



Transcript for

AUTOMOTIVE DESIGN ORAL HISTORY PROJECT

INTERVIEW WITH ROBERT ZOKAS, 1984 and 1987

Object ID 91.1.1673.80

Published in Hardcopy Format: circa 1987

Published in Electronic Format: August 2021

Benson Ford Research Center
The Henry Ford
20900 Oakwood Boulevard · Dearborn, MI 48124-5029 USA
research.center@thehenryford.org · www.thehenryford.org

NOTE TO READERS

This PDF-format version of the Robert Zokas interview transcript was created from digital images taken of the original bound hardcopy transcript held in collections at The Henry Ford.

The Automotive Design Oral History Project, Accession 91.1.1673, consists of over 120 interviews with designers and engineers conducted by David Crippen of The Henry Ford during the 1980s. For more information, please contact staff at the Benson Ford Research Center (research.center@thehenryford.org).

Staff of the Benson Ford Research Center
August 2021

AUTOMOTIVE DESIGN ORAL HISTORY PROJECT

ROBERT F. ZOKAS

1984

EDSEL B. FORD DESIGN HISTORY CENTER

Henry Ford Museum &
Greenfield Village

This is Dave Crippen at the Henry Ford Museum's Edsel Ford Design History Center with another of our series of interviews with key industrial designers. Today we're speaking with Robert F. (Bob) Zokas, who has been with Ford for twenty-nine (29) years tomorrow, July 11, and this is July 10, 1984. We're going to let Bob tell his story in his own way, and we hope that you'll be candid and subjective.

A So you'd like to start way back? How I got involved in this?

Q Right. I think it's helpful to have, especially, the influences on you in terms of career goals.

A Well, going way back, my mother always told me that ever since I could hold a pencil in my hand, I was drawing cars. So, as I grew up, I was always drawing cars. I'd draw the teacher's cars in art class. I just couldn't get cars out of my mind--loved cars. But, when World War II broke out I decided to go into mechanical engineering at Northeastern University in Boston because my father felt drawing cars was just what an artist did, and he didn't want me to be a starving artist living in a garret.

Q Were you from the Boston area?

A I'm originally from Massachusetts. So he kind of talked me into -- you know, engineering was the thing in those days. You had to be an engineer. So, I followed that course for three months and decided I didn't like that at all, and then I joined the Navy. While I was in the Navy, it finally hit me that I just wanted to design cars, and when I got out, I went to a school in Boston called the Vesper George School of Art. The school had an industrial design course, which I took, and I was in it for a few months and decided I really didn't think this course

was going to do me any good. So, I switched over to advertising, which was the main function of the school. I graduated with honors and was in advertising for about five years. I ended up at Photon, Inc., which was a company that was designing a new machine for setting type, and I was a type designer there for a year or two. It just so happened that the boss I had loved cars. Well, specifically, he loved Oldsmobiles. He had an Olds 88. And the Olds 88, of course, at that time was the hottest car on the road. So, he was always after me, "Well, draw me what you think the 1957 Oldsmobile will look like." Or, "Draw me this Olds/that Olds." And he kept inspiring me, and he finally got me to do something about it. He said, "Why don't you write to these automobile companies?" And, I said, "I don't know where to write."

I had this ridiculous idea that the designing was done by the advertising agencies. That's how far out I was. But, anyway, one day I got one of the automotive magazines from California, and on the back page was a large photograph of Gene Bordinat, who at that time was a chief stylist of the Lincoln-Mercury studio, and that kind of triggered me. I started to put a portfolio together--drawings of cars. In the meantime, Motorama, which you'll remember [as a] General Motors automobile show going around the country. They were coming to Boston, and they advertised for clay modelers and designers. At the time, my portfolio was out here at Ford. I had already heard from Chrysler. Chrysler thought I wanted to be an engineer, and they sent me all kinds of papers to sign that I would waive any inventions to them. So, that didn't work out, and I went for this interview, and all I had was a few slides of my work, and that really didn't go over too well. They like

to see original sketches. So, I got a letter from G.M. rejecting me. In the meantime, I got a letter from Ford--a telegram.

Q What year was this?

A This was in 1955. And, pardon me, I didn't get a telegram. What I finally did was I decided to just take a week's vacation and drive to Detroit, because I wasn't getting anywhere through the mails. So, my wife and I drove out here. It was one hot July day, and my poor wife was dying in the car out in the parking lot. I was all day in personnel filling out applications and having interviews. I finally went over to the Design Center and had several more interviews. And then Roy Brown, who at that time was heading up the Edsel studio, hired me. I was just thrilled to think that I was going to get into this business, and I was even more thrilled when he told me what my salary was going to be. Compared to the Boston salaries, this was quite fantastic.

So, I left by myself--left my wife and kids at home. Came out here to Detroit and took a room at the YMCA at Clark Park. I then started to look for a home for the family and finally got settled in August. I started out in the Edsel studio, but not as a designer. They hired me as an illustrator, and at that time the illustrators used to set up the shows for management. In other words, the designers designed--did their sketches--and then we made a nice display of them on large boards and set up the whole show for management. Fortunately, I had a good boss there, too. He knew I wanted to get into design. He said, "Bob, whenever you have any free time, go ahead and draw cars all you want."

So, Bud Parks was real generous in that respect, and I picked up a lot of tricks from the studios, of course, and it was only two or three

months [until] they put me in the studio. At that time, I worked for Ken Spencer, who was the exec for the advanced studio, and we did all the advanced Edsels designs.

Jim Sipple kind of caught on to me. At that time, he was exec of Edsel production Interiors and Exteriors, and he needed somebody to do the lettering for the car. He saw that I had that ability because I came from Photon where I had been a type and graphics [designer]. So, nights on overtime I did the designing of the lettering for the Edsel car.

Q That's your design?

A Yes. On the exterior.

Q That everyone saw on the front?

A Right. So, then Jim Sipple wanted me so much, he said, "How would you like to transfer into the department?" Ken Spencer (and I thank him to this day) said, "Bob, I'm not going to hold you back. If you want to go, go ahead. But, I'll tell you one thing, if you go, that's all you'll ever do the rest of your career is lettering and ornamentation. You'll be branded." So, I took his advice, and I didn't go, and I was very thankful that I didn't.

Later on, I worked on the '58, '59, 1960 Edsel instrument panel. I was in interiors, which they called hard trim at the time. They used to separate the soft from the hard trim. There was a department that did all the seats and door panels, and a department that did the instrument panel. Then, of course, as you know, the Edsel was cancelled.

Q Incidentally, as an aside, we've interviewed Roy Brown, and he's very proud of the Edsel. He said, "I will never feel that it wasn't a good design."

A Oh, I agree with him.

Q He said, "I think it was badly sold, badly promoted, and," "they almost put it on the shelf from the beginning." He said, "Of those of us who worked on the Edsel, we're all proud of our design."

A That's right. They worked very hard to get a very distinctive front end. We researched all the front ends of cars of that period and wanted to get something that was really unique and would stand out from a distance. And, I know, when I first came into the studio, they had very nice, delicate vertical chrome bars for the grille. And engineering, because of cooling [problems], opened that grille up, and it wasn't quite as attractive as what I had seen originally. And then Bill Schmidt, who had Lincoln-Mercury studio at the time, left and went to Packard and come out with the Packard Predictor. I don't know if you remember that show car in 1956, but there was our Edsel front end.

Q In fact, Bunkie Knudsen came up with almost an identical design on Pontiac?

A Exactly right.

Q So, it still lives in [Edsel] car clubs.

A I know, and getting more popular. No, I was real pleased to be part of it. From there I went into Interior studios and worked on the Comet instrument panel -- 1960 Comet, 1961 Mercury. So, I was in interiors for that period of time. I think, it was around 1963 that I went into the Exterior studio under Buzz Grisinger. He was the chief stylist.

Q Where you glad to get into exteriors?

A Oh, yes. I was. I enjoyed interiors, but, I think, I've always had a leaning towards the exterior of the car.

Q I've noticed that. There seems to be sort of a sigh of relief when -- although they enjoy working in interiors, it's nice to get out and work on the exterior of the car.

A Well, interiors is extremely difficult. It's a very, very difficult project, because you have to package the radio, the heater, all the controls, and it's not that easy, and, especially, you get into the seats and the door panels, and there's countless items that have to be looked into.

Q Tiny, minute details?

A Yes, even to a coat hook, which you might spend weeks on. So, it's very involved, very complex, and, I think, that it doesn't give you the freedom that you have on the exterior of the car. And, it's too bad, they're kind of the unsung heroes, because a person lives in the interior of the car more than he looks at the outside, but the outside is the emotional part of the whole business. It's strange.

Q It wasn't until just recently that people began to think about ergonomics.

A Yes, they're getting into that quite heavily now. Ford is. Well, everybody is. The Europeans have had that for quite some time, and it's about time we started to think about the customers' comfort, reach and vision.

So, moving on, I got into exterior studios, and, at that time, we had what we called a Meteor. Remember the Meteor?

Q Yes.

A I worked on the '62, '63 and '64 Meteor and also on the '64 and '65 Mercury.

Q At this point, in the mid-to-late 'Sixties, what is the situation in the design center in terms of administration and the people you work for? Is it a happy, productive atmosphere?

A Yes. Gene Bordinat was vice-president, and things seemed to be going quite well, and we were working a lot of overtime -- working very hard. In my recollection, I don't recall any problems.

Q George Walker has left, and much of the inter-company warfare has subsided?

