there was even as early as that time the thought or the idea that high-rise buildings were not healthy environments for families. It was just too anonymous, too removed from the ground and so on. That was a contrast, in my mind, to the time when high-rise buildings were the solution for projects. Had the underlying thinking changed?

Goldberg: I don't think the underlying issues or the underlying thinking has changed at all. There are many books that have been written on the environment that is induced by high-rise planning and its destruction of family values and its destruction of a moral environment. It goes on and on. I mean, you scratch the issue and you have an argument presented indicating that it is contrary to the way people ought to live. On the other hand, as I pointed out at the time of the Raymond Hilliard houses, the ghettos that we were replacing were all low-rise, and the issue is not basically whether you build high-rise or low-rise, but whether your solution provides for family living. The unfortunate part of the Robert Taylor Homes was that it was planned for anonymity; it was planned for storing people. It was not planned for enhancing what might have been called the ethnic backgrounds or the cultural backgrounds or the anthropological tendencies or experiences that belong to these people whom they were trying to provide housing for. When we designed Raymond Hilliard we pointed out that the tendency toward criminal gangs was enhanced by these low-rise buildings where the houses could become targets for gang activity and where kids were being taxed to leave their housing and go to school. There was a street-crossing tax imposed by the gangs. We tried at that time, incidentally, to persuade the public housing officials in Washington to allow us to install schools at Raymond Hilliard, and they would not permit that. But we now have portable school buildings out there

in their place, and you can make your own judgments. Nevertheless, by providing small play areas up on the floors of the high-rise buildings, by providing areas where the mothers could gather and get some degree of supervision during the day—or grandmothers could gather and provide some supervision during the day of their children playing out there—we managed to reduce the amount of hazard and mischief that had occurred in similar instances in the Robert Taylor Homes. As I say, at Raymond Hilliard they haven't had that kind of experience. Now, in the high-rise that we were proposing at River City, we had made an effort to provide and really plan for children. We had a kind of rocket-ship elevator, for example, which was intended for the children to use, so that the conflicts between children and adults for vertical transportation would be at least minimized. We had playgrounds in the sky for them so that they had an area—they had their own turf. We had many, many devices for children—education for recognizing children as people. Now, this doesn't happen in the other high-rise efforts that have been made in public housing, and we are bewildered that the children respond as they do. In the middle-class housing on Lake Shore Drive—or upper middle-class housing; however you term it—crime has not been an issue among children because they have other areas of activity in their family life. Their families provide for a kind of recognition and a kind of activity that is not provided in the housing for the poor in high-rise areas.

Blum: Could it be that your projects have been victimized by the lack of just the kinds of things you are talking about that you provide for children? The existing projects have turned public opinion, perhaps the civil rights groups, against high-rise living for families, and you've just been caught in that web.

Goldberg: No, I suspect that there was a deal made between the Chicago 21 management and the city hall wherein we were blocked from proceeding with our project in exchange for a plan that the Chicago 21 undertook that would not disturb the voting balance to the extent that our plan would.

Blum: Well, it's a sad comment, in many ways. But a version of River City did get built.

Goldberg: A version of River City got built. It was an inadequate version to support the things that we had hoped to create. All I can say is that I hope we have planted the roots there for someone else ten, fifteen or twenty years from now to continue with and develop more completely for urban living.

Blum: Is this the first phase, or is this the only phase of River City?

Goldberg: This is the first phase. When I say first phase, I can only say "first" because there is adequate land for an adequate infrastructure for further development there.

Blum: Are there plans to develop it?

Goldberg: I have extensive plans, but whether someone will pick it up and move with it in the future remains to be seen.

Blum: Do you have to work your second phase, or your next phase, through the same city system as you did the first?

Goldberg: Well, that city system has been indicted.

Blum: I'm asking about the whole system in the city, does it then have to go through the same procedure?

Goldberg: No, because we have had it rezoned. We have had all the property rezoned from Harrison Street to 12th Street, and at least that stage of it has been accomplished. Now, whether that rezoning will encourage someone else to pick it up and run with it, I have no idea.

Blum: Would you want to be the person to do it?

Goldberg: I have too many battle scars right now to go back and try it all over again. I think it's going to take at least two or three years of political arrangement and rearrangement in order to get it done, and I think someone who is more interested in those political arrangements than I am at this moment would have to have the time to do it. Time, energy and connections.

Blum: You lived in River City for a while.

Goldberg: Yes, a couple of years.

Blum: You had planned a high-rise community, and what would you say you actually built, a mid-rise community?

Goldberg: Yes, although this is a comparative term because in St. Louis, for example, it's a high-rise community. A building eighteen stories high is a high-rise.

Blum: But for Chicago, maybe we measure a little differently.

Goldberg: Well, we have Marina City to gauge it by. That's sixty-five stories.

Blum: You've lived in River City. How did it work for you? Your family was not one with young children, I realize that, but how did it work for you—the location and the amenities and the space?

Goldberg: I also had my office there. In short, I tried to experience what I had recommended to others. I would rather quote Nancy, my wife, than quote my own opinions. Nancy felt as if it worked very well, and she really loved it with only one exception, and that was the management. She felt that the management simply had no understanding of the mixed facilities that we had provided. By mixed facilities I want to stress that beginning with Marina City I suddenly realized the power that architecture had to attract what, for lack of a better word, I would call a democratic mix of families—families of

varying incomes. At Marina City we had people who were making $6,000 a year in the year 1962 to more than $100,000 a year, living side by side, using the same elevators, using the same facilities. At River City we had apartments that were renting for $500 or $600 a month and apartments that were renting for more than $4,000 a month, also using the same elevators. Now, the management looked at this situation as needing some sort of inner government or inner control for managing 450 apartments without any reference as to the differences between the needs of people who paid $4,000 a month rent and people who paid $500 a month rent.

Blum: What are the differences in the needs in an apartment? I mean, everyone has heat and light and so on.

Goldberg: Everyone has heat and light, but everyone has a different sense of values as to what the environment of the apartment is. For example, the detail care of painting common spaces. The detail care of how you park your car. The detail of how you handle garbage or use your elevator system or how children are allowed to use common spaces. The management had little or no training in this regard, and it was very difficult, frequently, to deal with them on issues of privacy of living. I think that, as I may have mentioned earlier, when we walk into the common area that leads from the elevator to our apartment and we find that someone's idea of colors or fabrics or elevator materials have been changed for reasons of cuteness or for reasons of economy or for reasons of lack of training, these are very unpleasant experiences. One would not want to be identified with what one rubs up against.

Blum: You say it's poor management and I'm sure that is a broad umbrella. But do you think perhaps the wide range of people living there with families, and I suppose a family has needs regardless of where they fall in the economic spectrum, are somewhat different than if they are a family young without children? Do you think that is what contributed to this problem?

