



## **National Gallery of Art**

Gallery Archives  
Oral History Program

## **Interview with I. M. Pei**

Conducted by Anne G. Ritchie

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## Interview

**The following is an interview with Ieoh Ming (I.M.) Pei for the National Gallery of Art oral history program. The interview was conducted by Anne G. Ritchie on February 22, 1993 in New York, New York.**

**Ritchie:** I'd like to start today by your telling me your earliest recollections of hearing that the Gallery was going to be doing a new building or an expansion of some kind. Do you remember how you first heard about it?

**Pei:** Yes. I think I was interviewed by the board, actually. The board at that time consisted of Mr. [Paul] Mellon, Carter Brown, Mr. [John Hay] Whitney, and his lawyer, Stoddard Stevens, [who is] no longer with us. Then they went about--I don't know which came first. It was a long time ago, 1970. Then they went all over the United States in Mr. Mellon's plane to look at works done by each of us. I don't even know who the others were. There were obviously quite a few other candidates besides myself. The next thing I heard was that the group visited Boulder, Colorado. Mr. [Walter Orr] Roberts, my client, was very interested in this and he called me and told me that they came, and that he did the best he could to show them our project [The National Center for Atmospheric Research]. I said, "Thank you very much!" [Laughs.] Subsequently I think they went to see a few other projects as well. I wasn't there, so therefore you'd get it better from Carter Brown. Anyway, that process took a long time. They were very, very methodical, very, very serious about this selection process. It was months and months later before I heard that I was asked to come down and meet with Mr. Mellon. I believe I remember this because I was at Mr. Mellon's house a week ago when the Prince came. I don't know whether you know that.

**Ritchie:** I knew he was in the States in Virginia.

**Pei:** I was also invited to lunch there, and I said, “My gosh! I remember this place! I remember the Cézanne *Boy with the Red Vest*.” It brought back memories of a long, long time ago when I came for lunch also. But that time it was only the three of us--Mr. Mellon, Carter Brown, and myself. That was when I was told that they would like me to do this project. Months later. That process must have taken nine months.

**Ritchie:** It took quite some time, yes. Then how did you begin? We hear the story of the envelope in terms of the drawings.

**Pei:** That came much later. I began by--I think it was Carter Brown and I. Carter was very active in programming this museum. He mentioned that he would be in Europe, and I told him, “Yes, I can come to Europe too. Maybe we came make a tour and look at all the museums that were of importance,” to him particularly. Some museums that he thinks I should look at. I met him in Athens.

**Ritchie:** It was just you and Carter?

**Pei:** Just Carter and myself, and we made a tour. We toured from Greece--not just Athens alone, Greece--and then on to Italy, and then from Italy up to I believe Denmark, then to France, then to England, and back. I think that took almost one month. Three weeks, anyway.

**Ritchie:** The whole time you were together?

**Pei:** Yes. Carter had a long list of museums that he thought he and I should see together. Not always something that he thought was good, but also something that was wrong with it that we shouldn't duplicate. So we had a wonderful time, the two of us really had a marvelous time. We took turns. I don't know whether he told you that or not. When we were in Denmark, neither one of us knew Denmark very well, so therefore we said, "Well, let's just do this thing together." When we got to France, because I was already very active in France, I said, "Maybe that's a place where I should organize the visits with the Louvre and all that." Then in England, he knows England very well, particularly London, so he became, not the host but really the planner of the trip, and so on. So the two of us had a wonderful time.

**Ritchie:** So you came away with some ideas of what to do?

**Pei:** Yes, some ideas. We learned quite a lot from that trip, about daylight and the lack of success in controlling daylight at that time. Today we are a little more sophisticated, but in those days we were quite sure that unless we can control daylight it's going to be a problem. Because, you see, you can't use a mechanical method of controlling it--it's question of time and it will breakdown. We saw it in the south of Italy--I believe it was in Naples--a museum where they have louvers, for instance, under the skylight and they were all broken down. They were not being used at all. So we concluded, therefore, mechanical methods of control are something we should avoid. A few things like that.

**Ritchie:** So this was a phase that you were developing ideas?

**Pei:** Yes. Not yet about this building. That came later. Just about museums in general. The museums that were built, either recently or in the past, that may be of interest to us. Some of them did turn out to be very, very important. We saw, for instance, a museum in Denmark where the use of nature--it was the Louisiana [Museum in Humlebaek], I believe. I don't know whether you've heard of that museum or not. It was a museum in the garden. That was nice. We liked that. And of course, the East wing had a little bit of that too, within the urban context of Washington.

So that was the beginning. Then I came back, and I think I began then. But not before.

**Ritchie:** You began thinking of what it would look like?

**Pei:** By then, you see, I had a program in hand. The program has to be there first.

**Ritchie:** Of what's going to go into the building?

**Pei:** What's going to go into the building. Without that, one can't begin. Then I looked at the site. The site's a very difficult site.

**Ritchie:** Very unusual and unique.

**Pei:** Very difficult site. It's a triangular site. And the old building, the West wing, was very classic--neoclassic--which has a north, south, east, west axis. On the one hand we could not accommodate, not duplicate, that kind of axial design because our site was askew because it is a triangle. And yet, we couldn't--I could not--ignore the fact that there was a very

strong east, west axis coming from Pope's building. The design came that way--how to recognize that axis, accommodate it, and then turn it. That's why we are still axially related to the old building. When you come out of the East wing, you see the West wing axial relationship to the East wing. But once you enter the East Building, then the axis turns with the site; turns right, turns south. No, the plans sort of emerge very logically when you analyze some of the things you consider to be important and must be accommodated in this design. Eventually the double triangle came out, and the separation of the two functions. There is a study center, and there is a public part of the museum. You see, that program is important. That gave me a *raison d'être*, so to speak, to utilize the two triangles. I don't know whether you've seen some of the sketches. Carter, by the way, has a collection. [Drawing to illustrate point.] This is the West Building. This is the dome. Here's the east, west axis.

**Ritchie:** So you knew you wanted to link them?

**Pei:** Oh, yes. I had to link them. Outside is like this [drawing]. So we had to recognize this axis. Because, after all, they should relate one to the other.

**Ritchie:** Together.

**Pei:** And yet, we can't go beyond that because it's a very different kind of site. So therefore the solution came with this. That's how it all began. This portion [gesturing] we could not use.

**Ritchie:** The corner.

**Pei:** We did not use that tip. This is the usable part of the site. So the isosceles triangle is axially related to the West Building, and this other triangle became the Study Center.

**Ritchie:** You were somewhat restricted, not only by the location, but weren't there restrictions by the Capital Parks [Capital Parks and Planning Commission] and Pennsylvania development [Pennsylvania Avenue Development Corporation]?