A Yes, correct. That was kind of a peaceful period. So, from there I went into Ford exteriors, and, at that time, I was promoted to manager, which I was quite thrilled about. And, oddly enough, a side story on that is that Joe Oros was the chief stylist, and Joe -- you know, you could write a book about Joe. If I knew how to write a book, I would. Super guy. Completely devoted to Ford Motor Company.

Q Tell us about Joe.

A Well, when I got this promotion, and I didn't know I was going to be promoted, we were all packed ready to leave the house on a three-week trip to California on the train. I figured the children had never been on a train before, and this might be the last chance. We were just ready to go out the door when the phone rings, and it's Buzz Grisinger. He was my boss in Lincoln-Mercury at the time. "Bob," he says, "I'm calling because I'd like--well, we're all sitting here, except the principal is not here, and that's you. You've been promoted to manager, and you're going to work for Joe Oros in Ford exterior." Oh, well, you know, of course, my heart was just going.... And, I said, "Well, gee, Buzz, I'm ready to go out the door. You know, I'm going on vacation."

He says, "Well, Joe Oros does want to talk to you. I would call him if I were you." So, I said, "Just a minute, Mary Ellen," to my wife. Before I could call, the phone rang, and it was Joe. "Well, Bob, I understand you're going to be working for me. That's fine. But, I understand you're going on vacation!" I said, "Yes, Joe, I'm ready to go out the door now. I have to catch a train." "Well, can't you come in and talk to me. I have some things I want to go over and discuss with you." And, I said, "Joe, I can't." You know, you can imagine the bind I was in. Here I'm just promoted, and I was going to work for this guy, and he wasn't making it any easier. "Well, I don't understand it. Three weeks," he says, "you're going for three weeks, and I'm not going to have you for three weeks? Well, you know, we have a lot going on here in Ford studio, and there's a lot of things I want to go over with you. Well, that is, indeed, unfortunate. Well, I want you to report to me first thing in the morning when you get back from your vacation." Okay, so you can imagine for three weeks I had this on my mind! So, I get back on that Monday, and ran right to his office. He didn't remember! He says, "What? I wanted to see you? About what? Well, you just go down to the studio and get settled." For years after that, I was never known as Bob, I was known as Paul to him.

Q Why was that?

A Who knows. He never got anybody's name straight.

Q Was that one of his idiosyncrasies?

A Yes. He had a party at his house one Sunday for all of us, and I can always remember watching him behind the screen door. He was reading from a card--"Hello, Bob and Mary Ellen." He could never remember a

name. If we were going to discuss moving or promoting people, he had to have cards up on the wall with the photographs of each individual.

"Now, who's that? Oh, yes. All right, I know him."

At one time he was with Ford of Europe, and he'd come back on visits now and then, and as he'd be going down the hall, he would say, "Hello, Paul, how are you?" And one time he said to me, when he was on one of these trips back, "Bob, how are you, Bob. See, I got it right!" But, in the afternoon I saw him again, and he said, "Hi, Paul!" But, that was the kind of guy he was.

Q Tell us about the regime at the Ford studio under Oros. Everyone mentions him as a really key person during that period.

A He was. He was a hard worker. He was so devoted to the company. He wouldn't even -- I mean, if some crisis came up on a car -- he even cancelled a trip to Europe once, as I remember -- a vacation with his wife. And, I remember Gene Bordinat saying, "Now, look, Joe, you go!" He didn't go. He canceled the whole trip. He would not leave that place. We used to work five hours overtime a night, four nights a week. And we didn't work Friday nights, but we worked eight hours Saturday. I, at that time, managed [the] Galaxie studio after I was in the preproduction area for a short time, where I worked on the '66 Thunderbird roof, some advanced Thunderbirds and Fords. Then, he transferred me to Galaxie studio, which, at that time, was quite an honor to have. The Galaxie was the car. That was top of the line, and I remember on Fridays I'd be there trying to write notes on what occurred. We had our shows on Fridays.

A I'd be the only one left in the studio. Everybody else had gone home because there was no overtime on Friday. And Joe would come in

around 6 o'clock, real forlorn -- so upset that people had left him and wouldn't work Friday nights. You know, he would have worked seven nights a week, Saturday and Sunday if he could.

Q You got paid for this?

A Ah, no. That was my other problem. I remember that particular year when I got promoted to manager, I didn't get paid overtime, and I put in over 950 hours overtime that year and just lost it. I made less that year than I did five years previous! But he was really so devoted you couldn't help but get caught up in his enthusiasm, except that he demanded so much -- we used to do five or six proposals of one thing. It might be a body side molding. There was just too much -- too much work.

Q Very tense?

A Yes. I remember the first week. I had just taken over the Galaxie production studio from Jim Sipple, and I had no idea what he had been working on. I saw some wooden moldings on a table and some parts here and there. I had no idea what they were for. What I found out was they were for preliminary approval of ornamentation on the Ford car line for 1966. So, we get in the showroom, and it was just bedlam. It was terrible. Don Frey was head of Ford Division at that time, and he and Joe just went round and round on this ornamentation to a point where even Don Frey went up and was relocating lettering on the car, which a guy in that position should never do. And this meeting went on till about 6 o'clock at night, I think, and it was just a terrible meeting. And everybody left except Joe and a young assistant I had, and Joe sits me down, and he says, "This has been one of the worst days of my life."

He says, "Next week we have to go for final approval on the ornamentation on this car and all its series. If you don't come up with the best ornamentation I've ever seen, you and I are both going to Siberia!"

So this young fellow was taking notes like crazy -- my young assistant -- and I spent all day Sunday working up an ornamentation plan at home, and I had all of my notes, and then I had this young fellow's notes, and I'm reading through his notes, and at the bottom it said, "Only God can save us now!"

Q Who was this young man?

A Chris Miller.

Q Is he still around?

A No. He went to California and became a graphic designer. So, that just broke me up. Anyway, it worked out okay. We did sell the ornamentation finally once I got....

Q Who would you be selling it to?

A Well, that would be pretty high -- Don Frey, I think, was general manager of Ford Division. I just got caught up in all of this as a poor, innocent, brand new manager. So, then, I [was] beckoned one day to go over to World Headquarters for an interview for some kind of a new job.

Q This is in the mid-'Sixties?

A Yes. This was 1965. I went over to World Headquarters and met this gentleman named Paul Burns, and I spent about three hours in his office. Finally, after the three hours, I realized this was a whole, new department called corporate identity and that Mr. Ford wanted to do

something about the identity of the company. At that time, corporate identity programs were quite popular. Most large companies were getting into it, and Mr. Ford felt we had some problems. So, I interviewed for the job, got it, and was promoted again to Corporate Design Manager, went over there and set up a whole design department. I had to order supplies, get designers, the whole bit. But as it evolved, I found out that the company really didn't want me or my people to do the designing. They wanted some famous, outside firm. The first thing was the Ford trademark. We thought, "What can we do with the Ford trademark?" So, they hired Paul Rand, who's a famous graphic designer. I think, he's in Connecticut. He's designed the Westinghouse symbol you see on television. And he worked for I don't know how many months. As manager, he wouldn't even allow me to go into his shop. I couldn't visit. I wasn't allowed to see anything he was doing.

Q He came out here to Dearborn?

A Yes. He would come out here now and then with the development of his work. He kept his place in Connecticut, but I couldn't go out there. He didn't want anything to do with me. Well, anyway, he finally came up with this proposal, and it was in a book form -- a thick book. History of the trademark, why he felt it should change, why he felt his design was the right design for Ford. And Ted Mecke, who was vice-president of public relations then, was in a quandary as how to present this to Mr. Ford -- formally or informally. In those days Mr. Ford used to come into Ted's office and chitchat, so he decided just to leave this book on his conference table, and Mr. Ford came in one day, and then Ted was able to casually bring him through it. Mr. Ford would have no part

of it. He said, "There's nothing wrong with the trademark of this company."

Q What had Rand proposed?

A He had come up with -- he kept the blue background and white lettering, but it was completely restyled, and he did it in the form of a racetrack. He took the capital Ford F, brought it down and around into a racetrack shape. Well, it looked like a Luden's cough drop to me. And Mr. Ford rejected it, and I was quite happy about that. Then, I got a few people on my own. One of my designers, Hank Fine, who came from Lippencott and Margolies who worked on the Chrysler corporate identity program, was a very good graphic designer. He's still with the company. And, he says, "Bob, we have to do something with that trademark. You know, the lettering isn't quite right. The Ford oval isn't proportioned exactly right." I said, "Yeah, but, you know, what happened. Mr. Ford rejected Rand's proposal." He said, "Well, I don't mean anything that radical. Just kind of tune it up -- clean it up." So, he and I worked on that for a long time. We finally got it to where we thought it was right and went to Ted Mecke with it. Of course, Ted Mecke was reluctant to approach Mr. Ford again on the trademark, but he did, and Mr. Ford had no problem, because we showed him how we could reduce the trademark quite small, and still you could read it, whereas, the old one you couldn't. So, we were able to make that refinement on the trademark.

Then, we got Unimark. Unimark was a design firm in Chicago.

Q You kept the Ford script?

A We kept the script.

Q It was a good idea.

A Right. We just modified it so it would print properly and read properly.

Q A little less archaic?

A Right. And that Mr. Ford accepted.

Ralph Eckerstrom was the head of Unimark in Chicago, and we selected him to do our major design work -- stationery and so on. And he established offices in Southfield here, staffed it with a design director and people and so on. And that was rather stormy. You know, -- industrial designers regard automotive designers with contempt.

Q Do they?