Goldberg: I think the problem came from several sources. One is that we lived there at the beginning of the rent-up of these. There was an urgency to rent them up as rapidly as possible, both economic as well as demonstrating that this new area which had opened up had an appeal. As a consequence, I think that families were not well screened who moved in there, and I think there was, at that time, a tendency to give a few months of occupancy without rent. As life goes on, one discovers that there are many lower-income families who have made a game out of renting on a one-year basis. They pay, perhaps, nine or ten months' rent for a one-year occupancy. Their furniture can be moved very readily because it is very simple furniture, and they continue to move from apartment house to apartment house with these deals. Now, they have less interest in the environment in which they become a tenant than people who have a longer term interest in these areas. So their conduct, the way in which they use common spaces, the maintenance of the common spaces when they became abused by this kind of tenancy, all became new problems that very few people have the experience to deal with. On the other hand, the governance of these apartments and the governance of these common spaces, in an effort to try to bring about some degree of environmental order, I suppose is a polite word for it, was extended to people who were unaccustomed to being told what to do. People who were accustomed to doormen handling their packages as they moved out of their cars were not about to be told that they couldn't leave their car in the driveway for the ten-minute interval that was required to carry the package upstairs. There was a management effort made to get some sort of communal gaiety or communal enjoyment of the facilities that were there, and there were frequent parties that were given for all the tenants in an effort to introduce tenants one to the other. But there were other tenants who felt as if this produced unpleasant noise or it attracted the kinds of people who they weren't accustomed to seeing around their living environment, and so one got conflicts in numerous ways induced by relatively inexperienced management. Now, I personally had provided some living quarters for some people who moved into River City from the suburbs, who returned to the city to live near the banking area and walk to work. In a sense they were planning-book tenants. They

correspond to all the theories, and they have remained there and like it. It has settled down. I think I was hypersensitive to things like this horrible couch which blocked off the view of the river, which caused us to move out in two weeks when we regarded that as the final blow to our sense of what we had hoped to find. We moved out in protest.

Blum: I think it's interesting that you say that people who moved from the suburbs to the city have remained. Have they remained, holding two houses, or just moved to the city?

Goldberg: No, they have moved to the city. I just have two examples of that. It does say something. Indeed, it may even say that I was hypersensitive to the lack of maintenance in the hallways, to the color schemes that they provided, to their ripping out the elevators to install some sort of commercial finishes which I wouldn't expect to find in a hospital environment. We managed to survive all of that, but the last straw was the couch—a thirty-foot couch.

Blum: Did John Macsai work with you to do the interiors, originally?

Goldberg: No, what John Macsai worked with me on was the supervision or the observation, we say, of the construction completion because the rules of the financing groups do not permit the architects who do the planning to do the observation in the event that architect also has a financial interest in the building. I did have a financial interest in the building at the outset.

Blum: So you needed someone else to do the observation.

Goldberg: John is a very competent person and I was very pleased that he accepted the offer to take on that kind of responsibility.

Blum: In spite of the fact that you're still battle scarred, is it possible for you to step back and be somewhat objective about River City and compare the success or failure, or nonsuccess, of River City and Marina City?

Goldberg: I was in a restaurant the other night where the waiter said to me, "Aren't you Bertrand Goldberg?" and I said yes. He said, "I live in Marina City. I've lived there for a number of years, and I can't tell you how happy it makes me to live there." Marina City had a newspaper, it has a community, it has people who have lived there ever since it was built who still greet me with a great deal of possessive pride. I realize that what happened at Marina City was a rather instant formation of community. Now, at River City the community-formation devices that we had anticipated have not been fully exploited because in the first instance there are too few people. There are only 450 families at River City as compared with almost 900 families—double that—at Marina City.

Blum: So it's really half, and some with children.

Goldberg: Right. The dimensions of River City should be contrasted with the dimensions of Marina City. River City is 700 feet long. Marina City consists of two high-rise buildings that have a concentrated core, and the entire length of Marina City is 300 feet. It has twice the population in half the dimension. The difference in density I think has a very distinct effect on the formation of community. In addition to that, the commercial life at River City has not been well developed, and I think remains to emerge in some fashion that is comparable to what we had anticipated at the beginning. We had seen the commercial areas at River City as providing jobs for the people who live above. We had seen it as providing high-tech offices for the Stock Exchange or the Board of Trade or for the banking groups that are just within two or three blocks. We had seen it providing, perhaps, advertising jobs. We had made drawings that are quite in contrast to what has been installed there and, of course, its growth as a kind of medical center, however attractive that is financially for the management, is not intended, really, to attract a very active community-forming group.

Blum: Did you have any idea that the commercial offices would attract outside

people? I realize you're talking about the medical facility, but just generally would there be retail shops to attract outside people, or did you really design the commercial space with the idea that it would service only those residents of the building?

Goldberg: We went further. In a very interesting fashion we developed as part of the planning a new form of commercial activity. I got the cooperation of Commonwealth Edison Company, I got the cooperation of Control Data Corporation and I had myself and my own company, of course. I'm trying to think. For a while we thought we had Illinois Bell Telephone, but that didn't work out. But at all events, we had a group of companies that had agreed to assure the financial establishment for several years of a business technology center. We considered that to be a remarkable gathering of foresighted businesses.

Blum: Would you describe it briefly?

[Tape 11: Side 2]

Goldberg: What we agreed to do was to supply offices installed for new business, and Control Data Corporation agreed to provide a business technology background for people who wished to start a new business with a new idea, but didn't know how to do it. In renting a space there at a very modest price, a new business entrepreneur could not only get space and stenographic and printing and all the bookkeeping and all the other things that he would need on a part-time basis, but he would also get business advice and conference with other people who were in the same position he was in. He would have access to any public legislation that gave business support. He would have immediate access to all of these things. He would also have business advice available as to how to conduct his own business so as to avoid failure.

Blum: It certainly seems like something like that would have had wide appeal. Did it?

Goldberg: It had wide appeal to everybody, including the federal government which gave River City a grant, but the grant was misused by the management.

Blum: When you talked about Marina City at length, you said that the more recent occurrences there—the break-up of the properties and so on—was something that you felt reflected on you and you should have perhaps foreseen the problem and protected against it. And now you talk about the poor management, or whatever, at River City. I wonder if it's possible to control all these things in the original plan.

Goldberg: It's possible to control them in the original plan. It's the secondary plan where the difficulty really arises. There are a number of things that I see for which I am at fault. One is that in conceiving these ideas which require business management, a corporation should be formed that will share those objectives. That corporation should be entrusted with the management right from the beginning so that there is no question about the continuity between concept and action. For example, we had a group from the University of Chicago called ARCH ready to move into River City. ARCH still is an effort made by the people involved at the University of Chicago, which has the management of the Argonne Laboratory. ARCH is devoted to creation of new business built on the patents that have been awarded to either Argonne or to the University of Chicago for various kinds of development. Now, in this country we are seeking development of, one might say very easily, new business, but it's new business based upon new ideas of technology and new ideas of scientific development and things of this description and category. ARCH is devoted to this. My planning was devoted to creating an environment that would be receptive to nurturing these kinds of things. It seemed to me to be rather an ideal labor pool that one would find in a middle-income housing development where people could walk down to work or take an elevator down to work and where there would be a kind of natural interest in observing the success of what formed a background for living; that is, the work that formed a background for living. Now, there is

nothing wrong with that idea, but it requires much more careful management than an architectural office with just an idea was capable of giving. I think to that extent I had a responsibility, and I failed to develop that aspect of it. I thought that just the planning of it and the business arrangements could be made to work. It required something more. It required, really, some mechanism that would create a working entity devoted and committed to this idea. That didn't happen. What we got was an ordinary real estate apartment management group in there to operate.

Blum: What is the status of the rental in the residential and the commercial space today?

Goldberg: The residential space is very successful. There is over 95 percent occupancy. That happened in the first year, decreased in the second year and went back in the third year with more careful screening of the apartments. The commercial has had some extent of growth, but it is yet to be celebrated.

Blum: Has the marina worked?

Goldberg: The marina has been a success, yes. That is a success.

Blum: River City is so spectacular when you drive by, and it just sort of appears. Does River City welcome non-residents to walk through? Is it possible to do that, or is it just for the tenants?

Goldberg: The management at River City has not learned how to deal with this problem. It's primarily for the tenants. There is the beautiful riverwalk. Even the commercial areas are interesting to see. The synergism, for example, between the medical installation on the subgrade area and the health club on the subgrade area—now, that was something that I personally had involved myself in putting together. It was a new idea, and I had meant that these two groups would work together. The health club committed itself to giving the medical areas financial support in exchange for which the medical areas

would help supervise the health care and health progress that was offered by the health club. There should have been more of that synergism involved in trying to bring the commercial interests together.