**Pei:** Yes. That's also very important to recognize. Pennsylvania Avenue, which is like this [gesturing] had a height limit--I've forgotten, 130 feet or whatever that may be--which is very different from Constitution Avenue which has lower height limit. Then all the buildings on this side of Pennsylvania have this certain height, and yet this side of the Constitution Avenue is lower. We are right at the juncture, so this building had to recognize both height limits. That's why this building has two heights in it--one portion is higher. The towers actually reflect the height limit of Pennsylvania Avenue, but the remainder joins the height limit set by Constitution.

**Ritchie:** So that was the way to blend the two coming together?

**Pei:** Blend the two, yes. If the entire building were high, it would look uncomfortable when you look down Constitution, because this building would pop up compared with the rest. And if we make this low, then when you look down Pennsylvania Avenue then this building seems out of sort also. So this combination of heights does seem to solve a very difficult problem. In fact, this was very important when we faced the Fine Arts Commission.

**Ritchie:** Because the plan had to be approved by them.

**Pei:** It had to be approved. At that time Carter had nothing to do with the Fine Arts Commission. [Laughs.]

**Ritchie:** Oh, before his time.

**Pei:** He and I had to go together to explain our project, and the height limits were of great concern to them.

**Ritchie:** They were very strict.

**Pei:** How do you propose to resolve that? When we explained our proposal I think it was almost unanimous in support of it. They thought it was a fine solution to a very difficult problem.

**Ritchie:** And that site is such a special site, so close to the Capitol and at the end of the Mall. They just didn't want anything put up there, did they?

**Pei:** Yes. So they looked at it very, very carefully and they should. We were pleased with that because it also gave us reason to be very sure of ourselves before we go in to see them. We went in quite well prepared, actually, because we thought about all these--the axis problem, the height limit of the two avenues, having very different height limits, and how to accommodate this pivotal site. So those were the opportunities and also the constraints of the site. The constraints are very great, as you see. Also, because of that, presented us with the opportunity to



do a building that has a character of its own which is unique for this site, and wouldn't work in any other site.

**Ritchie:** Right. You had it carved out for you there. [Laughter.] You had to do something with it, right?

**Pei:** Very interestingly, you know when you talk about the east, west axis that I mentioned, today you might say, Why bother? This is a new building. This is an old building. But if you look at many of the proposals that were submitted to the National Gallery, long before I was selected, Carter will tell you that they consulted half a dozen architects. All of them are very well known architects. Every one made this building symmetrical to that building. Symmetry was very important. Every one of them.

**Ritchie:** So they would put something on that piece that was...

**Pei:** Which was also axially related. In fact, many of them just put a building [gesturing] of this size. When you do that, you've immediately limited how much you can build there, because before long that corner will stick out, you see. Many of the buildings that I saw afterwards were very small, much smaller than that site could accommodate. So we maximized. That's important. We maximized the use of that site. If you put a building like this [gesturing] axially, and also neoclassic in approach, fine. But look what happened. You can't do much of a building there. The building becomes very small.

**Ritchie:** Given all the functions that were going into it--the office areas, the exhibitions...

**Pei:** Oh, yes. We knew we had to use a good part of the site. The only part we can afford to waste is just the tip. It would be very difficult to use that anyway. As it turned out, this was very important to be left open and green. Very important.

**Ritchie:** What about connecting the two buildings underground? Was that thought of in the beginning, or did you realize that that had to be done?

**Pei:** I think I realized it had to be done from the very outset. The question was how to do it. The connection of the two buildings could not be done on the surface. If you connected on the surface, Fourth Street would no longer function, and that has to be. It's not only the Fine Arts Commission that we had to deal with. We also had to deal with the National Capital Planning Commission, who also has jurisdiction over the traffic movement of this part of Washington and Fourth Street had to be open. We had further limitations given to us, and this was that we could not have access to our museum from Pennsylvania Avenue.

**Ritchie:** So there was never a question of where the door would be?

**Pei:** It could only be here. Only on Fourth Street. We had a problem at that time of having to create two entrances--one to the Study Center, one to the museum. You must have seen it now, but subsequently--and Carter will be in a better position to explain why--that this entrance is deactivated, much to my regret. It took me a long time to find a good solution for it. Very difficult to have two entrances, on the same street, next to each other, and yet one is public, the other one private. If you look back at it again, you see that that solution was just about the only solution one can have.

**Ritchie:** You know, a lot of people don't realize there are two entrances. Of course, people aren't coming and going, but they'll say, "There aren't two doors."

**Pei:** At one time, this was an important entrance. This was an important entrance when we opened. Later on, Carter will tell you, it's a question of also control. In this case, you have to have two different controls, which, according to the early program would mandate that it would be separate. But subsequently, as they operated the museum, they found that the double control would cost too much to operate. So they really, in effect, closed that entrance.

**Ritchie:** So connecting underground was the logical way to do it.

**Pei:** It was logical, because we could not connect on the surface. Urbanistically it would not be acceptable to the Fine Arts, to NCPC, or to the traffic department. We couldn't do that. So it had to be underground. Now, connecting underground was also a problem in that it's very costly to build here underground because the water level at that time was very high. There was Tiber Creek that ran underneath it. You probably don't know that the creek is still there, as a matter of fact.

**Ritchie:** But very far down.

**Pei:** In springtime the water comes up, you see. So for these two buildings it's not a problem because we have so much weight on it. It's like a boat. But here [gesturing] we have no weight. It's an open plaza. Therefore the uplift force of the spring was very, very great. So the cost of building underground was very great. It was for that reason that we were not able to

do more. Otherwise we could have excavated two levels and we could have used that space very well for parking, for storage, for reserve, and things like that. But we couldn't do that, to go under was so expensive. It's just like pushing a raft into the water, you know. You needed too much force to hold it down.

**Ritchie:** You wouldn't have had the weight of a building on top.

**Pei:** No weight up top, you see. These two buildings, no problem. They're very heavy. It's like a boat. Well, really, this is a boat. In this case, our problem's not here. We actually built... There are two big basements down below. In fact, if you go down, there's a very deep basement there. Here we only have one basement and the ceiling's quite low. The cafeteria, for instance, has a very low ceiling. For every foot that we wished to go down we had to pay something like, oh, I've forgotten the sum, two hundred thousand dollars for each foot.

**Ritchie:** You really kept it at a minimum.

**Pei:** We kept it at minimum, yes. But the connection is there, because we all agreed it should be connected. We had to remodel this end [below the West Building Fourth Street lobby] and put escalators in and so on.

**Ritchie:** Take the beams out underneath, yes.

**Pei:** Take the beams out here, so that this axis becomes, once again, open at the lower level. Which now is very well used. Now you have shops here, you have a cafe here. So that's a bit of the history.

**Ritchie:** Now, how did your office work with that? You were here in charge?

**Pei:** In the beginning it was largely between myself and the Gallery, Carter Brown, really. As soon as we had a partie--partie in our terms means a plan, an idea, a concept. That concept had to be approved first. Once we received the approval of the concept, which is this double triangle.