A Yes. We're not designers in their eyes, and this is unfortunate because I tend to think they're a little bit blue sky in their thinking. They don't really get down to the nitty-gritty as we do. So, there was friction there. There were problems with me as design manager working with them. But, we overcame it. I finally couldn't get along with one design director, and Ralph put in another one, and he was better. Eckerstrom was quite well known in the graphics field. I think he did the American Airlines' identification that you see today. That is theirs. They've done a lot of big....

Q Did you and Hank Fine come up with that sans serif -- modern block [type] which was used in [dealer] signage?

A Oh, the helvetica -- the helvetica type face.

Q Right.

A I'm not sure. No, I think, Unimark recommended that, and, of course, Hank supported it, because, at that time, helvetica was a very popular type face -- very readable. And that is what went on the

signage. They did the major portion of the company signage. My people did the dealer signage. The Ford and Lincoln-Mercury signs that you see now at dealers -- the bands that go around the building --that was all ours. And we were proud to be able to do that internally. I don't know why the company felt that an outside design firm was important, unless they felt that only an outside design firm could do the job properly. It was a big job. We couldn't have done it all alone, that's true.

We had a sign farm in back of World Headquarters. I don't know if you remember seeing that or not. It was -- we built these mock dealerships. We actually built the buildings, put the signs up. We had the big truck sign, we had the Lincoln-Mercury sign, the Ford sign. This sign farm was interesting because we used to have many reviews out there. Mr. Ford would come out. Lee Iacocca came out. We used to have night reviews to see how the signs looked at night. One night Lee Iacocca came out after a Tigers' ball game. It was a hot night, and we had some beer there. He had a beer with us. He was walking around with a can of beer looking at these signs. It was super. But, there was a dispute as I remember -- let's see, Ford was the corporate blue, or lighter blue. A little lighter than the corporate, and Lincoln-Mercury is red and black. Mercury is on a red background, and Lincoln's on a black. And, for some reason, and, again, this was Don Frey -- he wanted the red for Ford and not this lighter shade of blue. There was a big dispute there between Lincoln-Mercury and Ford Division which finally got straightened out.

Q You kept the corporate blue?

A Kept the blue, yes. The corporate blue, of course, was in the Ford oval portion of the sign and the lighter blue behind the Ford. I

can't remember why he wanted red at that time, but, anyway, that finally got settled. But, there was a lot of things like that.

Q At this point, were you involved with the Mustang at all?

A No, because the Mustang was being done while I was with the corporate identity office. But, again, with corporate identity, the painting you have on the wall reminds me of the ore boats. Mr. Ford decided that, "We have to do the ore boats, too." So, we came out with many proposals of how we could identify the ore boats. We had corporate blue hulls on some proposals, if you can believe. A lot of different schemes. We had to go over to see this Mr. Kahn, who was head of Steel Division at the time -- Paul Burns and myself. They knew what we were up to, and they didn't want to bother with us. But, we went over there to the Steel Division one day, and Mr. Kahn was having a meeting with his staff. It was a huge office, and his desk was right in the middle. It reminded me of a Mafia Don.

He kept us waiting about an hour. Finally called us in, and his people were sitting around the wall in chairs. "Well, Mr. Burns," he said, "I understand you have some proposals here to paint the ore boats. Gentlemen, this is Mr. Burns, Mr. Zokas. I don't know what they're up to, but let's see what they have here." So, I got out these renderings and started going through them. Well, we heard all these snickers and laughs, and, oh, it was terrible. It was just a terrible meeting. I wanted to get out of there so bad. This Kahn just ridiculed us something terrible. And, he says, "I suggest to you that you go on board one of these ore boats. You talk to some of my people, and they'll tell you what the problems are with what you're proposing here."

So, I did. I contacted this fellow. I forget his name now. He was manager of the ore boats at the time. He took me aboard, and he pointed out all the problems they have with the boats. The reason they're painted black -- the hulls -- they use a very inexpensive paint, as the paint is scraped off constantly by ice, and they can't use an expensive paint, because they just roll this paint on with huge rollers. Then he said, "You can't -- we can't change the smoke stack because Mr. Ford has always wanted this tan and black color scheme." I thought he was talking about Henry Ford II. It turned out it he was talking about Henry Ford I! So, anyway, we weren't getting anywhere with this Steel Division at all. And, one day Ted Mecke was flying to New York with Mr. Ford -- and Mr. Ford said, "Well, Ted, how's the corporate identity program going?" Ted said, "Going quite well, but we're having a little trouble with the ore boats." And Ford said, "What do you mean?" Ted said, "Well, they don't want them touched." "Is that so?" Well, the very next day we get a call, "Come on down -- do anything you want -- anything." The door was open! Mr. Kahn got the word. But, listening to them, we didn't do anything ridiculous. We did go with a blue smokestack.

Q Very tasteful, as I remember.

A Yes. And, at that time, it was just the blue smokestack with the white Ford oval on it. Then one of the captains started complaining. He said, "Everybody else on the lakes is laughing at us with this blue smokestack." And, one of the fellows -- a crew member of one of the boats -- sent in a suggestion. He said, "I've been really studying this blue smokestack with a Ford oval...." And he said, "Why don't you put

on a white stripe around the funnel." He was thinking in terms of a racing stripe. Remember the GT Mustangs and so on? A racing stripe -- what an idea! That did it! Just putting a white band on below the trademark did it. The captains were happy, everybody was happy, the young fellow got an award for the suggestion, and we were happy.

But the whole corporate identity program was a hassle, and if we didn't have Mr. Ford backing us, it never would have happened. People just resist change. They just didn't understand -- they didn't want anything to do with it. "Don't talk to me about signs, I've got a business to run here. I've got a plant to operate." It was a constant battle. The first sign we put up out in Troy [Michigan] at the tractor facility -- if you have ever been up that way, you would have noticed residential homes across the street. We went up one night to see this sign lit for the first time, and we were all out there admiring the sign when a woman came charging across the street very mad. She said, "What do you mean by lighting up the neighborhood like a Christmas tree? Don't you know there are houses across the street? Now you get the... out of here!" Oh, boy, she just had a fit! I believe the neighbors didn't like that sign, and we left it unlit just because of that.

Q As I remember, the tractor had kept the old oval quite religiously.

A Yes, they did.

Q It was one of the few parts of the company that still kept it?

A Correct.

Q I'm glad you kept it, because it gives a sense of continuity -- a sense of history.

A That's right. And now we've put the Ford oval on all the Ford vehicles as well. Europe started doing that first. But, of course, Europe didn't have the Lincoln-Mercury/Ford Division problem. It was just one car. Here we've used the oval on the trucks, too, for several years. But it was just recently they decided that Ford Division cars should have the Ford oval on it. Lincoln-Mercury is tougher to do. You put it on a scuff plate or someplace. It says "Product of Ford Motor Company." So, that was a kind of Corporate Identity.

I was reading a blue letter one day when I was still manager of the Corporate Identity Office, and I saw that Don Kopka had been promoted from design exec to director, and I was wondering who was going to get the promotion to design exec to fill his spot?" Well, it turned out to be me. Gene Bordinat had always told me, "Your umbilical cord is never severed. You're always part of us. Remember that." So, he was true to his word and called me back, and I started with the trim and color department at Ford.

Q Was this interior design?

A Yes. I didn't have the interior studio. At that time they had an exec in charge of just trim and color -- a design exec with a director over trim and color and interiors.

Q And you were the design executive at that time?

A Yes.

Q You actually did most of the work?

A For trim and color, yes. And that was under Don Kopka. Gene Bordinat, of course, was the vice-president.

Q How was it to work for Kopka? Was he a good administrator?

A Oh, Kopka's a super guy. Don Kopka is just great. Never a problem with him. Usually anything you want to do, "Fine. Go ahead. It looks great. I like it. Let's do it." I mean, it's a very positive attitude. He leaves you alone pretty much. A good man.

I wasn't there too long. Only 'till February of '69 -- from August. So, from there I was transferred to the Ford design office -- exterior studios.

Q When you were in the interior design, what models did you work on?

A It would have been the 1969/'70 car lines.

Q Did you enjoy working with fabrics and paints?

A It was interesting. But, I still think my main interest is in exterior design. In trim and color, you're really at the end of the "tube." And, by that I mean, interior selects fabrics for their seats and for their door panels. They select paints. Paints have to be sent to Florida and fade tested for a period of time. All the fabrics have to be tested by our labs for durability and flameproof. Well, that's fine as long as you follow the normal timing pattern. But, what happens because of competitive actions or whatever they may be, you end up changing fabrics or changing colors. Then, this makes the whole system late, and the final tube is trim and color. They've got to get everything out in what they call 446 charts where it shows all the combinations of colors that you can get, the tape stripes, the vinyl roofs and the interior colors. So, it puts a terrific burden on them. There you always have this time pressure on you. People are always calling and saying, "Well, you're late, you're, late, you're late. You've got

to get this out." And, it's a very complex area in trim and color.

[We're the last] from the design center to get out into the system.

Q We had a gentleman in here who worked in color and trim for many years. I'm trying to come up with his name. He enjoys the work. He said he worked for many years with suppliers, and he was at the other end, I think. You were at the design end; he was the guy who did the work with the suppliers. He gave us a very interesting overview of the work, presumably -- when he took over where you left off, once the designs were executed and approved.

A Was it Jimmy Hothem?

Q Yes.