Blum: But it isn't the kind of commercial interest that would attract someone walking down the street a retail shop, a dress shop, a shirt shop?

Goldberg: No. There was no possibility to bring that on board for several reasons. One reason is that there were too few people in the first phase of the project. Four-hundred-and-fifty families cannot support the local business that would be generated by them. Secondly, the downtown area helped to contribute to the problem in the fact that the Loop area was becoming overbuilt in 1987. As early as 1987 rents in the Loop area were taking a drastic downturn, and the competition between River City offering space for $14 a square foot or the Loop offering space at $14 a square foot was a contest that River City couldn't win.

Blum: So in spite of your planning that was so far-reaching, River City is a very beautiful—a startlingly beautiful—building, but self-contained.

Goldberg: It remains largely self-contained. We had as a next phase planned to install parking for 4,000 automobiles subgrade, immediately adjacent to the first phase of the housing. That in itself would have attracted a great influx of people as a next development. As yet, due to the recession and due to, I think, bad planning, nothing has been done in the remaining eight acres to the north.

Blum: Who does the sculpture park belong to?

Goldberg: The sculpture park is gone.

Blum: Did that belong to River City?

Goldberg: It didn't belong to River City. It was borrowed by River City from the Chesapeake and Ohio Railroad interests—they call it CSX, which is the conglomerate much larger than the railroad itself—but the sculpture park was moved out as CSX planned to develop that space for office buildings.

Blum: I have read in some of the material on River City—and tell me if it's true—that your idea of this riverwalk came from your study of streets and buildings in Paris. Is that true?

Goldberg: That's in part true, yes. In the old quarters of Paris one has buildings roughly fifty to sixty feet high, and I went to Paris and looked and studied the width of the streets and what happened on the streets. Again, the failures to actively bring people into River City was a difference between its planning and its execution. In Paris, for example, at the ground floor you have the activity of shops and people walking. You don't have any activity now at River City on that base street. There are people who are going to and from elevators or who are entering the building, but I'm talking about commercial activity. Now, it was contemplated that these people who were going to be living up there would be able to see the activity at the lower level and to some extent participate in it, but there are too few people there.

Blum: Did you have the Parisian covered arcades in mind?

Goldberg: Oh, yes.

Blum: It is a spectacular feature, in spite of the fact that it lacks what you had in mind.

Goldberg: Well, we've gotten used to that kind of concept of long-term development from our Japanese friends, but I'm still American enough to contemplate a more rapid development between planning and execution than has occurred in either place.

Blum: You've spoken a lot about the disappointments that you have experienced regarding River City. Is there a measure of satisfaction for you in what does exist?

Goldberg: Yes, there is a measure of satisfaction in what exists, but I think the operative word is "measure." I mean, it's measured satisfaction. I would rather have the big hurrah.

Blum: Do you anticipate ever putting all of those ideas into an actual building or a project?

Goldberg: I never give up the contemplation that it may happen, but in each event I gather a little more experience as to what not to do and what to prepare for in order to make do what the plan involves. Perhaps we constrict the plan a little bit more and perhaps we add a little bit more to the execution of it, and we may reach a happy medium at some moment.

Blum: Have you become a prudent eternal optimist?

Goldberg: I don't think I'm an eternal optimist. I think I live the way most creative people live. I think every project is an invitation to carry one's experience and one's ideas a little bit further and to test them more completely before their execution.

Blum: In looking at your career, I would say you have primarily focused on residential and medical facilities, but you have something underway right now. That is Wilbur Wright Junior College. From what I could see from the road when I drove by, it's quite a large plant. I know that your experience with educational facilities goes back thirty years to the Joseph Brenneman School design.

Goldberg: And to Stony Brook University in New York.

Blum: Do you think of that more as an educational facility or a medical facility?

Goldberg: No, that's an educational facility.

Blum: Well, then, Wright Junior College is not so unique.

Goldberg: No. There were two million square feet at Stony Brook devoted primarily to education. Although the hospital facility there is basically a public service institution, it is used in today's medical education as a clinical education.

Blum: How does Wright College campus extend your ideas that maybe you had first executed at Stony Brook?

Goldberg: At Stony Brook we were involved with a number of things, and we published a series of studies that my office spent a great deal of time preparing. We spent almost a year in making studies that were connected with a major educational facility prior to the time we made the design. I think I've mentioned some of them in our discussions previously: the role of a college, for example, or a university because Stony Brook is a university. Stony Brook contains five or six colleges, and in its size of almost two million square feet it becomes a major public facility, so we studied a great many things before we ended with a solution that said we would build a container for other buildings. What you see on the exterior is really a container for many interior buildings that house educational groups. What we tried to do was to say that medical education was not a series of specialties alone, but it was a series of specialties that together and only together could become a health care educational facility. Unless one realized the comprehensive nature of this kind of activity, one could not acquire in today's world a basis for health care education. I think to a certain extent we carried that idea through at Wright College, but with major refinements. For example, when we started the development of Stony Brook, the computer as a tool of communication and education had first made its appearance. The year was 1964 roughly, and we were unaware of the refinements in the use of the computer. There were a lot

of ways of using the computer that were offered at that time. There were ideas of creating something comparable to little telephone booths all around the college or all around the school, where a student could simply walk into a telephone booth, drop his identification card in and get his lessons or record his studies; in other words, use that computer booth as a major learning resource. At Wright College we had not only had the kinds of explorations we went through at Stony Brook, but I also had a hands-on relationship with Control Data Corporation in Minneapolis and with their methods for teaching the uneducated by the use of the computer. Part of that was a kind of public program which they had offered to various cities in order to convert or to make it possible to take the poorly educated, impoverished groups and make them a part of a business economy. Part of it came from exposure at Control Data to the role of the computer in just a very broad educational approach using the Plato system which they developed together with, I believe, some Middle Eastern interests. I have seen enough use of the computer to give me some clues as to how to install the computer as an educational tool or as a planning device into a normal educational system of rooms and teachers, and I would say that this whole process is in a transitional mode. But we have designed buildings at Wright College that recognize this transitional mode and have anticipated future transition. Our Learning Resource building there I regard as being a very important planning device in this transition, and I have previously said that if there were any reason to diminish the size of Wright College, they could leave that one building and destroy the other three or never build the other three buildings around it, and they would still have an important school that could function for the purpose of community colleges. I would like to discuss the Learning Resource Center because I think it is an important device for an educational facility. What we put together in the Learning Resource building was a spatial plan which permitted the building on entrance to become a center that could operate for twenty-four hours a day, seven days a week, with four hundred computer terminals for learning. The organization of that space I'll go into in just another bit, but I'd like to get the totality of it in your mind. On the floors above that first floor, we built them as an atrium—as

floors surrounding an open space in the center of the building. The open space in the center of the building had, I think, three additional floors which were utilized for a library, so that if you were using the library you could look down on the computer areas and observe the computer operation—expose yourself to the computer operation—and suddenly one would have, I hope—I say "I hope" now instead of "it will happen"—the ability to look down and say that "the computer and the book I am reading are part of the same experience. I am communicating with someone else and I may be able to learn something from these experiences of communication."

Blum: Are you saying that these are connected in your mind—I mean, connected to the extent where the person reading the book is connected to the person using the computer—but rather that they each in their own way connect with their learning device, whether it's a book or a computer? Are they equivalent experiences?

Goldberg: Yes. These are parallel and simultaneous experiences and experiences that can be mutually observed so that if you are sitting at a computer terminal, you can look up and you can see the area where the books are.

Blum: The old-fashioned way of learning.