**Ritchie:** Approval by the Pennsylvania area?

**Pei:** No, by the board. Also not by the Fine Arts Commission. We're not ready for that, we're not ready for NCPC. We did talk to NCPC and all of them, but we weren't ready yet. As soon as the idea was, in principal, approved, then we could go to work. Then I organized my team. My team in the beginning consisted of many young people. For instance, Leonard Jacobson didn't come in until a little later. You see, architecture has many phases. When you are talking about the conceptual phase you use a very different kind of support. I brought in some young people to help me with researching ideas, trying out new ideas, and so on.

**Ritchie:** Like how the building would be designed? That type of idea?

**Pei:** Yes. It was mostly concept. It's not a building yet, it's only a concept. At that time Yann Weymouth was very active. I picked him right away to help me. He came on and he and I, I would say, were probably more involved during that period, plus two or three other young people in the firm. But not very many. In the beginning you can't use a big staff. One simply could not use a big staff at the very beginning of a project. You have to start thinking about it conceptually.

**Ritchie:** Before you start drawing?

**Pei:** Before we start making detailed planning. Once the concept was approved, then we had to make it work. We had to demonstrate how we can put a building into concept, and how we can make that concept function according to the program. Then we build up a team for it--I don't remember how big the team was, maybe six or seven people--and work in a very intensive way for quite some time before we say, "Now we have a plan. Now it's going to work this way." The program has been satisfied in such and such a way.

**Ritchie:** So by this time you were drawing?

**Pei:** Filling in the plans. The concept was there, but we had to make the concept real. That's the time when I expanded the team, and the team became bigger. Then we had to go through a series, once again, of approval process. First the board, and then the Fine Arts Commission, National City Planning Commission, et cetera, et cetera.

**Ritchie:** Did you hit any points where you couldn't find solutions that weren't satisfactory to you? Like how were the pods developed, what we call them today "the pods."

**Pei:** The pods came about... Ah, I forgot. I overlooked something. I'm glad you reminded me of that. That was Carter Brown's idea more than mine. Carter took me to see a museum in Milan. I think it's called Poldi Pezzoli museum. It's a house museum, it really is a house. Maybe a four-story house, or something like that. It's a small palazzo, and there's a stair to connect all the floors. We went in and I enjoyed the museum very much. He said, "Well, this is the kind of museum that we should be able to build into our big museum." He would like to break down the scale of the big museum so that a museum of our size would not seem so overwhelming to the public. There's a limited amount of art that one can see in a day. If you show them too much they develop museum fatigue. He said, "Is it not possible to build small museums into a big museum so that the public will come and only look at that part of the museum?" That's how the pod idea came. I think it was Carter. He said, "I would like to see this museum combine some of the quality of the small museum within a big museum."

**Ritchie:** So instead of having just one big area...

**Pei:** That goes on, and on, and on.

**Ritchie:** ...you did three.

**Pei:** We have houses. The houses mean that you can put one show in that house, which is more or less being done now. You connect two floors, and it's on one wing. For

instance, the Greek show [*The Greek Miracle: Classical Sculpture from the Dawn of Democracy, the Fifth Century B.C.* November 22, 1992-February 7, 1993] which was the latest show, I think was on two floors--the mezzanine floor and the top floor. Did you see that show?

**Ritchie:** Yes.

**Pei:** It was connected by a stair in the back.

**Ritchie:** Sometimes when they connect them you don't know where you are.

**Pei:** I know.

**Ritchie:** They're very clever about it.

**Pei:** Yes, and then also something else that we learned, I think, was that in the big museum, first of all you have to break down the scale of a big museum to make it intimate. The pods are supposed to do that. But also, you have to have a sense of orientation. You don't want ever to come into a big museum and feel lost. Our experience has been that, and today demonstrated to be the case, as soon as a visitor feels or wonders, where am I?, they become nervous. That is bad, because that means that they would like to quickly get to where they came from. Then you lose them. They go home. Frequently they go home, or cut short their visit. So therefore to orient it, to know where you are from time to time, you want to come back to a place that you recognize--this is where I came from. It's very important. That's why the central atrium was developed. It doesn't matter which level you are on the pods, you always can come



out and say, “Oh, yes. That’s where I was.” Then you can go back in and enjoy the museum and enjoy the exhibit some more, because you know where you are. You see what I mean? So that the atrium is very important.

**Ritchie:** A central focus point.

**Pei:** A focal point so that they know where they are. Now, the West Building has a bit of that. But it’s only the rotunda that gives you that. Those two garden courts actually confuses one. You know there are two garden courts.

**Ritchie:** Yes.

**Pei:** You come out and sometimes say, “Where am I? Oh, yes, that’s where I was before,” and it wasn’t. It turned out to be different, because there are different rooms, different paintings. It’s because one is an east garden, the other one is a west garden. They are identical. Do you see what I mean?

**Ritchie:** Yes.

**Pei:** That causes some confusion. But the rotunda there’s no doubt about. When you come to the rotunda you say, “Ah! This is where.” But those two courtyards were a problem, as it appeared to us then. Therefore we created only one focus.

**Ritchie:** And with one door, everyone comes into that central part. With the West Building there are now four doors that the public come into.

**Pei:** One, two, three. The fourth one is on the upper level. It has the big steps.

**Ritchie:** The Mall, yes.

**Pei:** Very rarely used.

**Ritchie:** Right.

**Pei:** Basically really two, and then the one on the west, I guess, is not used as much. The Seventh Street. Or is it used?

**Ritchie:** Yes, fairly often. You see, our offices are in the West Building.

**Pei:** Is that right? This [Constitution Avenue] is, of course, used the most. This one [the Mall], because of the steps not so much. This one [Fourth Street] a little less so. But in this case [the East Building] there's only one entry. That's very important also from the control point of view.

**Ritchie:** Much easier to control, in terms of security and things like that.

**Pei:** Much easier. For that reason the entrance to the Study Center is now approached through here. There's one central control. Before it was this way, you come in from here.

**Ritchie:** And that didn't seem to work?

**Pei:** It worked, but it means you have to station somebody.

**Ritchie:** Another person there. Another set of people, I should say. Well, the East Building has so many unique architectural features--the coffered ceilings and the moving walkway, things that were new for that time period. How did you come up with all of these?

**Pei:** Well, it's inevitable. It had to come. The moving escalator, for instance, was very hotly debated, even at that time, as to whether it was necessary. But when you handle large crowds and you have so many floors, so many levels. We have three levels of museum. Actually four, if you take the lower level.

**Ritchie:** The concourse.

**Pei:** The concourse level. So you have to put in the escalator, otherwise people would not go up. You're going to lose a lot of visitors if you don't put them in. Now, at the Louvre they fought that also, even more strongly, against mechanical conveyances like the escalator in a nineteenth-century building. They said it was simply inappropriate. But we have it there now. [Laughter.] Without it, no one would come to see the French paintings.

**Ritchie:** That's true.

**Pei:** I wouldn't say no one, but fewer people would go up to see the French paintings. There you have to mount eighty feet of steps to get up to that floor.