A Jimmy just retired. Jimmy had worked for me at the time. I was in charge of the overall department. He had fabrics. Hermann Brunn had paints and colors. They tried to involve me with the suppliers, and I didn't care for that end of it. I wanted to stay away. I wanted my people to deal with them, more than myself, so that if we were going to have a problem, I could confront the vendor. If I get too chummy going to lunch every day, it would be difficult to do. So, I stayed away from that.

Q This was exacting work and many minute details?

A Oh, yes, it is really complex. I mentioned how interiors was complex -- trim and color is a bucket of worms by comparison.

Q Jim Hothem did say that it was very exacting work, but he seemed to enjoy it.

A Oh, he did. He thrived on it. And a lot of them did. A lot of them were professionals and good for that field. I was a designer, and

I felt I wanted to design cars. I didn't want to fool around with color chips and fabrics, but they felt it was important to have a designer up there to keep an eye on the design aspects of color and fabric.

Q Were women coming into this aspect of design at this point?

A Not at that point. They came in later.

Q Women were always perceived as having a very acute sense of color.

A Yes, and that has worked out very well. They did have one girl back in the 'Sixties, and she even wove her own fabric. She was a real fabric designer, and then she left. There was a period there where we had no women. Now, I believe, there's about four or five, and they are a very valuable asset. It's very important to have women in color and trim, absolutely.

Q You've been promoted to the exteriors now?

A Yes, and that was a promotion from the Corporate Identity Office.

Q And working with whom at this point?

A At that point, I went to the Ford exterior studio working for Dave Ash. Dave Ash was the director. At that time, I worked on the 1971 and '72 Torino. The '72 Torino being the all-new body for that year, and that was quite exciting to work on that project. This was also the Bunkie Knudsen era.

Q Can you expound on that?

A Bunkie used to like to have what we called his "Dawn Patrols," and that would be a review for him in the morning -- like 7:30 in the morning. Well, it meant our setup people --our millwrights and the people that set up the shows had to get up around three or four in the

morning, get in around five to set this show up in the courtyard for Bunkie. It was quite interesting, because he also brought in this Larry Shinoda from General Motors who, I believe, did the Corvette -- one of the models. Bunkie gave him a lot of power, and he really had Bunkie's ear. We hear he used to have breakfast with Bunkie before they came over to the design center. Larry ignored Gene Bordinat -- wouldn't listen to him, didn't care what he said or anything else. Then we'd be in the courtyard with Gene waiting. Larry would be at the lobby doors waiting for Bunkie to clue him in on what he was going to see, then he'd bring him around with Gene just standing there. It was really a very, very sad thing. I think Larry moved up too fast. He didn't know how to act at a manager level -- or didn't care -- and he just wielded an iron fist. I mean, he just told people he was going to do this and that, and he just ran rampant through the building, there was no control that Gene could put on him because of his connection with Bunkie. Bunkie had a very good eye for design.

Q Knudsen had just recently been appointed....

A President of Ford Motor Company. I think that happened about '69. Bunkie would go to the designers' drawing boards, see a sketch he liked, and just say, "Let's do that. We'll do that." Absolutely unheard of. But, the '71 Ford came out of that -- the '72 Thunderbird, '72 Mark under the Knudsen era. Very nice cars. He always said that our cars were only 80 per cent complete. Ford Motor Company cars were 80 per cent complete. And, I think, what he meant by that was that we didn't have the finished detail like the General Motors' cars have, and he would look, for instance, at a Mercury door trim panel and say, "Why is

this mylar?" Mylar is just a plastic. He wanted a diecasting. He would change a program right when it was running out of time. There was no time to do anything. He said, "This should be diecast." And, he was right. Everything he said was right. But, Ford is not General Motors. You know, a lot of things we just can't afford to do. But, I think he really exercised quite an influence in that era.

Q Were those early 'Seventies cars big sellers?

A Yes.

Q Design-wise, were they fairly good looking?

A Absolutely, yes. The Torino, for instance -- now, this is when we felt something was going on because we'd have a show set up in the courtyard -- I remember the Torino, specifically -- and Lee Iacocca would come over with his group and go through these cars, then leave. Then Knudsen would come over later. So, the two of them, obviously, weren't together.

Q On the same wave length?

A No, not at all.

Q In terms of decision-making, Bunkie had the final say?

A He did. He was president. But, I guess, Lee would just want to see what was going on or exert whatever influence he could, which he finally did. So, that was an interesting era, and, at that time, I did have the Torino car line and was happy to work with the '72 because it was all new.

Q Who's design was the Torino?

A The original design came from the special projects or advanced group, and that was Ken Spencer and Bill Cramer who worked on the car.

Then it was transferred to us in the production studio, so this is the car now. You've got to -- you work out the grille, taillights, the ornamentation and so on. They just do the basic shape. And then, in those days, competition was so strong that they're always afraid that the studio that had to pick up this car line would change it, and this usually happened. The people in the studio that inherited somebody else's design would try to make a change in the car so they could say it's their's. And, I decided not to do that. I thought the car was very good-looking and decided to stick as closely as I could to the original design. I knew I was being watched very closely on that by Bordinat. He'd come in every day to check the model, check the drawings, because, I think they suspected we were probably going to monkey with it. We never did. The car stayed as originally designed.

Q Is that called tampering with the package?

A Not the package. No, you couldn't tamper with the package, but you could tamper with the design. You might say, "Well, this line looks a little soft here. I'm going to sharpen that up a bit, and, I think, I'll raise the deck a little bit." Those are the things they watch for. Joe Oros was famous for that. He would never accept somebody else's design. He always had to monkey with it a little bit to make it his own.

Q When did Oros leave? Do you remember?

A I think it was around 1974.

Q So he's still pretty much at Ford design studio at this point?

A Oh, yes. I think, at that time he went to Europe. Yes, because I had just gotten out of the trim and color department. I went to work for Dave Ash, and that's when Joe Oros was sent to Europe.

Q At that point, he was probably one of the first to be sent there, wasn't he?

A No. Roy Brown was the first. He was the first one.

Q But this is still a fairly new assignment for senior stylists, is it not?

A That's right. It was very new.

Q Was it considered in the 'Sixties to be a plum assignment? I know Roy [thought] it was.

A I think it definitely was. I'm thinking about my own situation. I believe in the 'Sixties/'Seventies it was almost as if you had to go to Europe if you wanted to get anywhere in the company. Damon Woods went after Roy Brown, and then Damon Woods was killed right here in an automobile accident. I can't remember who went after Damon. I think it was Joe. Yes, Joe was next.

Q You're being moved around quite a bit?

A Oh, boy, did I move.

Q And, at this point in the early 'Seventies, you got a new assignment.

A Yes. And this assignment was special vehicles safety design.

I worked for Don DeLaRossa. He was the executive director, John Najjar was director, and then director for the safety studio was Dave Wheeler. Dave Wheeler also came from General Motors during the Knudsen era. Dave thought he wasn't going to survive either. Larry Shinoda didn't, but Dave was a different type of person. No problem with Dave. He's still with us, as a matter of fact. He has trim and color now.

Q This is the segment of...?

A They called it the special vehicles safety design. This would be like around 1970 to '73, and....

Q You'd worked a few months before in special vehicles?

A I did, yes. But, this is a hazy period because I was moved around quite a bit. The special vehicles and industrial design office was under Johnny Najjar, and then we were getting into -- we were becoming very safety conscious because the government was after us. So, we reorganized that studio, and it became the vehicle safety design and special vehicles office.

Q You switched the emphasis?

A Yes, we switched the emphasis. In that studio we worked on safety-related items, visibility -- anything the government had on the docket as a possible ruling for the future, and we would take those items, experiment with them and work them out. See what effect they had on the cars. They had one visibility ruling that was -- we knew was just impossible to execute in a production car, so we took a 1971 Ford convertible, took the roof off, and modeled a roof to meet the specifications of this government docket. We cast the roof and married it onto the convertible so you could drive the car. And, yes, you had visibility, but you sure wouldn't like the car. Because of their up-angled requirements from looking through the rear view mirror, a station wagon would have to be about ten feet high at the rear! It was that kind of thing. Then, we'd invite these people from the government in and show them. We'd say, "This is the effect your law would have on our programs."

Q What department of the government was this at this period?

A It was the National Highway and Traffic Safety Administration -- NHTSA.

Q Perhaps, you could pause a moment and give us a bird's-eye view of the difficulties as you indicated -- difficulties in working with these mandated safety requirements of the government.

A Well, I met this one fellow from the government. His previous job had been head of a fleet of trucks for the forestry rangers. Now, that's how much he knew about engineering and safety, and he just -- I hadn't visited his office in Washington, but somebody else did, and he was doing everything with just a wooden ruler. You know, like a grammar school ruler. That was what his tools of the trade were. That's the kind of mentality you were dealing with, and it was very frustrating, really, because some of the rulings were just absolutely ridiculous. They had no sympathy or feelings whatsoever for the implications on the auto industry -- what this would cost the buyer of the car or the manufacturer. They're a lot better now. I think we have better communications with them now than we did then. We didn't know how to deal with them at that time.

I also worked on a safety car. We actually built a safety car and crashed it. I wasn't out at the crash test, but I understand it was quite successful. We designed the whole thing based on a Ford Galaxie car and just built it up for the government -- it was for them. They were all there and witnessed the crash.

Q What features were built into that safety car that you didn't have on the current models?

A It was heavily padded on the interior: the instrument panel, the seats, the door trim panels, the headlining, and....

Q Some provision for the steering wheel column?

A Yes, we did that, too. And then also added structure in the front end for crash -- for higher than a five-mile-an-hour crash, certainly. I forget. I think it was a thirty-mile-an-hour crash at that time that it had to withstand. The occupants had to survive.