Goldberg: The old-fashioned way of talking to other people. Surrounding both the library and the computers we have arranged a donut, if you will, of faculty offices of each of the departments in the college. There are roughly 250 faculty offices, and perhaps seven or eight departments that have their offices there, for a one-on-one education so that this becomes a kind of tutorial education. Coming back to the computer area, we went around the country to see what arrangements have been made for installation of computers. It is my feeling that the computer, which is a rather lonely device if you aren't talking to someone, has been installed in a carrel, which in turn is a lonely device meant to isolate one student from the other. It's meant for personal education, but we still have the need, it seems to me, to allow for group

education even with the use of the computer. In the first floor arena of computers, we have installed about eight glass-enclosed rooms that each seat about thirty for that kind of group learning with computers. In addition to that, we have many islands of space where personalized education can be ongoing without any kind of supervision whatsoever, or where those islands are connected to a central island where a half-dozen computer heavies can assist in the first instance by wire network, or in the second instance by just being personally available to people who want to ask questions on where to get programs, how to use the programs and how to settle the difficulties that they are having with the programs. This whole arrangement is not only new, which has no virtue of its own, but it is a new way of using the computer; first of all in groups, secondly, for personalized education, and thirdly, in concert with a tutorial system with teachers. We look forward to a time when the teachers may be permitted to originate their own educational software, much as they would write a book. In turn, we look forward to interesting the faculty into the advent of the computer as an educational tool much as they recommend books. At the moment the computer is viewed as a competitor to the faculty.

Blum: If I am correct in perceiving what you have said, it seems that you're trying to set up an environment with a real spirit for learning, not only with traditional things like books, but computers and instructors.

Goldberg: Some of these are very ancient things. The one-on-one tutorial comes out of the old British system of tutors and students.

Blum: Do you envision a day when people will get a college education only from a machine?

Goldberg: I don't think that that moment is ever going to arrive. I think that education is a device that promotes communication, and communication in itself implies talking to someone else.

Blum: Many people think that they talk to their computer.

Goldberg: Well, yes—just as you talk to the book you are reading. You don't talk to the book quite as actively as you can talk to the computer, or be talked at quite as actively. I describe this as a transitional building, and I think that as a transition it will last for the next twenty-five, thirty-five years. What will happen beyond that in the development of software and technology remains to be seen, because, as you know, as we talk here today there are computer methods of just literally talking to your computer and being literally talked back to.

Blum: There are programs that actually have computer speech, and you can actually hear it. You don't only see it on the screen.

Goldberg: That's what I'm describing, yes. It appeals to another gateway to the brain.

Blum: Is Wright College a two- or a four-year college?

Goldberg: It's a two-year college, but in the original planning of it, it was intended to encourage the passage of students from the two-year college to a continued education in a four-year college of some sort. The present attitude of the Chicago City College is a little fuzzy. I think they are now talking about the fact that these city colleges have a greater purpose as, one might say, trade schools than they have as education in humanism or in the sciences. But even in the sciences they look upon them as being sources for providing income and providing jobs.

Blum: You have described the Learning Resource Center. What are the other four?

Goldberg: The Chicago City College has a rule that all buildings provided for them will be designed on a five-foot-by-five-foot module. That's a rectilinear module, so that even the Learning Resource Center, although it's a pyramidal module, is based upon the five-foot-by-five-foot rectilinear form. The other four

buildings have different purposes. One is a central reception building that connects to every building. You come to that central building, and from that central building you can get to any of the other four buildings under sheltered conditions, or you can be directed or you can meet people or you can see what the events are in all four of the buildings. There is another building that we call the omni building, and by omni I meant the everything building. It has the gymnasium, it has the exercise areas, it has the theater, it has a vast gymnasium in its interior, it has the music department that gives concerts, and I've forgotten if it has anything further than that. That seems to be enough. There is another building that we call the science building, and that is a building which contains the laboratories of all descriptions and which contains the physical sciences—electronics, chemistry, biology. It also contains the student facilities such as a restaurant and nursing, and the student newspapers and the student organizations, the bookshop, and I've forgotten what else it contains. But anyhow, those are the main functions of that science building. Then there is what we call the liberal arts building, and that contains the education of courses that we normally say belong to humanism. It also contains the faculty administration of running the entire college. In the liberal arts building and in the science building, the classrooms are very classical classrooms. They are thirty-by-thirty or forty-by-forty or fifty-by-fifty—whatever they are—and although their arrangements are perhaps a little unique, these are theaters of teaching and they are linked with the teachers' union's rules for the size of the classroom, the frequency of the classes and so on and so on. They are much more traditional. Now, all of these buildings are connected by bridges so that at the second and the third floor you may walk from one building to another without retracing your steps to a central building. In that way you can communicate between the science building and the liberal arts building or between the science building and the Learning Resource Center.

Blum: You have spoken about your problems getting approval from city administrations and the bureaucracy that exists. What was the administration that you had to go to to get approval?

Goldberg: Chicago city college system.

Blum: What was the task of getting approval?

Goldberg: We didn't get approval. We developed this jointly.

Blum: Were you called in and invited to do it?

Goldberg: We were given the commission to design the college, and we were further privileged to sit with the various college authorities for a period of about three to four months going through the program for the college, room by room.

Blum: Were you the only architectural firm invited to do this?

Goldberg: Yes. Then in addition to that, because we were afraid that we were getting into a typical bureaucratic solution that would come from some central overseer located in some remote building downtown, our office hired a sociologist out of our own resources to survey the faculty and the students at Wright College, and we wrote a book on what they had to say. We used both the downtown program and the research that we did to give us a better concept of what the college would be about.

[Tape 12: Side 1]

Blum: In your opinion, from your knowledge, is there an essential difference between what you did for Wright College, Stony Brook and other campus-type institutions?

Goldberg: Yes. I think there is a considerable difference in concept. Stony Brook is basically a university. It gives graduate degrees, it is interested in five or six of the specialized aspects of the health care field, and it has a potential of a

vast peak population. It has a 500- or 600-bed hospital, I've forgotten which. It takes in tons and tons of material every day and processes them, either as food or as educational material or, conceivably, just as maintenance material. Wright College, in contrast to that, has not made up its mind whether it is a trade school or the first portion of an educational process that deals substantially in the humanities. We tried to make an issue of that difference. Once again we hired the former dean of education from Northwestern University to assist us in determining the path that education should take at Wright College. He and Dr. Salvatore Rotella each proposed their ideas, and obviously the differences in them could not be determined by us as architects. We could only illuminate those ideas and attempt to get decisions on those ideas from Dr. Rotella and his staff as to the future intent of Wright College in a community environment. I think the issue was determined when Dr. Rotella, in desperation and to some extent in frustration from the continued questioning, drew on the back of an envelope a schematic arrangement of the way the college should pursue its education. Basically the organization of a science building, a humanities building and a learning resource center, with an allocation of space for community affairs in the omni building, was the illustration of Dr. Rotella's concepts of the way the educational system should function. Now, we could not have illustrated the ideas of our consultant in that fashion because his was a more abstract attitude toward the purpose of education. Dr. Rotella has visualized—had visualized, because he is no longer with the Chicago City Colleges. Dr. Rotella had a long-term viewpoint toward the city colleges that involved a concept of continuing education. The Chicago City College system was only intended, in his opinion, to prepare students in a more general way for a continuing education in other universities on a road toward specialization. Now, it's fairly easy to say that early specialization is a form of preparation for employment, but almost everything is preparation for employment. Even learning the English language is a form of seeking employment or preparing for employment. It's an extremely difficult definition to pin down, and had we been able to pin it down, I think the shape and disposition of sizes and functions of the college could have or would have been somewhat more

responsive to a more clearly developed program. But to come back to your question, which I think I've been sort of dancing around, I believe you are looking at the architectural solutions. I think the architectural solutions for the different specializations at Stony Brook were more intimately woven together. It was a purposeful determination on our part not to allow medical education to become a divisive exercise where each specialization would have its own building in a kind of ideal way for the specialists so that they could specialize as much as they wished to, but certainly the opportunity to enjoy the investigation and philosophy and participation in the community of the other specializations should become a synergism. That was not so easily done at Wright College where we separated the sciences from the humanities.