**Ritchie:** Quite a few. Now, you had worked with architectural concrete before the Gallery?

**Pei:** Yes.

**Ritchie:** But what about marble? Had you worked much with marble?

**Pei:** No, not too much. Architectural concrete, a lot. But I was never able to do the kind of concrete that I would like to do until the National Gallery. I did it in NCAR, which is in the project that the board went to see. And all the low-cost housing work that I've done before the museum was all done with concrete. It was, at that time, the least expensive material, because it combined structure with surface without any appliqué to it. I would say the National Gallery's the first time we were able to do concrete as a finish material. That requires considerable research.

**Ritchie:** To get the right...?

**Pei:** We've already learned enough about the chemistry and the technology of pouring concrete by then, but we never had a chance to create concrete as a finish material, truly. In other words, like stone, for instance. Like man-made stone. We were never able to do that until this time. We succeeded, I think. The concrete work there is as good as you'll find anywhere.

**Ritchie:** It's beautiful.

**Pei:** Until the Louvre. [Laughter.] Then we applied what we learned at the National Gallery, and took it one step further. I would say today the Louvre probably has the best concrete. The National Gallery and the Louvre are very close.

**Ritchie:** I probably couldn't tell the difference.

**Pei:** I don't know. Probably not, because they are so close. In some parts of it the Louvre is superior, and in other parts not. The quantity of concrete is greater in the Louvre than it is in the National Gallery.

**Ritchie:** Did you build the same kind of forms for it?

**Pei:** We used the same technology that we learned at the National Gallery, and applied it to the Louvre. In fact, we brought the Louvre people over to the National Gallery for them to see how concrete could be, what a fine material it could become, if it were done properly. From that point on it was just a question of learning how to do it.

**Ritchie:** The marble that was used was the Tennessee Marble from the quarries that had supplied it for the original West Building.

**Pei:** That was a given. Mr. Mellon was very insistent on it. He wanted to use the same marble that his father selected before him. Of course, that means Tennessee Marble. We

learned that many of those quarries were already closed. We lost some time there, by the way. We had to open up some quarries in order to get the material.

**Ritchie:** So in terms of scheduling, that...

**Pei:** Oh, yes. We lost some time on that. We went down to--this is where the Craig Marble Company came in. I think the father-in-law of Mr. [John] Craig worked for the original company that built the West Building. What is his name? He may still be alive.

**Ritchie:** Malcolm Rice.

**Pei:** Malcolm Rice, yes!

**Ritchie:** Malcolm Rice is John Craig's father-in-law. His daughter married John Craig.

**Pei:** That's right. Malcolm Rice. So we contacted Malcolm Rice. I think it was Leonard Jacobson who did that. We invited him up, talked to him, and asked him whether he would be interested in becoming our consultant on this. He said, "Of course, I've already retired. I'd love to come back to work." Eventually Mr. Mellon, Stoddard Stevens, all of them went down to Knoxville to look at the stone being cut, big pieces were cut. We all went down to look at it and it was Malcolm Rice that helped us. He knew exactly where to get what. You see, this Tennessee Marble comes in a variety of shades. From the darkest, reddish brown, to almost white. Did you know that? Most people don't know that.

**Ritchie:** Well, I didn't know before I started working at the Gallery. I never realized it.

**Pei:** Most people don't know that. In the West Building, John Russell Pope, or Malcolm Rice, were able to select the marble so that for the base of the building they used dark colored stone, and then it gradually becomes lighter and lighter until it reaches the dome. That was the whitest. We tried to do the same. But we didn't have the choice. The selection was very limited by then. But we managed. We did the same thing. If you look closely you'll find we also graded our Tennessee Marble from dark to light. But not the same way; not as well as the original building. There was just not that much marble to select from.

**Ritchie:** The supply wasn't there. How is the marble different on the East Building in terms of the thickness and how it's put up?

**Pei:** Different from other buildings?

**Ritchie:** From the West Building.

**Pei:** Oh, no, we learned a lot from the West Building. It is not as thick as the West Building, but we used very thick stone also. We have learned from the West Building. Since the West Building there were many other buildings built with this stone along the Mall. Many of them have opened up--cracked, pieces falling off. We studied the differences and discovered the reason the West Building was so well preserved was partly due to the fact the stones were very thick. It absorbs the temperature differential so that it does not penetrate quickly enough to make expansion and contraction a problem. Many stone buildings built since then--Pennsylvania

Avenue is full of them--they're about this thick [gesturing] only. They have to be anchored to the building. Otherwise they'll be popping out. Many of them will show their joints are falling off. They have to be repaired from time to time. We learned that, so we specified our stone quite thick--four inches thick--so that we get the same benefit that the West Building has--I think the West Building is even thicker--without having to spend too much money. If we build it out of the same thick stone it would have cost very, very much. We couldn't do that. But we did specify fairly thick stones, much thicker than the Air and Space Museum.

**Ritchie:** Oh, yes. To avoid some of the problems of the thinner marble.

**Pei:** That's right. Also the joints are very fine. In our building the joints are only about 1/8 of an inch. Very rare, very rare that you find that kind of jointing. I have to give credit to Leonard Jacobson. He was there all the time, just watching it, making sure that the stone will be set just so. So the stonework there is probably as good as you'll find anywhere in the United States.

**Ritchie:** There were quite a few craftsmanship awards given to the tradesmen working on the building.

**Pei:** Rightly so. We were very demanding, and our client supported us. Sometimes you can be demanding and then the contractors start to complain and obviously all that's compromised. But not in this case. If we were able to defend ourselves, explain the reason why they should be done properly, the board usually supported us, the building committee. There's no such thing as a board--there's really only five men.



**Ritchie:** Right. Did you attend their meetings regularly?

**Pei:** I missed two meetings in three or four years. Mr. Brown missed two or three, one or two. And Mr. Mellon missed not a single one. He's the only one with a perfect record!

[Laughter.]

**Ritchie:** Well, that was good. It was his building.

**Pei:** The meetings took place usually, not always, here [New York] on 70th Street on Park Avenue. Occasionally in Washington.

**Ritchie:** Coordinating a project like this must be phenomenal. I mean, to keep everything moving along on a schedule, and to keep the drawings going and the plans and everything. How do you do that?

**Pei:** You have to have very good people helping you do that, and we have good people in the office. Also, we have to have a client that is patient enough to demand quality. Frequently in our meetings the subject of delay, the subject of cost, would come up. We had Carl Morse. The name is carved in the stone, but probably not familiar to you.

**Ritchie:** I know his name.

**Pei:** He was the construction manager. He sat in most of the meetings, not all but many of the meetings. He was the one that usually brought to the committee's attention: "The

architect is very slow,” or “too demanding,” “our schedule has to be revised,” or “the cost is going up.” You know, that’s his job. He had to do that. Frequently he would prevail and I would be saying, “Yes, I will see what I can do.” It’s sort of a give and take. But there were times when we’d disagree on something, and Mr. Mellon would step in and would turn to me and say, “Is this really necessary?” If I said, “Yes, I think so,” that was the end of it. Because I didn’t do it very often, when I had to say, “Yes, this was important,” Mr. Mellon would usually side with me and say, “Let’s move on.” Very important.