Q Five miles an hour always seemed unrealistic to me.

A Yes. The insurance companies used that because they claimed that most of the damage was done around three miles an hour in parking lots, and....

Q That's what the studies have shown?

A Yes. That's how they got into that because they said it was damaging sheet metal grilles and taillights, so they came up with a five-mile-an-hour bumper. One thing never mentioned was what happened to the car when it got hit at ten miles an hour. Then the cost to the insurance company or the owner was a lot greater. There's a lot of sophisticated pistons there that support the bumper, and when they're all destroyed, then it costs a lot of money to replace.

Q But the government was really interested in the occupants safety?

A Right. Yes, that was the main thing.

Q You had this tug a war between costs and design and the need for protecting the passengers?

A Yes. The studio's function was mainly to experiment and explore some of the rulings that the government was coming up with, so it gave management an opportunity to see the implications on the product. It was an interesting project to work on but frustrating, too.

Q Were you able to make any headway in terms of compatible safety features?

A The one with the ridiculous vision proposal went away. Once they saw what it did to the car, they backed off of that one, especially after seeing the effect on the station wagon.

Q I remember in '55 -- that -- just about the time you came -- Ford was coming out with a safety package for the '56 model, and quite visionary at the time.

A You bet.

Q And, unfortunately, somewhere along the line, either there was less than enthusiastic public acceptance, and the company backed off from it.

A It's true. In '56 Ford was pushing safety, and Chevrolet was saying, "The hot one's even hotter," and that's what sold. Nobody was interested in safety.

Q I didn't get seatbelts until 1960, and then I realized that I had to have them.

A I was putting seatbelts in my cars. Every car I bought, I put them in even before they were standard.

Q Ford was certainly a pioneer in that.

A But, Ford never gave up on it. We still continued the safety [package]. Just didn't advertise it that much. So, that was the safety studio.

Q Was it successful?

A Yes, I think so. It was something that was needed for that period, and then it went away.

Q You're moving back into the Ford studio at this point -- in the early 'Seventies.

A Oh, yes.

Q Was that a deliberate move? Was there a special assignment there?

A I went back into Ford studio and worked on the '75 Granada, Monarch, Mustang and Pinto. The '75 Granada was all new.

Q Whose design was that?

A The original design might have come out of DeLaRossa's advanced studio. I'm not sure, because when I went into this studio, it was at the stage for grilles, ornamentation and things like that, and I can't remember just who did the car originally.

Q It was a successful design?

A Yes. This is where I moved around quite a bit. I went from the Vehicle Safety Office to Ford studio, International and Special Vehicles, and the periods when I was in Special Vehicles and Industrial Design Office or International and Special Vehicles, I was basically in an advanced studio.

Q That must have been fun.

A That was, because we did all the family cars as well as show cars. We did all the show cars. And at that time we had -- it was called Car Craft. Car Craft was a car builder which was captive to Ford. They only worked on Ford items. Mike Alexander, who's now out at Sunroof [ASC], he ran the place for us.

Q They did your special show cars?

A All the show cars. There was a '71 Thunderbird we called the Tridon, and that was an exciting vehicle. I remember it had very unusual lighting. There was the Explorer. The Explorer was kind of a

truck -- an open-bed vehicle with a forward cab and a luxury Maverick called the "Estate Coupe."

Q Did that ever come off?

A No. But, the Maverick LDO did. The LDO became a production car. That car, what did we do to it? It was basically a four-door sedan, but we put a window in the rear pillar, so it became what we call a six light, and it was painted a pearlescent white. It had special bright moldings and unique wheels and tires. The interior had an unusual sew style -- the door trim and the seats.

Q What is that?

A That's the pattern of the design of the seats and the door trim panels. Iacocca saw the car. Joe Oros presented it to him, and he said, "Build it. Let's make a special series of the Maverick." So, the planners pushed it through the system, and all were told to build it just like that. Well, the engineers just went crazy because we had brass, chrome-plated moldings, we had chrome-plated door lock buttons. You know, there were things you just couldn't do in production. It had pearlescent paint. Now, pearlescent paint is not feasible for production. But, because Iacocca said, "Do it that way," the system was pressured to do so. But the planners finally came up with a cost of doing it his way and finally had to back off. Although it did get a unique but feasible white paint that they put it into the system. Not unusual, certainly not a pearlescent. But the interior trim remained pretty much the way we designed it. It became a very successful car. And as mentioned earlier, we had a Maverick Estate Coupe. That was another show car. It was just an unusual kind of luxury. It had a very

wide C-pillar. A closed-in look. A very private, personal kind of car. Actually, it had a roof similar to the original '39 Continental. It even had a little bustle back trunk with straps on it.

Q What ever happened to it?

A I don't know, but the guy to contact over there [Ford design] is Tom Land. He worked with me on most of these projects.

And then we did the Sportiva, the Sportshauler I mentioned to you before. Sportiva was a Pinto. It was similar to what the EXP is today. We made a little two-passenger coupe out of a Pinto. It was really cute. That is just some of the show cars that were done at that time.

Family cars were less my responsibility. We did a special Pinto for Mr. [Henry] Ford II. His favorite color was candy apple red. All his cars had to be this special candy apple. There were many shades of candy apple, but this had to be a certain one. We had an outside supplier build it who really didn't know what he was doing. Tom Land and I spent the whole weekend out there. We spent all Sunday night. I called DeLaRossa in the morning about 9 o'clock, and said, "I think the car is finished." This guy had a bucket of bolts he'd borrowed from his father's garage and dumped them on the floor looking for nuts and bolts to put the car together with. I said to him, "Where are the nuts and bolts you took off the car?" He didn't know. We wanted black windshield wiper arms, and all he did was take a spray can and sprayed the wiper arms. I said, "That isn't going to work. The paint's going to peel off." Tom and I were just having a, oh.... The next day it had to be delivered. And the seal on the back third door. I don't know what they did with it. They lost it or something. So this fellow was

out in the parking lot 3 o'clock in the morning pulling the seal off his Chrysler Newport to see if he could make that work!

Tom and I were just beside ourselves. We didn't know what to do outside of build it ourselves. Well, the car was delivered, but it had to be gone over again back at Ford. We had to send it over to the experimental garage here and get it fixed properly. What a nightmare! And then they came in with a revised one. They wanted much more money because of all the time they spent on the car. Boy, that was another hassle. It really wasn't a pleasant experience. Not that one. There's been others that have been a lot better.

Q Henry Ford II liked the Pinto.

A Yes, he did. He liked that car so well that he asked us to build another one just like it because the Shah of Iran was a friend of his. The Shah liked it so well that we built one for the Shah, and then engineering had to really work on the car because of the heat over there in Iran. They had to make sure the car would cool properly, so they did special things with radiators. But, the Shah had one just like Henry's. It was a duplicate.

Q It must have been great fun.

A It was. It was a great experience.

Q An interesting interlude for you?

A Yes, compared to the production studios, it was good. Then I went back to International Special Vehicles and Advanced Concepts. That was 1976. I spent a short time there.

Q You were needed in several different places at the top of the 'Seventies.

A At that time I worked for [Don] DeLaRossa. DeLaRossa would always seem to get me back into his camp. That's why it's -- I'm having a hard time here, Dave, because it's all very hazy. I was back and forth almost doing the same thing for a number of years.

Q Don [DeLaRossa] [valued] your special talents in these advanced vehicles?

A I get the feeling that he did, yes, which I was flattered by, and I appreciated. I think, really, the biggie now -- the next one to go on to -- is the light car exterior design office. That was from '76 to '78. The biggie there was I was promoted to director, and in the Spring of '76, they decided to bring Jack Telnack back from Europe. Jack was vice-president of design for Ford of Europe.

Q Who had he succeeded over there?

A Joe Oros, and he had done a fine job on the Fiesta. That was Jack's car.

Q [Henry] Ford's favorite car.

A Right. And, also, he did a fine job on facelifting the European Granada, so Jack was a fair-haired boy. Mr. Ford thought a lot of him. So, Gene had to bring him back. And I didn't know this, but I received a call from Jack one day from Europe, and he says, "Bob, I want you to recommend to me some managers that we could have in this department I'm going to run and some designers." And I said, "What are you talking about?" "Well," he says, "I'm coming back, and I want you as my exec." I said, "Well, gee, that's pretty flattering." He said, "I talked to Gene Bordinat and said, 'That's the way it's going to be. I want Bob Zokas as my exec.'" I said, "Well, gee, thanks, Jack. That's great."

Q Had you worked with Jack previously?

A Yes.

Q In what segment?

A Jack -- actually, he worked for me back when I had Ford preproduction. Back in 1963. He had just been promoted to design specialist at the time or senior designer, as they call them. And we had known each other back over the years, so I was quite flattered that he would want me. So, I did. I put together some names and built up a department -- a theoretical department -- and I called him back and told him about it. So, he came back in April of that year. In the meantime, he was running back and forth to Europe, so I set up a little studio, and we started on the '79 Mustang. The Mustang was already underway in another studio, and Jack had just come back with a whole different idea of how the car should be based on his experience in Europe, and that car went into survey the last minute. One of the last chances we had to survey the car before they had to decide. Then, we won. We won with that design.