Blum: Does your plan for Wilbur Wright College provide for the possibility—you mentioned a trade school—to either expand or convert the existing facilities to accommodate this need?

Goldberg: I think the direct answer to your question is yes. The yard-goods buildings really have very little predetermined character. They have an excellent system of corridors that bind the rooms together in some fashion of community formation. They can be changed readily in that respect—their use, that is, can be changed readily. They have a relationship to each other, which was the best we could do under those conditions. What I am referring to now is the fact that you can go from a third-floor laboratory to a second-floor study of the Bible. There are also intimate connections with computerized education, with audio-visual education, with libraries and, particularly, with 250 members of the faculty, if they will stay in the school in their offices, which is what we hope the teachers will find to be an attractive place.

Blum: When will this be completed?

Goldberg: It's scheduled for September of this year [1992], but there are a number of

factors that are still undecided that will cause some concern and, conceivably, even some delay.

Blum: We have spoken about many, many highlights of your past sixty years in architecture, but we haven't spoken about—and I know some have been published and I'm sure many have not been published—your unbuilt projects, one of which was the ABC project. It is a very tall, round tower, and it was fairly well published for an unbuilt project. Will you speak about that for just a minute?

Goldberg: Surely. The American Broadcasting Company wanted to have an office building in New York, and they hired us to develop one for them. That was prior to some financial difficulties they got into which caused an end to that project. They had conceptualized an office building with large, open floors where the executives would have the offices on the exterior windows, and the secretaries and the file cabinets would all be on the interior. In our perhaps overstudied way, we began to pry into their business organization, and we discovered that the way they actually operated was quite different from the way they thought they operated. They were actually a series of little companies, each with its own special way of making money and functioning in a communications system. They had, I think, 1,300 or 1,400 employees, but out of all of that, only two divisions had more than 15 employees. Those were the bookkeepers and the lawyers.

Blum: Did they consider themselves separate little companies?

Goldberg: No, they didn't. They considered themselves one big company, but these little companies had nothing to do with the fact they were a big company. They each had a special activity with a boss and with a targeted earning capacity, and they contributed to the major overall effort in that fashion, but not with each other. They made records, they made entertainment films, they made all kinds of different things that had to do in general with communication or entertainment, if you want to be so broad. But, as I say, as

a company, even the chief executive branch of the company was a very small cluster of people. We came up with a program that clustered several of these related companies, first together with their own autonomous space, relating the executive group to what you might call the workers. We knitted those together in these spaces. Then on one floor we brought these spaces together around a center very much as we did in the senior housing at Raymond Hilliard where we had a communal space in the center, but where each family could have its own individual family activity, quite privately. We did relatively the same thing in the ABC building. We had a communal space in the center where new joint enterprises that involved more than one division could be undertaken, but each division then was around the exterior of the building and could have its own functional activity—its own autonomy.

Blum: When I looked at what was published, am I correct to remember that the executives were in inner offices and secretaries and support people had the outer offices, which would mean the outside of the building with windows?

Goldberg: No, the secretaries had a division, because we had more perimeter than the conventional massive office building floor. The ratio of window to interior area was much greater than it was in a conventional building, and so we had the ability to give the secretarial staff a windowed, daylighted area of their own. They were adjacent to the executives rather than in front of the executives, and in the center you had this opportunity to bring all of these peripheral autonomies together for joint ventures. We hired Booz, Allen and Hamilton, which was an office management company, to give us a projected structure for organizing the ABC group, and we had junior executives and we had senior executives and we had senior senior executives and then, of course, we had support staff. Now, the support staff invariably had a fairly sizable area of their own, and immediately adjacent to them, laterally, they then contacted on either side of the support staff. They were on either flank. They could make contact with either junior executives or senior executives, or in the event of the senior senior executives, they had a much larger space and conference room and things of that sort. That's the way that was arranged.

Blum: I was just concerned that the executives didn't have any windows in their offices.

Goldberg: Well, I want to say to you that in our adventure in organizing the ABC building, we discovered that many executives who insist upon corner offices with lots of windows fail to use them, and in fact screen themselves from the disruptions and distractions of an outer scene. They are introspective people. I am not trying to generalize; I just say many of them have highly concentrated environments of conference, and they do not like to have the distractions. They insist upon the windows and then proceed to either use louvers or curtains or one thing or another to cut themselves off from the very windows that gave them their marked authority.

Blum: I always thought that a window with a view was a prestigious office.

Goldberg: Indeed it is a prestigious office, it is. Along with a private bathroom, it defines a senior executive. But the use of the space is an intriguing experience in human performance. I'm not trying to say that either one is an invariable condition, but I am trying to make the observation that the corner window syndrome, which has governed the design of many of the buildings in our own Loop development, is probably an exhibition of executive authority at the rental level—at the moment they are deciding to rent a space—but in the execution of the use of the space, frequently it is curtained off or louvered off or whatever, either because of sun angles, which are very disruptive, or because of the fact that the executive operates in a kind of cave rather than in a kind of power environment which makes him feel as if all the buildings that he sees out there are subject to his executive authority.

Blum: Is this something you discovered when you did your study of the company?

Goldberg: Yes.

Blum: How did the company respond to your findings?

Goldberg: With interest. I exhibited our solution to their board, and they were extremely interested in the proposal.

Blum: Did some of your findings surprise them?

Goldberg: No, I think they were more curious and more interested and relatively open-minded to what we had shown them about their own company, or what we had discovered about the organization of their own company. They called upon us again to possibly do a project out in San Francisco, but we never participated in that. So, they must have felt we had something to offer.

Blum: How did you come to make this design in the first place for ABC?

Goldberg: They had seen our work, and in Marina City we had designed a broadcasting studio. They felt that we could give them certainly an interesting solution, if not a well thought out solution, but an interesting solution in New York on their property.

Blum: It certainly was an interesting solution. Had it been built it would have been quite a signature building.

Goldberg: It would have been not only a signature building, but, as I pointed out to them, in contrast to the superficial elegance of the bronzes and the building palaces that are characteristic of the New York environment, we achieved our elegance in the concept of the way the space ought to be arranged, in the structure of the building and also in the way the building participated in the New York environment. Now, we also asked Booz, Allen and Hamilton to compare that building with Eero Saarinen's building for CBS. We did that because we were afraid that the form of the building would look less efficient than the form of a rectilinear building such as Saarinen had done with the modular system. They actually discovered that our building had a ten

percent greater efficiency in the use of the floors than the Saarinen solution. In other words, they had more corridor space than we had and that we offered ten percent more rentable space in the building than the Saarinen building.

Blum: Is that often true with a circular building, or was it just true in this design?

Goldberg: I don't know whether you can make this kind of generalization. I think if you had a building without any corridors of any description, that would achieve the greatest efficiency in terms of rentable space. But you have to analyze each building. I think the kinds of buildings we design, again using the word circular, or rather geocentric, it isn't perhaps true. But these forms that we have initiated in these buildings are quite efficient, and really all we were seeking was to dispel the illusion that they were wasteful in the way they handled space. Without question we had more exterior perimeter in relationship to the square footage of the building than the Saarinen building, for example. I don't know how one would evaluate the efficiency of a building in that fashion. If you were inclined to be Teutonic in your attitudes toward employees, as we visualize the old nineteenth century office structure with the typists all working diligently all day long without any exterior diversions of any sort, then having more interior space for the number of windows that you have would be a more desirable way to have an office building. We don't waste space on letting people look outside. Conversely, if you are trying to maintain a rather high degree of efficiency and avoid the stress of boredom, you might have opportunity for more exterior exposure, or if you are talking about a scientist who needs very little diversion and who wants a high degree of protection from diversion, you have a different attitude toward analyzing the efficiency of a building. At Stony Brook, for example, in the basic science building we have very few windows in relationship to the experimentalist spaces. We had access to windows immediately outside of those offices or those laboratories, so that if you wished to get some relief from the extreme concentration of work on the interior, you could obtain that very readily just by walking out your door.