**Ritchie:** So you stayed with the project through the whole...

**Pei:** From beginning to end.

**Ritchie:** Many years. Is that normal for your involvement in a project?

**Pei:** Normal, but not always demanding that much of my attention as this one did. No, I usually stay on a project from beginning to end. Some projects I would give more attention than others, naturally. A low-cost housing project, like Kips Bay [Plaza] in New York, I would only go there occasionally. Whereas this one I probably went every week.

**Ritchie:** To Washington?

**Pei:** To Washington, just to look at it, yes. Because it was important, a very important project.

**Ritchie:** Tell me what role you played in the works of art that were placed in the building-- the commissioned works of art.

**Pei:** I was on the informal committee.

**Pei:** I think it was really under Carter Brown. There were a number of people. There was Carter's first assistant, David Scott. I was there, David Scott was on the committee and occasionally Mr. Mellon would enter and talk about it, especially when we had to make a commission for a big one, like the Henry Moore for instance [*Knife Edge Mirror Two Piece*]. I usually participated, because the scale of the piece to be commissioned has to be correct for the building. This is where I came in. I remember that David Scott was more responsible for, let's say, the [Joan] Miró tapestry [*Woman*]. Carter and I were more involved in the Henry Moore, and before Henry Moore was the [Jean] Dubuffet, which was rejected. We commissioned both of them, actually, to make suggestions as to what they would do. I remember the Tony Caro [*National Gallery Ledge Piece*] which I recommended and Carter consented to it. Let's see... Henry Moore, Tony Caro, Miró. The [Isamu] Noguchi [*Great Rock of Inner Seeking*] was given. There were a few pieces already given, not specifically for a certain part of the building but just given to the museum. Then we would then find a suitable place for it. There was a [Jean] Arp, a big Arp, which was inside and then went outside again.

**Ritchie:** And there was the David Smith [*Circle I, Circle II, Circle III*]?

**Pei:** David Smith was not bought for the building as such. It was bought for the collection. Then we opened with a big show of David Smith [section of *American Art at Mid-*

*Century: The Subjects of the Artist* June 1, 1978-January 14, 1979] and everyone thought that was a wonderful show, a wonderful room. Since then, the museum has purchased a few more. So now we have a fairly good collection of David Smith. I don't think we commissioned David Smith. He wouldn't take commission anyway.

**Ritchie:** I see.

**Pei:** You just came up to Bolton Landing [New York] and you picked one you liked! He didn't take commissions for a specific building.

**Ritchie:** You and Carter went to visit Henry Moore?

**Pei:** Yes. We visited Dubuffet, and Henry Moore.

**Ritchie:** And Calder.

**Pei:** And Calder. Ah! I forgot about Calder!

**Ritchie:** I wouldn't let you forget that!

**Pei:** Oh, Calder was very important.

**Ritchie:** You had worked with Calder before?

**Pei:** Oh, he was a very good friend of mine, but I'd never worked with him. Yes, yes, yes, I did. I shouldn't say I never worked with him. I worked with him at MIT [Massachusetts Institute of Technology]. He did that big one for me at MIT called *The Big Sail*. That was my first. I knew him a friend for a long time before that. But when we decided to commission a mobile here, both Carter and I went to him. In fact, we went to France to his studio in France--Saché, or some such name--to discuss the piece with him. He surprised us. He said, "Oh, why don't you come and look at it?" "What? You already have something done." "Yes, I've already done it. It's now being made." Carter and I were so surprised. We thought we'd go and see some maquettes or something like that. He took us to a foundry, or to a shipbuilding factory. Sure enough, a big piece was already made. It looked very, very heavy and weighed tons, actually, just one arm. Carter and I looked at each other and neither one of us were happy with that. I'm sure, if you ask him, I'm sure he'd concur. We all somehow felt that this piece is not right. It's not like his small scale pieces. We even wondered whether this piece would ever move. So we expressed our concern right there and then. He was not well--already it was toward the end of his life. He said, "Oh, that's the way they build it"--"they," meaning the shipyard. He didn't seem to want to make too much of an effort to change. At least that's the impression I had. We left the place not satisfied, in fact quite worried about what this piece would turn out to be. If it were to continue to go about in that same way, that was only one long piece but there were many, as you know, up there. If all of them were built in the same scale then I would have to worry about whether I can suspend it in the space frame, the skylight up there. I worried about that, worried about whether it would ever move, worried about whether it would look too heavy. Carter was the one that finally found the solution for it. When he was at Harvard he roomed with [Henri] Matisse's grandson, Paul Matisse. He consulted Paul and Paul

said, “I know how to make it lighter.” Carter had enough confidence in Paul that he said, “Yes, try.” Paul was the one that came up with this ingenious solution.

**Ritchie:** And Calder agreed to let him work on it?

**Pei:** [Laughing] Calder was not very happy about it. But he finally... I think actually, you know, he was so inactive in pushing his own direction that he pretty much allowed us to experiment our way. When the piece was finally made and suspended up there, I believe Calder came and looked at it and liked it. I think the movie [*A Place to Be*] showed him at the point that he walked out. Remember? Have you seen it?

**Ritchie:** Yes.

**Pei:** That was the end. A few weeks later he died.

**Ritchie:** So he never saw it when the building was open, but he saw enough to know.

**Pei:** He saw enough of it. No, I think in his heart he knew that was the right way to go. I’m sure he was happy with it. But it was a disappointment that we didn’t follow his advice all the way.

**Ritchie:** Adjustments had to be made so that it would work.

**Pei:** It had to be done this way in order to be a real Calder. Otherwise it wouldn't have been a Calder. It would have been a poor adaptation of Calder. I think that was a success. That turned out to be a success.

**Ritchie:** And the Henry Moore wasn't originally planned to be there.

**Pei:** That's another story. My preference was Dubuffet. Carter was a little less certain about Dubuffet but he did go along. In fact, we went to see Dubuffet in Paris. First we invited him down here to Washington to look at the big maquette. We had a big maquette, almost the size of this room.