So, we were quite pleased about that and did some changes to the car because, you know, the car was based on the Fairmont undercarriage, and, at that time, the package didn't allow us to slope off the hood. We couldn't get a faster windshield, we could not get more tumblehome, and Jack just went ahead and did it. Did a car that way -- the way he felt it should be. Tumblehome is the curvature of the glass. How much the roof curves in from the side view. And we put more tumblehome to the car, we lowered the hood, and got a faster windshield, and it sold. Somehow engineering suddenly figured out a way to do it. You know, they told us we couldn't change the apron. [What] we call aprons that run

from the windshield to the headlights. Well, lo and behold, we found out the it was a three-piece apron. Oh sure, they could change the front part. That would give you a lower hood. You know, these kind of games that are played drive you nuts. Once management makes a decision to do something, then suddenly the engineers find all kinds of ways to get around a problem and give you what you want.

Q Perhaps you could expand on that. The relationship between the designer and the body engineers.

A We have a good relationship now -- a good rapport.

Q But at one time it wasn't?

A That's right, and that's because we put on our business hat and realized that, hey, we want quality. It starts with us. We're [not] going to hang all kinds of ornaments and junk on the car [that will] fall off later. That isn't quality. So, we became more businesslike in that respect, too.

Q Previously, it was sort of a competition?

A Not a competition. Our problem is that we are always looking for something new. Such things as let's get flush glass, let's get aerodynamic headlights, let's get more tread, let's get the wheels poked out further. Engineering, generally, is reluctant to change. They won't go ahead and try anything new, and, I think, maybe, a lot of this is philosophy. I think that they're -- maybe it's the Ford culture. I don't know what, but if you screw up, you make a mistake, you're out. You know, rather than, well, okay, so you made a mistake, but, at least, you had three good ideas last month, and that's what we're after. I think it's an attitude, plus with all these suits they've had. The Pinto

gas tanks. I think the engineers are very gun shy. So, they're very reluctant to try new things.

Q They want it known that it's your concept, not their's?

A Right. So, they can find ways of saying it's not feasible. If planning doesn't want something, they can say it's too costly. They'll say, "That's \$9 over our assumptions." It probably isn't \$9 at all. It might be 20¢, but, you see, it's the old game. If people are reluctant to buy or if they don't want something, they will find ways of undermining you.

Q Did this situation give rise to the concept of the feasibility studio in the design center?

A No, that was just an easier way -- it was the centralizing of all the feasibility, which it no longer is now. We've gone back to the studios. We have a team approach to everything now. Like my design execs are head of a team, and the modelers and designers are under them, and the studio engineers on a dotted line to them. So, the whole idea is that, okay, this team is going to work on this project. You're going to develop this design, and you're going to carry it through to feasibility to the end, and to do what we call the surface layout release. And what that does is keep continuity, because the original group that designed the car is most familiar with it, and, therefore, they'll know if any little, subtle change occurs from the engineering drawings. They'll know every aspect of the car.

Q So there's no chance of a slip up?

A Right. Sometimes you would begin to lose your design intent in the feasibility studio. I'd go in there, and I'd see a clay modeler

making a change on the clay model. I would ask, "Why are you doing that?" He'd say, "I don't know, I was told to. I have the drawing here." "Who told you that?" "The engineer over there." I would say, "What engineer?" "He's not here right now." I mean, it was just like trying to get hold of a greased pig. I couldn't find out anything that was happening to my cars.

Q Now you've got a team approach, and each design studio has it's own feasibility setup?

A Right.

Q Does it work well?

A Yes. So far, it's working great. We've also taking over the aero -- we used to have a separate aero clay modeling department -- aerodynamics. Just in the past week or two, those modelers have been dispersed in the exterior studios, and now the exec is responsible for the aero model as well. So, we've got everything. We'll have the feasibility, the aero, the original theme and carry it through that way. And the continuity, I think, is so important. As soon as you get a new group of people involved in the program, they've got new ideas, they don't know what's happened in the past, they don't care, and that's where you run into trouble.

Q Whose idea was that?

A Well, it evolved. I had to share my studio with the aero modelers, and that was becoming a problem because one end of the studio -- one end of the building -- has the best bridges -- the most accurate bridges. My large car studio had a couple of cars coming up to go into those [styling] bridges, and they were being taken up by the aero modelers.

So, I finally got what we call the top team: Jack Telnack and the directors meet. In the staff meeting I just told them, "Look, I've got a problem. These cars are coming up. I need those bridges. We have to disperse the aero modelers or do something." So, the decision came to do that.

Q Bridges play a large part in....

A Yes. They're the heart of the business.

Q Are they fairly sophisticated now? Has the technology improved in recent years?

A It has, but we don't have that equipment. Ours are still the old bridges. The same bridges that were used back in 1955.

Q Is the problem cost, or...?

A Yes. Tremendous cost to replace all of them. But, it's a problem because you just don't get the accuracy. The bridges go out of adjustment, we have to get the millwrights to readjust them and check them out. All the modelers are just crying for new equipment, but right now it's too -- we're just getting out of the slump, so I don't know when -- maybe they'll be able to replace the equipment some day. But, it's a problem because half the building has bridge plates or rails that sit above the floor, and only in this one area of the building are they flush in the floor and accurate. And the other bridges can only be used for theme development because you can never do an accurate model on them.

Q There's a traffic jam?

A Yes, and that's what happens. I had to bring some models from my other studio which they're checking right now, and they're finding all

kinds of discrepancies. So, it's a serious problem of inaccuracies in those other bridges.

Q The same economy program ditched the wind tunnel you had scheduled over on Oakwood [Boulevard in Dearborn].

A Yes. I think that's coming back around.

Q The pilings are still there.

A It won't be built there, oddly enough. It's going to be someplace else in the complex. I don't know. It looks like that's becoming more positive every day. I think we'll be getting the wind tunnel.

Q It must be a logistics problem going to where you are [testing] at the University of Georgia?

A Yes. Georgia and Maryland with our 3/8ths.

Q Does General Motors got one at the Tech Center?

A Yup. Sure do.

Q Have they got the newest bridges also?

A I'm sure they do. I don't know what they've got out there. They probably do.

Q I interrupted you at a critical point. Jack Telnack has asked you to come out as his design exec for what program?

A Well, it was light car exterior, and then the end program was the Mustang, and we got that through. Then something happened. I was with him through January of '78, and then I was called again by my friend Mr. DeLaRossa to join him in the Advanced Vehicles Concepts Industrial Design Office.

Q What is DeLaRossa's position at this point?

A He was executive director. So, I left Jack, and I went back with Don. But, this time it was a little different twist. I had the

advanced studio back here, and he told me that he was going to involve me in the Ghia operations. Now up to that time, Don DeLaRossa had protected that Ghia operation -- nobody get near that. That was his. That was his baby. So, I was surprised to hear him say that he was going to involve me.

Q Now, what was Ghia doing for Ford at this point?

A At that time, Ghia built -- I think they still do -- about twelve cars a year and various kinds of cars. They were going to do what they call an epplewood. Epplewood is a form of plastic material that they put over Styrofoam. It hardens, and then they can sand it, and it becomes like a fiberglass model. An epplewood model is a static model. It just has a dummy interior. They also built driveables -- steel driveable cars. They have the facilities there to do both.

Q This in Turin [Italy]?

A In Turin, and it's just fascinating to see these craftsmen turn out an automobile, to pound out the sheet metal and bend it, twist it, weld it -- it's just unbelievable. They build up a "B" pillar and hang a door on it, and the doors will work perfectly -- a one-off car -- incredible! So, they did projects for us back here that could be the program that you're working on at the time. This would be back in '78, so it could be a 1980 program. We'd give them the package drawings, and they would develop their own designs. That was supposed to be our "Think Tank." Fillipo Sapino was the manager of the operation. He would always call it Ford's "Think Tank."

Q DeTomaso was not involved with Ghia at this point?

A No, no. He was gone. It's the same facility that DeTomaso had and did the Pantera in.

Q Did you [work on] the Pantera?

A Yes. Just some facelift work under DeLaRossa back around '74.

Q DeLaRossa had been involved in that?

A Oh, yes. Very much so.

Q And DeTomaso at this point was no longer with Ghia?

A No. Then Fillipo [Sapino] was hired and put in as managing director of Ghia under Don DeLaRossa. Then in April of 1978 Don Kopka, Don DeLaRossa and myself went over there, went through the Ghia facility and also went to the Turin auto show. I guess, that was my indoctrination. This is what I was going to be doing.

Q What assignments did they have for you when DeLaRossa asked you to come to work in the studio?

A It was still rather hazy as to what I would be doing at Ghia. You know, he was always so protective of Ghia that -- I wasn't sure what he meant. I don't know, am I going to run it? Am I going to go there now and then? Am I going to take a peek or what? And he was so clever, he never would tell me. But, anyway, I was supposed to go over with him right after Memorial Day, 1978. And, at that time, something happened, and Don DeLaRossa was retired from the company, and Don Kopka took over the Special Vehicles and all that, so I worked then for Don Kopka.

Under him we started the Probe I. The Probe I was my car, and we had a young designer then, Dennis Rierdon, that I hired from American Sunroof. He'd come up with the concept, and we put it together in clay model form. Bill Cramer was design manager. And, I get this idea to involve the building. I get the aero people, and I said, "Hey, look, we have a car that has the potential for good aero. Why don't you guys

work with us and see what we can get out of this? Let's get the lowest drag number we can." We called the interior studios and asked, "Look, why not do an interior for the car?" And I talked with DeLaRossa and Bordinat about it, and they agreed that it was a good way to work. So, in other words, it was kind of a joint project. Really, the forerunner of the current team concept.