Blum: It's interesting you point out the difference between, let's say, conditions for secretaries fifty years ago and conditions for support staffs today. Was your solution a response to that more democratic work place, perhaps?

Goldberg: Not alone a more democratic work place, but I think we anticipated—although we were certainly sensitive to the increasing role of the computer, the function of the computer and its operation as an information device was certainly not available at that time as fully as it is today. I think we anticipated, however—uniquely—that the office buildings would be places for communication and for business thinking rather than for shuffling paper and for administration as it was conceived in the earlier days of this century.

Blum: It is such a good idea and such a startling visual solution. Why didn't ABC build that?

Goldberg: ABC had an enormous financial problem and they decided not to build anything. They went into a building on Third Avenue or on Seventh Avenue—I forget which.

Blum: A traditional building?

Goldberg: A traditional building that they shared with somebody else. I mean, they became a tenant rather than an owner. Their property was that beautiful block from, I think it was Sixty-seventh Street between Central Park West and—I forget which street it was. But at all events, it was a beautiful block that they owned, and it was only recently that they allowed somebody else to develop it. They never developed it themselves.

Blum: Another of your unbuilt projects you've spoken about, the Menninger Clinic, and another one that I noticed in the literature was the San Diego Community Theater. These were all projects in the sixties. I'm sure there

were many, many others that I don't know about. Of what value do you think the unbuilt projects have for you, in spite of the disappointment that they were not built? Do they have a value?

Goldberg: They have almost the same value, but not the testing of construction, as the constructed projects because in each case the development of a design was not just the sketch on the back of an envelope or a kind of fanciful dream of a short-time work. We approached each of these projects, really, with the serious intent of constructing the project, and we investigated each of these projects with enormous diligence and with a great deal of intellectual speculation as to the variations and solutions that could have been suggested. I think each of these was a carefully thought out project for the development of the client, and the intellectual pleasures and problems and struggles were all there as if the project had been constructed.

Blum: It strikes me that your research for each project is so comprehensive, so in depth, and that you go into so many related areas to give you insight into what you are focusing on. Is this unusual among architects?

Goldberg: It's unusual among some architects. I think what you are pointing to is the difference between regarding architecture as the design of art objects; as pure design in a sense unrelated to the way in which the building will be used. Its the difference between looking at architecture as an art object, as a three-dimensional painting, as a convenient exploration for an art critic, and regarding architecture as a kind of sociological art form that participates in the development of the community, that participates in the further development of the—I hate to use the word functional because it's a kind of throwback to another period—but what I have described to you are the designs which come out of a wedding between the space as used and the people who use the space. In a sense, the building is a comment, a statement, a mirror, of the way each person in that building will reach out and either surround himself with that space or touch the space or remodel the space. It's almost viewing each person in that building as someone who will re-model

that building. I don't see buildings being divorced from the people inside the buildings or outside the buildings even. Everybody hugs the building in some form. It's a sensuous kind of experience, and that's the difference between what I have been describing and sitting in a class of shades and shadows and examining the proportions of Greek columns or window sizes.

Blum: And yet your buildings, from purely a design standpoint, are really striking.

Goldberg: Those designs come quite readily out of the rather deep consideration of what will happen inside.

Blum: Throughout our sessions, often you referred to the computer. What role does the computer play in your research, your design process, today?

Goldberg: Much less today than it used to. We started work with the computer in about 1964. There was a national effort at Woods' Hole [Massachusetts] to create an urban design. It was after Kennedy had been killed and Johnson took over. I think the year was 1964. It was a very heady experience for me. There were about forty or fifty of us who were commissioned to provide the government with a program for rebuilding cities, and instead of its emerging as a physical planning program, it emerged as a kind of social program with employment opportunities of various sorts and educational opportunities of various sorts. But it started out as a physical planning program. I was exposed at that time to some very heady experiences in contacts with thinkers from university environments—creative thinkers and, you might call them, scientific philosophers in a sense. It suddenly occurred to me that the computer was not just another kind of super typewriter or a super adding machine, but it was a new way of handling information. "Handling," that's the wrong word for it—you don't "handle" information. A new way of manipulating information, perhaps—again, that manual context of the word manipulate. But the information would never be the same nor would our cognizance of information ever be the same. In 1968 our architectural company took two architects and we made them officers of a computer corporation. We called it

Computer Service, Inc., and it is with us until today.

Blum: Is it one of your companies?

Goldberg: Yes, but it's just part of our office, and we use it for various things. In those years we used it to do work for *Time* and *Life* and Montgomery Ward and the Board of Trade. They reached out to do all kinds of development of software. We had eight programmers, I think, and we had a big mainframe. We tried to find out how to use it for architecture while trying to use it at the same time for other people. The only way we could afford those resources was by broadening its use. We did many things with a computer in architecture and engineering. However, after many years and literally more than a million dollars spent for the development of software for our own use, we came to the conclusion that our heads were really better computers and that we would use the computer only up to the point where it replaced human labor but not humanistically developed ideas. It was a trap—a very attractive, seductive trap—to believe that we could put problems into the computer and get solutions from the computer which hadn't previously existed in our heads. In other words, the solutions were mirrors of our own conceptualization. I was bitterly critical of the things that Skidmore was providing in deriving city-planning concepts from the computer. The computer can handle information much more readily than we can but, for example, we never could have designed the Prentice Hospital in time to use the information without having a computer. We never could have produced that design for which we were given an award without the computer, which accelerated our calculations from a period of six months to about two weeks. With ordinary effort, it would have taken about six months to analyze the stresses in that building to a point where we were satisfied and were comfortable. But we could do it within two weeks, and we could use the information, therefore, in order to allow somebody else to make a decision of saying "go ahead with it." We view the computer today, really, as a pyramid—not the computer, but we view our labor in a kind of pyramidal form where all of the muscular effort of drafting and compiling information

on drawings so that a major building can be built is at the base. At the top is the design inspiration, the creative work, the philosophical decisions that filter down through this base and finally you get a set of drawings at the bottom. But the ideas come at the top, and they are very small. Somebody said the world is very small at the top.

Blum: The head is at the top. With your fascination with the computer, beginning as far back at the sixties, was there a particular project or projects that were designed during that time when you were fascinated, and before having come to the conclusion you just reported?