**Ritchie:** Which your people had put together?

**Pei:** Yes, all made by us here, made out of paper and cardboard. He looked at it, and he looked at it, and then crumpled some paper and put it in front where the Henry Moore is now. Looked at it again, measured the size. He said, "All right." And he left. By then he had already taken mental notes of scale, how big the piece should be. A few months later Carter and I went to Paris to see him. We went to his studio, and he already had very large mock-ups. Each figure was about this [gesturing] size, they were different sizes. He had constructed the entrance of the museum, and he put it there. He was very, very good at that sort of thing. Then he called it *The Welcome Parade*. Sort of like in a circus, you know. "Come one, come all." He thought it was very appropriate. There was a little child with arms like this [gesturing], and a mother, father. There were five or six figures standing in front. I thought it was wonderful. There was a little bit of whimsy. Washington is so staid, especially at that time. I thought it'd be wonderful to

have something light. The building also was kind of very, very restrained because we have to be part of Washington, and we're permanent. It's very hard for us to do something whimsical in the building. A building doesn't have the same kind of adaptability, or the acceptability, as a piece of work of art has. So I thought that would be great fun to have something like that. But I think Carter was less sure. He knew Washington better than I did. He knew Congress has to, every year, vote a certain amount of money to keep the Gallery going and all that. Finally, I think he opted for Moore because Moore is safer. I think that's it. Actually, Moore and Dubuffet were both commissioned at almost the same time. We gave the Pennsylvania Avenue to Moore, and Dubuffet on Fourth Street in the front. As Dubuffet's proposal seemed to get less and less support, Moore, on the other hand, was quite certain to be accepted. But Moore came himself, and Moore did not like the site that we chose for him. In fact with very good reason. I don't know whether that was recorded or not. He just said, "You know, I don't like that site you gave me." I think he was looking at me more than looking at Carter at that time. [Laughter.] He said, "I'll tell you the reason." It was a very good reason. "There's no sun on that side." It was the north side. Sculpture has to have sunlight. I said, "Mr. Moore, of course." It was then we offered him the front because by then Dubuffet was already rejected as a possibility.

**Ritchie:** So you were able to move him around to the front.

**Pei:** Move him around. The piece that he selected--it's a piece that goes up like this [gesturing], like a giant conch. I don't know what you'd call it. It was like a shell. I'd never like that piece. I knew Moore even better than I knew Dubuffet. I visited him many, many times long before that. So I could talk to him a little bit. With Dubuffet, whom I also knew, it was a little more difficult. The personalities were different. Moore's a person you can reason with



more easily. Dubuffet, once he sets his mind on something, that almost is it. So I told Moore that I didn't really like that piece. I thought that, as an example, maybe the *Two Piece Knife Edge* would be very good. He said, "Why not! Let's look at it."

**Ritchie:** Oh, so that was easily decided.

**Pei:** That was easily decided. Then he and I worked together on first of all changing the piece around. I don't know whether you know or not.

**Ritchie:** After it got here?

**Pei:** No, no. It's not the same as his maquette. He made one this [gesturing] big. The two pieces were like this [gesturing]. We changed it to be like this. So it means a completely new model. This [gesturing] is unique. It's not something that he's done many times before. You'll notice that the *Knife Edge Two Piece* that he originally sculpted was opposite to this one. This one is like this [gesturing], the other one is like that.

**Ritchie:** So he did a whole new one?

**Pei:** A whole new one.

**Ritchie:** I see.

**Pei:** The reason we asked him to change is this--the entrance, in plan, is like this [drawing]. The steps, and there's a ramp for handicapped people, we would put the Moore here.

In here, this is glass and this is the stone. We wanted this piece to be like this so that you can see the entrance. Whereas the original is like this.

**Ritchie:** Blocking it.

**Pei:** Blocking it, yes. We said, “Wouldn’t it be nice to open it up so that we can see the entrance.” The revolving doors are here. He said, “Why not.” It does mean an entirely new piece. So he had to cut out of Styrofoam an entirely new piece, custom made for us.

**Ritchie:** And then transported over from his studio in England.

**Pei:** Yes, it was made in England.

**Ritchie:** So really, in working with the works of art, it was for the scale--to see that they were in fitting with the building?

**Pei:** Yes. And appropriateness, too. Both the Moore and the Dubuffet were correctly scaled for that particular entrance. One seemed to be more appropriate to others. The Moore seemed to be more acceptable.

**Ritchie:** What a nice opportunity for you. Do you get to do that often in your work? Work with the artists too?

**Pei:** Oh, yes. Many times since.

**Ritchie:** How nice.

**Pei:** I did it many times before! First of all, I knew the artists. I knew each one of them--Caro, Moore, Miró, Dubuffet. I knew them all. I commissioned them long before the National Gallery. I had a big Moore for Columbus, Indiana for [J.] Irwin Miller [Cleo Rogers Memorial County Library]. Bigger than this one, actually. It was done in the early sixties. Dubuffet--I'd never commissioned Dubuffet before. I bought many of his things. I owned quite a few Dubuffets long before we commissioned him. So I knew him that way.

**Ritchie:** In thinking about the building, were there any issues or problems that came up that you really weren't satisfied with your solutions?

**Pei:** Always, yes. I think the proportion of the building, if I had my way it would have been a little different than it is. But then, it's a little bulkier than I would like it to be. I would like it to be a little lighter looking, but that means losing volume. Also nonconforming were the height limits of Washington. In order to conform to the height limits and then to have enough volume so that we can adequately utilize the site, the building is a little bulkier than I'd like it to be. But aside from that I think it functions very well. I really do. Many of my critics said that the museum has too much volume and too little area for display. But that was done on purpose, actually, because both Carter and I felt--and we agree even to this day--that that was the right way to go. There was a lack of public space in the National Gallery West Building. Particularly at Easter time, let's say when large crowds, school groups come. There's no place for them to gather. We don't have it in the West Building because the rotunda at that time was one floor up. It still is one floor up. Now we have cut an oculus in there so you can see it. Before, you know,

you'd come in really in the lower level, then you have to look for the stair to take you upstairs. So it's not a public gathering space. That rotunda is very, very solemn.

**Ritchie:** It's more like a part of a church or something.

**Pei:** Very dark. Dark, dark stone. Beautifully made! The stonework, the marblwork, is just perfection. That's the sort of thing that really inspired me to do something as well, although we couldn't. The craftsmanship was not anywhere like it was thirty years ago. At that time.

**Ritchie:** Now fifty years ago.

**Pei:** But that's not a public gathering space. The public does not like to linger there. They didn't like to linger there. They still don't. In spring, of course, with the flowers around the fountain, it's wonderful. But you don't see big crowds gathering there. We wanted to create that kind of a space, so we gave up a lot of volume for that. That big atrium is designed especially to make up for lack in this complex of the West and East Buildings. Our critics didn't know that. They don't know it. So we gave a lot of volume to that, and it worked. Another reason, of course, is that there has to be an orientation space as well. You should see that space from many angles, many places, so that you know where you are.

**Ritchie:** And it's used also when they have the big shows and they have lines. You have to have a place for people to wait.

**Pei:** Now we even see many new uses coming in, like dinners, receptions, things of that kind.

**Ritchie:** Was that factored into your plans?

**Pei:** Not really. Although I'd already attended several dinners in the East and West Garden Court in the old building. I'd seen it used, but it was never very adequate. You can accommodate maybe one or two hundred people at dinner, but not more. I think we can accommodate three to five hundred people.