We started the exterior, we got the engineers involved and the interiors studios, and we got that car down to .25 cd, which, at that time, was pretty darn good. Then they decided, well, let's involve Ghia. Let's have Ghia build a driveable model of this car, and we can experiment with it. We can drive it around the track and use it for publicity. So, that involved [Sapino], and he built the steel, driveable version of it.

Q So, the first Probe I was really -- the driveable prototype was Sapino's from your design?

A Yes. Now, the car that we showed at the Geneva or Frankfurt -- I think it was Frankfurt -- was the fiberglass model. The first model ever done, and then after that Fillipo built the steel driveable.

Q It created quite a stir.

A It sure did. Even the German newspapers [had it] on the front page, which was unheard of, an American car on the front pages of a German newspaper.

Q First time an American car appealed to them?

A Yes. So, we were quite pleased with that, and, then, of course, that just instigated Probe II, Probe III, Probe IV, and V.

Q Can you give us an idea as to how this sequence of Probes fitted into the company's/the [design] center's thinking at this time?

A We decided that aero was going to be our thing.

Q Who decided?

A Jack Telnack and [Don] Kopka.

Q Jack [had] brought it back from England?

A No, I don't think so. Well, maybe, a little bit. But aero really got a boost when we started the Probe. I'd say back in '78 and '79. In that period.

Q You and Don Kopka and Don DeLaRossa?

A Yes. And, I also think it was Don Petersen. Don Petersen became the....

Q Had been with Ford of Europe?

A And he became president of [Ford]. And he came over one day shortly after becoming president just to go through the building with us to see what we were doing. He went through everything. Spent all day. Interiors, exteriors, instrument panels, door panels, you name it. And he finally said to Jack, "Is this what you want to do? Are you happy with what you have?" And, Jack said, "No, not really." Mr. Petersen asked, "What would you want to do? Why don't you show me what you want to do." So, that's when we get off this very boxy, square look, and that's when we decided we should have a theme for our designs, and we should have a reason for them -- a functional reason -- and aerodynamics certainly would be a functional reason because now we're into this cafe problem. We've got to keep on improving our corporate average fuel economy, and what better way than through aero, which won't cost you anything to do. Just design the car right, and you may save one or two miles per gallon.

That's how that all started. It was Petersen giving us the opportunity to do what we wanted, what we felt was right in design, and it was also the Probe I kicking aero off. We decided to try and improve aero in our advanced vehicles. Then, whatever we come up with could be used in the production programs.

Q It was a very convenient [and] inexpensive way to [attain] your fuel economy [level]?

A You bet. You can save a lot of money. You don't have to redesign the car or go to exotic materials. It's just the shape of the car as it goes through the wind.

Q Aero had been around for years?

A But, I don't think anybody put that much emphasis on it because gasoline was 30/40¢ a gallon. Nobody was really worried about the cost of gasoline. So, it was the Arab [oil embargo] in '74 that did it to us.

Q This must have been an exciting time in your career...?

A It was.

Q At the beginning of what turned out to be a very important segment of design history.

A Yes. And it was very interesting to work with the Ghia studio. That was quite an experience, because the Italians are -- it was just a different way of life. They're more laid back, and Fillipo [Sapino] was always kind of laid back, and I was always hot to trot. You know, what's it going to be, and what are we going to do here, what are we going to do there? God, we'd be sitting in his office in the afternoon, and he would just kind of doze off.

Q Siesta time?

A Yes.

Q Was Tom Tjaarda, Jr. there at that time?

A Tjaarda had just left. We saw him a couple of times at the auto shows, and Fillipo had wanted to avoid him. There was something that went on before then. Tjaarda worked at Ghia as kind of a consultant, or part time. He wasn't full time. I thought he was, but Fillipo told me, no, he was only a consultant. But Fillipo felt he didn't need him because he felt he had the abilities. It was one of those things.

In '79 I took my wife over to Europe on a trip to Ghia and then to the auto show in Frankfurt. We were somewhere in Switzerland, and I got a call from Don Kopka, and he said, "Bob, you're transferred." I said, "What? What do you mean I'm transferred?" He said, "You're going to be director of small car and truck exterior." That's the way it was. So, in '79/'80 I end up working for Gale Halderman. Gale Halderman was the executive director.

Q What about Ghia?

A It's still going strong. Dave Rees is running that under Don Kopka. See, when we split in 1980, it was no longer just Design Center, it became North American Design and Design Staff.

Q Do you have any perceptions on how that came about?

A Not really. That was the time when Gene [Bordinat] retired and....

Q Telnack was coming up strong?

A I don't know. He wasn't that strong, I didn't think. No stronger than Gale Halderman or Don Kopka. So, that was kind of a surprise to me

when that split occurred, and I don't know why it did, and I don't know why Don Kopka was made a vice-president and Jack wasn't, because in this advanced work, doing advanced properties and working with Ghia, that's fine, but the production end of it, the responsibility there is much greater to me. I mean, that's it. You're putting a product out there that's got to sell or else.

Q So, the vice-president's [responsibility] should have gone to the production side?

A That's the way I felt. That's my own observation.

Q And that the Advanced Studio could have kept its own orbit?

A I ran that whole operation myself as the director. Now, granted, it has expanded, and there's more emphasis on it, because Don Petersen is very much interested in Don Kopka's operation. So, there's a different emphasis than there was when I had it, but, still in all, I was sorry for Jack because he's got a terrific responsibility. All of North American automobile design. That split caused a problem in the building, because people were one family. Well, the family is broken up now.

Q It's NAD versus...?

A Design staff, yes. And they each -- the employees are seeing the little perks that staff gets, and they don't get, and there's animosity. It's really too bad. At our end, no problem. Kopka's a wonderful guy. He and Jack -- everybody -- we get along fine -- cooperative and so on, but I see it down in lower ranks, this dissatisfaction. They don't like the split, because these people worked together for years side by side, and now they're [divided].

Q Apparently, it was a compromise at a fairly high level?

A Yes. I never did know the story. I don't know why. If I was doing it, I would go back to one Design Staff.

Q And [with] a director heading the Advanced Studio. So, you're in Small Car and Truck Exterior. This must have been quite a change for you?

A Yes. It went from all the glamour of auto shows and show cars right back into the production end of it again. There I worked on the '81 Escort, the Granada, the Cougar -- '81 period. I was moved around a bit by Gale. I had started out with just small cars, then I had to pick up truck exterior, and I worked on the Ranger pickup, the Bronco II and the Tempo/Topaz. That car line was coming on strong at the time. Now, that's right around 1980. That's when Jack [Telnack] took over, and Gene [Bordinat] retired. Jack came in and looked at what we were doing on the Tempo/Topaz, and he saw a rendering that Fritz Mayhew had done, and he said, "Model that quickly," because we had a [consumer] survey coming up. So, we quickly modeled the car, got it in the survey with the cars that had been under development, and it won. Boom! So that became the Tempo/Topaz.

Q So, that was the extent of [Telnack's] input on the Tempo/Topaz?

A That was just the beginning. Of course, then it was working out the details. It was just a concept that went into the survey.

Q He bought it immediately?

A He bought that design immediately.

Q It was yours and Mayhew's?

A Yes.

Q It's very successful.

A Yes, it sure is.

Q Had the Escort come over from Europe?

A No, the two cars were done separately. They do look somewhat alike.

Q Was that just a coincidence?

A Not completely, because they wanted a true world car. Their car was modeled over here from drawings Europe sent us to compare it to ours. Our car surveyed very well over there, but they found out they couldn't be that common anyway. Different manufacturing techniques. A lot of reasons. So we decided to go our separate ways. There are some commonalities, I think, in the engine and things like that.

Q By surveys, you mean, product surveys?

A Yes, product research. So, then....

Q The survey is considered very important, at this point, in terms of design acceptance. You need the buttressing of future consumer support, and has it worked out that the surveys have been prophetic in a sense that....?

A Well, it depends. If the survey goes our way, then we're happy with it, if it doesn't, we're not.

Q If you get a completely or partially negative survey, what do you do?

A Well, then we have to change. If the numbers are too low, we really have to take a good look at the car.

Q This is really the key to acceptance?

A You bet. If the numbers aren't -- [if] they don't vary that much from the comparison cars that would be in this survey, which would be

today's cars, then we argue. After all, it's a new look. Naturally, the public is not used to it, and they're not going to accept it right away. They have to get used to it. They're used to seeing today's cars, but not something new. Then the surveyors will say, "Not true. Based on our statistics and based on our experience, this isn't going to fly. Those people don't like that front end, or they don't like those taillights." So there's an argument back and forth.

Q You've got the product planners, the survey people, the designers all trying to make some sense out of this matrix. To take you back briefly to the Edsel days when Dave Wallace was doing his famous surveys for the Edsel shapes. They went into a temporary eclipse after that [failed], I think, in terms of whether the company thought that survey research was an absolute science. Obviously, it's not.

A That's true.

Q So, acceptance had to gradually build up again in the 'Sixties and 'Seventies to the point where today it's considered the thing you must do before you finalize the design?

A Very important now, yes.

Q And, on the whole, it's been fairly successful?

A Yes, it has. When we do these surveys, on the last night we will have a question and answer period. We have this fellow, Marty Goldfarb from Toronto, who is our consultant. He runs these surveys for us, and he's very good. [His company is] Marty Goldfarb Associates. He draws people out. He gets questions from them. We'll be sitting in the back row, and they're all sitting around him. He knows all their first names, and he'll say, "Ralph, now why do you say that front end looks

funny?" He just draws them out. We can sit there and listen, or we can ask questions -- only we write them on paper and then pass them to Marty. We don't let them know who we are or don't interfere with the discussion. But, it's very interesting to hear their comments firsthand, because, for instance, we go out to a survey in California, and you think California is really with it. You think of Hollywood, you think of Century Plaza and all that. Some of these people to me look kind of seedy, and yet they're driving Cadillacs and Lincolns, and they don't look like the Hollywood type at all.