[Tape 12: Side 2]

Goldberg: The issue of energy was emerging as an issue of considerable importance in the design of buildings. Regarding the State of Illinois building here in Chicago, for example—that enormous, glass, non-sensical structure that launched Helmut Jahn. That structure was originally described as an energy-conservation structure. The computer prevented us from making statements like that. We knew better because we could calculate the energy much more precisely by the hour, by the minute, by the season, and indeed we wrote those programs for ourselves. We used some of the astronomical programs and the meteorological programs that the United States government had authorized and built them into our machines. We knew quite precisely what the effect of such designs would have been upon energy conservation. Now, we went further and we examined the real application of those words that are used, like cogeneration, where we could have generators in our major buildings and use the heat in some fashion and use the electrical energy in another fashion. We examined that at Harvard. We compiled two major books on the study of energy at Harvard in the medical community, and we proposed a design that, of course, was another unbuilt thing. But we used the computer in that fashion. We had programs that would prevent us from designing doors that would come into conflict with columns or structures as they swung open, for example. We designed programs that would draw the

structure of a building and that would not allow the lines to join each other into a cohesive structure if there were an error. We used the computer to control the enormous relationships—by enormous I mean a quantity thing—the enormous quantity of relationships between rooms in major projects. I think there were several thousand rooms, for example, at Stony Brook—and to link not only the temperatures of those rooms and the temperature requirements of each of those rooms, because some of them had internal activities that created a different kind of an environment, but such simple things as hardware relationships or the finishes between floors or the colors or things of that sort. If you have a lot of human effort going into these things and somebody goes to the bathroom and comes back and forgets where he was and you have thousands of rooms to deal with, the possibility of human error is enormous. We used the computer in many, many ways, and we had many programs for which there still are no comparable replacements. We developed a new language for writing specifications. We eliminated adjectives from our vocabulary, from our lexicon, and we had a system that triggered danger signals if certain events came up so that people removed from our office program could be advised. A lawyer, for example, could be advised to get insurance for our client if we were dynamiting a foundation. We used the computer quantitatively, one might say, and we had an enormous amount of programs to allow that to happen.

Blum: Are drawings still made by hand in your office or by computer?

Goldberg: We can make them either way.

Blum: Which do you prefer? What do you usually do today?

Goldberg: We did Wright College by computer. It was extremely expensive, both in terms of manpower as well as in terms of—the computer can be used advantageously for doing certain things, but if ideas are changed in a process of development, the computer is a very unhandy device to use.

Blum: Does that often happen, that ideas change as the process develops?

Goldberg: I'm not sure that this happens in newer generations of architects, but in our generation of architects the freedom which one had as he went along to develop his ideas and to change his ideas as one saw them emerge on a sheet of paper, that freedom became part of the process. You didn't think about it. You could say, "Let's move that door from the left side of the room to the right side of the room," for example. Now with the computer, that requires an examination of a special set of drawings that has electrical concerns, another set of drawings that has hardware concerns and it goes on and on. The freedom to make change is considerably circumscribed and even eliminated by the economical use of the computer.

Blum: Are students today in architecture school being trained on the computer?

Goldberg: I would believe so. They certainly are more computer-experienced than anyone who is past the age of thirty or forty today. They come to us trained on the computer. There is a semantic experience between the head and the fingers that hold the pencil. There is a semantic experience that grows up in the architectural history of, I would say, any generation past the age of forty or fifty today.

Blum: Does that produce a different kind of attitude towards architecture or the creative process in architecture?

Goldberg: I find it to be quite different. Now, had I been brought up to use a computer instead of a pencil, I might have seen the computer as another tool to enable me to think more quickly. But at this moment I find the use of a computer imposes limits on creativity. I've had this discussion with the people who not only sell but develop computer programs for architecture, and they admit to some limitations that the computer imposes. Nevertheless, I would say that in the development of a major project with more than several hundred rooms, I would never put it onto a hand-drawn system if I could avoid it. I

would use the computer because the computer imposes disciplines in the control of information that are extremely important.

Blum: As you look back over your career, can you identify some project that presented the greatest challenge to you?

Goldberg: The ones that were the most inadequately thought out. The ones that create the greatest struggles are the ones where the ideas really aren't very good to begin with. If a project is well thought out, everything flows. If it's well inspired, if everything came together, if there is an imposition of some kind of idea which doesn't fit the project, then from that point on the details don't work well. The functions don't work well, nothing works well and you have to manipulate, manipulate, and if you have, really, the courage to do it, you throw it away and start all over.

Blum: What has worked smoothly—well, the best?

Goldberg: Marina City took a week.

Blum: Is time a gauge?

Goldberg: It's only a measure of how long. If the ideas flow, then wow, everything falls into place. That's all it took.

Blum: I'd like to quote something Ross Miller said in an article he wrote about you. He said you are "one of the last of the vanishing breed of architects that saw your mission to rebuild the world," and a little further on he went on to say, "to counteract alienation, isolation in society, and to bring people together" was your goal. Do you think you've achieved a measure of that? Maybe there are two questions. Do you consider yourself one of the vanishing breed?

Goldberg: I hope I am not part of a breed that is vanishing, particularly in that respect. I think that would be very depressing.

Blum: Has your mission been to rebuild the world?

Goldberg: Well, to rebuild the world, I think that that may be just a measure of ego. It may also be a measure of mission. Certainly I think that any kind of artistic effort involves a devotion to the end. It's like love. There is nothing that you withhold from it. You give. You don't measure what you give. You give everything that there is to give, and rebuilding the world would not be too much to give. So far as bringing community together, I feel the same way about it. I think that that, however, is a kind of secondary ripple effect of wanting to rebuild the world. If you are an architect in the true sense of the word, you recognize what needs rebuilding, and at our time as you pick up a newspaper, as you talk to people or as you see the disenfranchisement of people and as we become more aware of what could be, which is a blessing certainly of this century—an awareness of the impossible. That word "impossible" has very different meanings for us than it had for a generation before us. As you become aware of what the world could be, I think that one's mission changes, and if this awareness which I've just been describing, if this love, if this awareness is disappearing, then that's a fault of our schools and a fault of the people that go to our schools.

Blum: Do you think it is disappearing?

Goldberg: I don't think it's disappearing, but I think that our students' lack of awareness is because of teaching methods, as I frequently experience in the speeches I make at schools—whenever I make speeches at schools, and I told you I don't make so many speeches at schools, but the ones I make are just as educational for me as I hope they are for the kids who listen. I find that they're full of beans at these schools. The younger architects want what I am describing. They want to participate in what I am describing. I don't consider them to be vanishing if they can understand their role. I think they feel this subconsciously. I had a conversation with a young six-year-old child a few days ago. It was just a ten- or fifteen-minute conversation with a child who

came to visit my office with a parent. We started to talk about the word "nothing," and I was sort of interested to see if that six-year-old child understood "nothing." She understood it perfectly. She understood it to be that "nothing" was "without limits." Nothing was to be without a limit. I mean, if you had nothing, it was infinite. It made me feel so very good because the younger people in the world are the people who really are architects. It isn't until they get to be a little older that we begin to close them in and deprive them of what it means to be an architect. I think younger people are all architects, so far as I'm concerned.

Blum: And how do you define "architect" here?

Goldberg: They want to remake the world. They can do anything. Conversely, it means that the best architects are perhaps those who retain their childishness. There is a certain amount of innocence involved with this, which I would hate to acknowledge but which I think you've implied—the possibility that as I have learned to shoot myself in the foot, I have perhaps curtailed my activities.

Blum: I used the phrase "eternal optimist," because it seems in project after project you've had this hope and dream, and not all have turned out quite the way you envisioned them.

Goldberg: No.

Blum: But you have been called—and I'm not the only one that feels this way about you and your work—you have been called by critics and many writers as a utopian. Now, maybe that's even a stronger and broader view of you.

Goldberg: I don't like the word utopian. A utopian involves a certain kind of—if you remember that Frank Lloyd Wright phrase Usonian instead of utopian. There is always the struggle between the dream and the reality, and the dream is looked upon at various times as being representative of an impracticality and representative of an impossibility and representative of a certain kind of

poetic unfulfillment. I think that the gap in my life is not the gap between dreams and reality, but in the inability to make the achievement follow the intended application of effort or use or whatever. Architecture continues to see its art form, its building, its space utilized in a certain fashion, and there is a moment when the architect stops. He drops his hands at his side and he says, "Now use it. It's yours." In a sense, if there is a new kind of use, it has to be used by people who understand how to use what is there, and that's a new experience that comes either from time or—that's why we say, well, our results have to be in a shorter time span than they are in other countries. Mies said, "I will teach people how to live in my buildings." Maybe that's what he learned, that he had to teach people to live in his buildings. Maybe that's what I haven't learned, that I have to teach people to live my buildings, because I felt and still feel as if people will learn how to use these buildings quite naturally, and that the buildings will induce people to utilize them in a good way.