**Ritchie:** Quite a number, yes.

**Pei:** Quite a large number. I believe the space is being used for many state occasions as well. I know when Prince Charles came he was received there. Those are the reasons. That part of it I don't think I have to apologize for. I think it's correct. More exhibit space would have been desirable, but that has to be at the expense of something else. What is that something else? The Study Center is a must. In fact, it's already too small. Gallery space we had and we still have lots of in the West Building. The West Building is not completely used yet. I don't know whether you know that. Not completely used. We can squeeze many, many more thousand square feet of exhibit space out of it. But the East Building is saturated. At that time we had no collection, also.

**Ritchie:** No twentieth century.

**Pei:** No. We had the beginning of a little bit of it, but that was about all. So there are a lot of changes in the last twenty years.

**Ritchie:** Are you pleased when you come back and you see it?

**Pei:** Oh, yes. I enjoy it always. Like visiting an old friend. Also, the building was so well maintained, under Carter Brown. Now under Rusty Powell, I'm sure that it will continue to be a pleasure for me. It's not always the case, you know. I will go back to other places and I will say, "Why don't they clean the building a little bit?" "Why don't they do this and that?" But at the National Gallery I almost never have any criticisms. It's wonderful.

**Ritchie:** Did you ever expect that very sharp edge to be so popular with people?

**Pei:** No. Not at all. I wanted that sharp edge, as Carter will tell you.

**Ritchie:** It's eleven degrees?

**Pei:** It's not so much the seventeen degrees. Not that. You see, usually in stonework-- you can talk to all the stoneworkers including Malcolm Rice--he will say if you have a sharp angle you should blunt it. Because it's much easier to put together, much less danger of being broken. I insisted on keeping the sharp angle, and that Carter will remember. And it's made that way--with a sharp angle and hasn't been blunted. But it's been rubbed! [Laughs.]

**Ritchie:** It's irresistible. People just want to touch it.

**Pei:** You see, this is why I chose the *Knife Edge*, the Henry Moore piece. But the building came first, you see. We have a knife edge. I secretly wished we could have the *Knife Edge* because I thought it was so appropriate. But I don't think even Mr. Moore knew that. You see, the buildings were already designed before we chose Moore, so when I went through Moore's entire catalogue and I saw *Knife Edge*. I liked the name of it. It somehow seemed to be correct. Maybe Carter knows, but I don't think. I never confided to anyone about the reason why I chose *Knife Edge* over the other pieces.

**Ritchie:** Do you see any of your Chinese traditions and heritage in the building? Is that part of your work?

**Pei:** No. Not consciously, no. You see, my technical training is all in the United States. My architecture training was completely Western. The garden, yes. Bringing nature inside was very much an Eastern tradition.

**Ritchie:** You had visited the gardens as a child?

**Pei:** Oh, yes. My family owned one of those gardens that now has gone to the state. I've been asked this question many times, so I've thought about it a great deal. Consciously, I will sit down and say it's definitely no. Subconsciously, I'm sure it has to be there somewhere, it has to be there. For instance, I always delight in surprises, which is not a Western tradition. Western tradition is usually quite frontal, quite open, quite axial--particularly gardens. You go to Versailles, for instance, you get up on the terrace and look out, it's there. And the rest is for you to get closer and closer and closer to the water and closer to the horizon. That's about it there.

But the Chinese garden is just the opposite. It's very small, very personal, and full of surprises. You look at it, you think you've got it, that's not the end. Turn right, it leads you on to something else. Then turn left you so somewhere. That element of design--of surprise, of human scale--was very much... If anything has influenced my design, that will be it. I think there is always a little bit of that.

**Ritchie:** Well, your building is full of surprises, don't you think? Especially for children coming in the first time?

**Pei:** Yes, I think there is a bit of that in this building. It's there, but they didn't know it until they came close to it, then they'd turn around and say, "Oh, there's another entrance. There's a gallery there." No, I think that's just about all I can think of. Beyond that, it would be very far-fetched for me to bring back my roots, so to speak.

**Ritchie:** You were talking about the garden, would you have worked with the landscape architects on the exterior?

**Pei:** Oh, yes. Dan Kiley. And also Mrs. Mellon. Mrs. Mellon made a lot of contributions to that. I don't know whether you know that.

**Ritchie:** No, I was not aware of that.

**Pei:** She picked the pin oaks. She knew that pin oaks would do well in Washington. It's a fine tree, fine leaves, and it is beautiful. She and Dan Kiley worked very well together. So



I would say that the three of us--Dan Kiley, Mrs. Mellon, and myself--worked on that. The fountain that they have is a fairly important design element as well.

**Ritchie:** Was that thought of from the beginning?

**Pei:** No. You see, this seventy-degree angle that formed between Constitution and Pennsylvania eventually goes into the garden. All these pieces, all these triangles, are a result of that angle.

**Ritchie:** Oh, I see.

**Pei:** You see, all the little pyramids--people call them pyramids. They're not pyramids at all, they're tetrahedrons. All of the big, high and low ones, all coming out of that geometry. In fact, it's related to that waterfall in the cafeteria. That angle is the angle that leads from here to the West Building, is the same angle as this one.

**Ritchie:** The street.

**Pei:** This fountain in the center was all coming out of that geometry. So this cluster is part of this design.

**Ritchie:** Every so often you get away from the triangle and you have a circle or something. Or a curve. But not too often. There's a circle out here in the middle.

**Pei:** The bullets were circular, yes. The circle is right, because the movement of the cars was circular. But inside it--the fountains, the tetrahedrons--are all part of that geometry. So it's more related to this, than it is to the West Building. I think that very few people realize that.

**Ritchie:** The connection there.

**Pei:** The connection between this and that.

**Ritchie:** But once again, it's a wonderful thing that people loved to go and touch the water or put their feet in on a hot day.

**Pei:** They do, yes. We did it without using pool. Pool usually splashes the water. In this case we have it come right down to the stone, and then fall down. The water would drop down the chadar, we call it. The chadar is really a Persian word, chardah. Chardah means a tilted plane which the water falls down on; cascades down. Many Persian gardens have that; or Islamic gardens, I think. You also see it in India, so therefore it must be Islamic garden rather than Persian.

**Ritchie:** So it's not really a waterfall.

**Pei:** Not a waterfall. This actually goes down with the plane. Because the plane is rough, therefore it creates a lot of white water. That was inspired from... At that time I was already working in Persia, in Iran.

**Ritchie:** So you incorporated what you saw there.

**Pei:** Some of those things, yes. The use of water. The Islamic, Persian, gardens are wonderful in the use of water. We know that. This is adapted, but it's part of.

**Ritchie:** There was a little pool in the East Building, wasn't there.

**Pei:** There was, it's no longer there. My original design was a pool with sculpture on it. Now it's all fill, it's now landscaped. It now is a Japanese garden. That came afterwards. There was a good reason for that. Underneath that we have storage for art. Carter was very afraid that if the pool should leak it would damage the works of art. So he talked to me about it and I said, yes, if that is the case let's get rid of it. But originally it was water. No more.

**Ritchie:** In the beginning I asked you about the famous envelope that you supposedly did the first sketch of the building on. We have a lot of your sketches on the tracing paper, but there's the story that you were flying back from Washington to New York and you sketched on an envelope, or a cocktail napkin.