Blum: If that is true, if your architecture has to be so strong, so directive, if the design has to be that way in order to help to force—and that's too strong a word—but to inform people how to live in these spaces, would you be delivering a different message in your building to those people than, say, Mies did in his?

Goldberg: I hope I have delivered a clearer message in my buildings than the more rigid form of architecture—the more rectilinear, the form of a spatial imposition—imposed upon those people. I regret the concepts that rectilinear architecture extrapolated into rectilinear streets, extrapolated into what Pete Seeger called "ticky tacky little boxes," I hope that what my architecture has done is allowed enough freedom, enough creative potential from the people who are using my buildings to develop their own architecture, to develop their own activity, their own patterns of living, their own exploration of how to use space for living. I think that I have not been as aware as I should have been to clarify the message of use. Taking Marina City as a typical example of the most radical change of spatial form that could be handed over to people

who are really not educated in how to use a space differently. Marina City has many, many—the waiter the other evening who said he has lived there happily for many years. How could he live happily in a space that was not a box? This was a new space. There was no experience, but the formation of the space induced him, invited him, to find a way to live in it that was quite pleasant for him. That message has come to me many, many times. That message has come to me also from the Prentice Hospital where women give birth to babies and where fathers see their babies and their wives for the first time after the event of birth, and that message also has come to me from those spaces. At Raymond Hilliard it has come to me that that has been certainly not a great place to be poor, but poverty has not been as much a burden in living at Raymond Hilliard as elsewhere. Now, how much time it will take people to learn how to live in the office building at Marina City instead of the apartment building is a question. Certain the technology is there, the spaces to develop are there. The building stands empty at this moment due to bankruptcy and various other things. River City has had the same successful experience in the apartments and a very poor experience in the commercial aspect. Why? Because I think that I don't have to teach them how to use that commercial space, but they have to learn how to bring housing and office work together and use the tools that are in the design of that commercial space. I think the inadequacies of the lack of managerial experience is what interferes with architectural innovation.

Blum: Is there a way architects can help people learn?

Goldberg: It might be that what they ought to do is what Detroit does when they deliver an automobile. They have a manual that says this is the way you lock the doors and this is the way you turn on the lights. This would be a different kind of manual, but it would be a manual that would explain how you use the building, how you use the spaces. "You haven't seen this kind of space before, and you haven't had this kind of a relationship with other spaces nearby before, and this is, not how you turn on the heat, but this is how you use the corridors and how you use the spaces that we have given you."

Blum: Have you thought of this seriously?

Goldberg: Yes, I have thought of it.

Blum: Have you done it?

Goldberg: No.

Blum: Do you think it would be talking down to people if you did it, or people would receive it in that way? I mean, it is sort of sensitive.

Goldberg: Yes. You know, people don't mind being told how to use a Cuisinart or what recipes to use in your microwave, but I think there is a possibility of people saying, "I don't want a building where I have to have a manual to teach me how to use it."

Blum: Do you have a dream project?

Goldberg: Yes.

Blum: What is it?

Goldberg: To finish River City.

Blum: Does that seem impossible?

Goldberg: It seems like an impossible dream.

Blum: This oral history will be available for use by researchers when it's finished. It will be in Ryerson Library at the Art Institute. This document, your own story in your own words, will be used by researchers and scholars and whoever else wants information about you or your projects or your ideas.

Where would they go for more information, other than to the available literature?

Goldberg: I talked to Michel Ragon at the time he put together that book with Ante Glibota about my architecture. *Goldberg On the City,* they finally called it. I think there was a great deal of gut-spilling and introspection in the development of that book. I think Michel Ragon is a pretty good—I don't like to use the word critic—but I think he is a good thinker about the meaning of information, if you want it.

Blum: That's quite a good book. It certainly helps someone to understand you and your architecture.

Goldberg: Yes. I might comment that you have been a very empathetic director of this conversation, and you have managed to trigger all the introspective responses that I was capable of giving.

Blum: I must respond to you to say that I've read whatever I have been able to find—and I found quite a big stack of literature—but I think talking to you is a very different experience than reading about you. It just sort of comes out, and your ideas are really remarkable.

Goldberg: Well, that I have no consciousness of.

Blum: Are all your drawings in your office? I think the Art Institute has one or two in their collection.

Goldberg: I have a warehouse, and I don't know what drawings went in the warehouse. A great batch of drawings were lost in a fire where they were stored some years ago. I just have tubes upon tubes upon tubes of drawings, but I have never archived, if there is such a word, my drawings in a historical sense. Actually, I have never saved my early sketches on a project. I regard those as being waste paper.

Blum: That's too bad. Maybe years ago architects or artists or so many creative people simply didn't consider what they did museum worthy or collectable. I'm not only talking about drawings, I'm talking about papers as well—records and things of this sort. But today is different. We have a more archival sense. [In 2001 the Goldberg Archive was placed with the Department of Architecture and the Ryerson and Burnham Archives at The Art Institute of Chicago.]

Goldberg: Yes. Alfred Caldwell, for example, I gather just from reports of his conversation, went out to see this house that I'm restoring that I designed fifty years ago, and his comments made me quite happy. But he said he simply hadn't been aware that such a building existed. It had never been photographed, of course, but the spatial content of the building and the way in which the spaces moved around the family life were quite impressive to Caldwell, and I was very pleased.

Blum: Why did he go out to see it?

Goldberg: Because the owner, upon my recommendations, has asked Caldwell to help him with the landscaping—to restore the landscaping.

Blum: We have talked about many, many things that seemed important to me to ask about. Is there something we haven't talked about that's important to you?

Goldberg: No. I think what has emerged as being important to you has also been quite responsive to the things that I consider to be important. I'm very, very happy to have been able to just go on talking, triggered, as I mentioned, by your questions.

Blum: Well, thank you very, very much.

Goldberg: It's been a good experience for me to remember.

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Work Experience:	George Fred Keck, 1935 Paul Schweikher, 1935-36 Bertrand Goldberg Associates, 1937-1997 Atwood and Goldberg, 1949-52
Government Service:	Civilian, active in Lanham Act, housing for U.S. Government, Maryland; mobile penicillin laboratory for Office of Strategic Services, 1940-43
Selected Honors and Awards:	Fellow, American Institute of Architects, 1966 Officier de l'Ordre des Arts et des Lettres, 1985 Fellow, American Concrete Institute, 1988 *Architectural Forum* Award, 1945, 1951 Apartment Project Award, American Institute of Architects / Chicago Junior Association of Commerce and Industry, 1959 Silver Medal, Architectural League of New York, 1965 Chicagoan of the Year, Chicago Junior Association of Commerce and Industry, 1965 Distinguished Building Award, American Institute of Architects, Chicago Chapter, 1967 Award for Concrete Shell Structures, *Engineering News Record*, 1975 Design Excellence Award, Society of American Registered Architects, 1978 Synergy Award, Society of American Registered Architects, 1979 Award of Merit, Society of American Registered Architects, 1982 Twenty-Five-Year Award, American Institute of Architects, Chicago Chapter, 1991
Selected Exhibitions:	"An Exhibition of Work by Bertrand Goldberg Associates from 1960-1970," Glessner House, Chicago, 1972. "Chicago Architects," Time-Life Building, Chicago, 1976. "100 Years of Architecture in Chicago," Museum of Contemporary Art, Chicago, 1976.

"Architecture for Health," Dallas, Texas; Kansas City, Missouri; Boston, Massachusetts, 1976-77, 1980.

"Chicago Architects Design," Art Institute of Chicago, Chicago, 1983.

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