**Pei:** Yes, I think I did that. Let me see. Yes, I did that. I don't know where it is now. But I did use that as the beginning of the so-called partie--the concept. I brought it back here to the office to have the idea tested. Then gradually the building evolved out of the two triangles. One is an isosceles triangle. You know what that is?

**Ritchie:** Yes.

**Pei:** The other one is... It's these two [gesturing]. This is an isosceles triangle, which lends itself to an axial relationship to the old building. And this is the rest. When the two were separated, then the garden spanned across. This is the slot; we have a slot here. You can see the Washington monument here, you can see the Smithsonian museums. So all these are related to other monuments in Washington. It gradually developed, and then the pods came out--the three pods that emerged. Then we had to create a garden here on the roof. All these gradually developed. In the beginning it was very... Just to have two triangles. That's how it started.

**Ritchie:** We feel very fortunate to have all the drawings--the shop drawings.

**Pei:** [Laughs.] We don't make drawings very much. We make models a lot. We don't do drawings. At least, I do not.

**Ritchie:** We have the early sketches, and then we have the Steven Oles drawings.

**Pei:** Steven Oles renderings, yes, of that big space. That went through several transformations. The big space. I think Steven Oles drawings will show the many ideas that we tried, and abandoned, and eventually resulted in this one.

**Ritchie:** So different people worked on different aspects?

**Pei:** Yes. Steven Oles, with drawings for us, would test an idea. In those days we didn't use the computer that much. Today we could have done it with the computer. Steven was in our office at that time, so every time we had an idea he would take it and show this is the way

it's going to go--very rough. Only one drawing was made complete, really delineated exactly the way it looked. The rest is all sketches. Because by then we knew enough about it, we could tell by the sketches, "Yes, let's pursue," or "No, let's go in another direction." That was very useful. He was very helpful in helping us examine the space and the volumes.

**Ritchie:** So today you wouldn't have those kind of drawings? It would be done on a computer?

**Pei:** More likely. It takes less time. The difference is this--a computer doesn't talk back. A computer can show you what you want to know, but Steve Oles talked back to us. He said, "I don't think this is as good," and the reason is this and that. It's not evident in his drawing. When he was drawing it he'd discover certain things, which may not be even apparent in the drawing. The computer, of course, doesn't do that, you see.

**Ritchie:** You get back what you put in.

**Pei:** When you work with Steve Oles, he can say, "Well, that's the way it's going to look, but..."

**Ritchie:** "What about this?"

**Pei:** Yes. So I would say today we wouldn't do it that way anymore. We would use the computer a lot more. But I would miss also another person's eye. Sort of another way of

looking at it without seeing it in the drawing form. The human intelligence is not so easily transferrable.

**Ritchie:** Is there anything else you'd like to tell me? Something I haven't asked you about the building? Someone else who worked on it?

**Pei:** I think lighting.

**Ritchie:** Oh, the lighting. Yes.

**Pei:** Quite important. Claude Engle did a very good job for us. The public rarely sees the building at night. You do, and I've seen it many times at night. It was very important, the lighting. The lighting was a very well, carefully conceived approach to lighting. I wanted those pods to be seen at night, because if you don't see the pods at night you would think that the skylight is the limit of that space, whereas in the daytime if you walk into that building those pods are very apparent. You see through that skylight and you see them. That gives you another dimension of space, so that the space of the atrium is not defined by the roof, it's defined by the three pods, and that wall. The one wall and three pods.

**Ritchie:** The long wall?

**Pei:** And the three pods. That defines the volume and the space. But at night, if you light the space you don't see those. If you don't see those pods and the wall, the space is limited to the skylight. So I wanted those pods to be illuminated at night. It was Claude that said, "If

you illuminate the pods at night, why not let the reflected light come back and light that space. That was his idea. So the whole lighting was done in such a way so that not only are the wall and the pods lit, but, in turn, they come back and light the space.

**Ritchie:** Inside?

**Pei:** Inside, in a very soft way. Of course, you have to supplement with other lighting. Lighting the trees, lighting people, and all that. But that's the concept that was established rather early. To do it technically was not easy. That was Claude Engle that did it, that made it possible. On that wall you'll see there's a battery of lights there shining upward. I don't know whether you noticed.

**Ritchie:** I'll look more carefully next time.

**Pei:** That was to light the pods and the wall so that once they're lit then the space is not limited by the glass roof. It goes beyond the glass roof. That's very important.

Another one is the library. The library was a central space. That idea was an idea that both Carter and I from the very beginning latched on to.

**Pei:** The library became the organizing element in the Study Center. Everything began with that library. In fact, it was so important to us that even today the library has developed into something else again. Even then none of us would like to destroy that space. If we were to floor over the library, for instance, one could recapture a great deal of space, but destroy many other advantages that the library has. So the original concept was the library as the

organizing, and therefore the space which would pull everything together. That was all the researchers, all the people working there, all considered the heart of the Study Center to be the library. It seemed so appropriate to us then. It still does to me today. So I'm still resisting destroying the library.

**Ritchie:** With the big open space, it brings in the light.

**Pei:** Brings is light, and makes all these cubicles good. Without it, the cubicles would be behind a blind corridor. It would be awful. Wouldn't it be? We have very little windows, you see. This is a residual space.

**Ritchie:** Yes, inside.

**Pei:** Without this triangular library we would lose a lot. So this is very important. These are the offices, and that makes that corridor come alive. There are many levels open.

**Ritchie:** Yes, it would be dark without that.

**Pei:** It would be dark, yes. So therefore this is very important. From the very beginning it was important to us, and still is. There were several times people asked me whether we couldn't do something with it and make it more useful. I always came back and said that it was too late. This is the organizing element, and too central to the whole partie. If we give it up, we give up the whole Center. That was one thing. Then also because this triangle is not used,



and it belonged to us--never would there be a building between us and Congress--therefore most of the offices are here.

**Ritchie:** And face out.

**Pei:** During the last inauguration, you know how popular that place was.

**Ritchie:** Yes! [Laughter.]

**Pei:** I think you've covered pretty much everything.

**Ritchie:** Well, I appreciate your sharing your thoughts with me, and all that you've given to the Gallery Archives. We certainly are very glad to have all of the Pei drawings and shop drawings.

**Pei:** I wish there were more, but that's not the way I work. Even the Louvre I didn't make very many drawings.

**Ritchie:** No?

**Pei:** No. In France, of course, they preserve those things. Every project is so well drawn, rendered, and meticulously drawn, and we just don't do that. Drawing is just too slow a process.

**Ritchie:** So you go right to the plans?

**Pei:** Go conceptually. Put ideas in the head, and eliminate them in the head rather than by drawing. The drawing is not fast enough. Not for me, anyway.

**Ritchie:** You move along quickly.

**Pei:** Yes, has to. The thought process has to be instantaneous. You have to reject ideas and not have to test it on paper. It takes too long. So that's my way of working.

[End of Interview.]