Q It's the life style.

A Yes. And then some of the remarks that they make, you can see they're very conservative. These people at least. But, it's an eye opener.

Q It's a helpful tool, obviously.

A It is.

Q You really need this outside input.

A We watch it very closely. It's very, very thorough. It's a big, thick packet of stuff, and the questions that are asked, and the cross references, and, you know -- is it exciting? Is it sporty? Is it new looking? Is it drab? Is it conservative? All these things are asked of them, and you get a pretty good reading from that.

Q Otherwise, you'd be working in a vacuum?

A Well, it would just be our opinion against everybody else's, and management would like to know what does the public think.

Q They need a little more support.

A Yes, right.

Q Even though you're working in truck, which, I understand, is not always the designer's dream [assignment], the Ranger was an exciting concept?

A Yes, you bet.

Q Coming out with something that you hadn't done before?

A The Ranger -- when I was in there, I was able to influence a little more sloping, slanted hood on the vehicle. I thought it was just too straight -- sticking out too much, and I modified the grille. I was able to get involved in some changes before it was frozen.

Q So, at this point, you've been working on the Tempo/Topaz, the Ranger, and the Bronco II and the Escort. This is, obviously, the area to be in in the early 'Eighties. This is going to be the bread and butter area for the next four or five years.

A That's right. I felt real good starting off with the '79 Mustang and these other cars. I felt very good to be part of those programs. And, after that, I became director of luxury and large cars, and I'm into the '84 Mark VII and LSC -- interior and exterior -- '83½ Bird and Cougar, '85 Bird and Cougar, '84 Continental. And, the big thing is this '86 Taurus, the DN5 program. That I feel very good to be part of, and I've been part of that right from the very beginning.

Q To jump from small car and truck to luxury and mid-size, did you find this a bit daunting?

A I always liked the little cars. I didn't think I'd want the luxury cars. And, I suppose, human nature is such that anytime you're moved, although it's not traumatic, it's kind of a nuisance. I'd moved so many times, I was just tired of it. But, this again, was when Jack

[Telnack] took over, and Gene Bordinat retired, and we reorganized. So, he put me in as director of luxury and large car.

Q And DeLaRossa had left?

A He was gone, and Bordinat is gone. It was just a reorganization that occurred, and Jack decided he wanted me in luxury and large car which was good, because the '84 Mark VII was just starting. So, that was an opportunity to get involved in that program.

Q The aero [look], obviously, has been accepted at this point, you're committed to it for the next five years or more, and so the Mark VII is quite a departure from previous Marks?

A You bet.

Q Can you tell us about the decision-making that went on for that? Who was involved?

A Yes. There was, of course, Don Petersen and Phil Caldwell, William Clay Ford -- they're part of the design subcommittee. And Lou Ross. Lou Ross was our boss at that time. He's executive V.P. And, we tried about three different -- I know of three different roof styles on that car. One we did similar to the Eldorado -- very stiff and formal; we did one similar to the '77 Mark -- which was more of an angular/parallel C-pillar; and then we still weren't satisfied, and we were wracking our brains for something different, and one of my guys had done a rendering in the other studio, and it caught my eye, and I thought -- this kind of a concave, sweeping line. It was kind of a luxury line. So, we tried that, and the three models then went on survey and finally to the design subcommittee for approval, and they chose the sweeping line design. But, at that time, the car still had an opera window and a vinyl roof.

Q All remnants of the 'Eighties?

A Yes. All the cues. And, gradually, those cues went away. We decided the car didn't look right with a vinyl roof, it didn't look right with the opera window.

Q What's a cue?

A Cue is a design cue. The cues on that car are the radiator shell, the spare tire hump on the back, the opera window is a cue. It's a cue that says it's a Mark. Then, gradually, we drew into the LSC. We kept hearing we needed a performance car, we need a European road car.

Q What does LSC stand for?

A Luxury Sports Coupe. So, the LSC concept grew, and we decided the car didn't need the bright molding on the body, but something more European, so we came up with a new body side molding for it, unique wheels and tires -- Goodyear Eagle performance tires and some different changes. The interior -- we eliminated the wood grain and replaced it with black brushed material. A lot of things that made it look more European -- more road car like. We wanted to get the California market, which we had lost, and, by gosh, it's working. Californians really like the LSC, but in Dallas they don't. In Dallas, they don't like the Mark. "What did you do to my Mark? You made a small car out of it. I don't have the room any more."

Q Are you planning a four-door?

A No.

Q It's still going to be a coupe?

A The Continental is the four-door. It's the same basic chassis, air suspension, same engine.

Q Why don't you tell these people in Dallas to buy the [Continental]?

A That's too small for them, too, you know. But, you could tell them to buy the Town Car, but somehow they buy Marks. "What did you do to my Mark?"

Q You sold that Mark concept too well.

A Maybe so.

Q The Mark's at the top of the line.

A But I think it's going to grow on the public. Just like the Thunderbird. When the Thunderbird and Cougar came out, everybody went for the Cougar, because that's a familiar shape -- that greenhouse. The Bird was not familiar, but now, a year later, it's growing. It's coming on, and I think the Mark's going to do the same thing.

Q Did you have any input on those two designs?

A On the Bird and Cougar -- yes.

Q Can you tell us about the background of deciding to give the Cougar a different greenhouse, and was that, in any sense, a compromise?

A Oh, no. It was done purposely to give the divisions more differential. See, they were complaining that the cars looked too much alike. The Ford Division and Lincoln-Mercury Division car lines, and they did. They said, "We just need more differential. They're just clones of one another." So, that's why the Cougar roof was adopted.

Q Very striking.

A Yes, I think so.

Q But, you're right. The sleek sport car image of the Thunderbird is becoming more popular.

A Yes, I think so.

Q Are sales holding?

A Yes, quite well. Both cars are doing -- Cougar is still doing very well. The Bird is gaining strength. It's getting stronger.

Q The conservative element buys the Cougar, I suspect?

A Yes. Women like the Cougar. But the Mark, I think, should have come out first.

Q That was unfortunate timing. About a six month differential?

A A year. No, you're right. '83½/'84 -- six months. Because now people are saying, "Well, the Mark looks like a Thunderbird." At least, they could have said, "Gee, that Thunderbird looks like a Mark."

Q What sort of decision-making went into that? Can you recall some of it? Was it all product planning level?

A Well, no. It was probably higher than that. Do you mean, as far as what car should come out first?

Q Yes.

A I think the Bird -- you know, they form the cycle plans that decide what they're going to need, and it's based on competition and how our cars are selling, and, probably, at that time, they needed a Bird and Cougar desperately, and we did. The Mark just had to come along after that. You know, you only have so much money to spend on each program, and they couldn't do it all at once, so the Mark had to come later.

Q It did work to its disadvantage.

A Yes, I think so. It's kind of like the Edsel. You know, if the Edsel had come out first before the '57 Ford and Mercury, then, it would

have been all right. But, no, it came out a year later. Everybody was expecting some fantastic thing, and, really, it was a lot of Ford and Mercury components on that car. It was just a different front end and rear quarter. That's what hurts.

Q You spoke earlier of using an Eldorado as a model. How about the Seville? Did that have any impact on design history at all?

A No. The new Seville?

Q Yes.

A Boy, that's a love/hate car. I mean, most people hate it, I guess.

Q Yet, it has its partisans. Some people love it.

A Yes, I know.

Q What did you think when you saw that? Was that a surprise?

A The first one I saw was at the Frankfurt auto show. It looked strange, because it was in this environment of European functionality and suddenly you see this strange American excessism. It looked strange to me.

Q To move you back to the Versailles, was that an attempt to...?

A It was an attempt to come out with a small luxury car.

Q It was probably a few years ahead of its time. It might well go today. Is it still being made?

A No. Really, that car -- the Versailles -- is pretty much the Continental today. The Continental was going to be called Versailles for awhile. Then they dropped that name, and it became Continental.

Q Obviously, the Mark is the concept that is going to be kept even though you've had some initial disappointment in sales, you've got a concept that you're going with for the next few years?

A Yes. That's it.

Q Five years or so?

A Yes.

Q What's in the future in terms of design decision-making? What decision is now -- what you're telling today will, of course, be heard several years from now, so there's no question of any competitive problems. What are you projecting for the next ten or fifteen years in terms of automotive design?

A Well, I think, we're going to continue to improve on aerodynamics and package efficiency for the passengers and for luggage. Ergonomics, very definitely. We've got to become more conscious of the customer -- his comfort -- his convenience. And, I think, that you'll see some very exciting shapes coming. If you think today's shapes are exciting, I think, you'll see even more exciting shapes. Flush glass, for instance, or more aerodynamic headlights and different shapes of those headlights. Things that we call -- that help as far as the quality of the car. You'll see it on the Taurus. One feature we're utilizing is called "shingling." We have a limousine door that comes up into the roof, but the roof will just have a radius on it, so it's not a line-for-line alignment that gives the production people fits trying to align a door edge to a hard character line. It will just roll under. The same way with the headlights. The headlights will just roll under the hood, so there won't be a line-for-line match. Things like this that we try to think of right from the beginning to help in the building of the car -- the quality of the car.

Q Can you tell us about the Taurus program? What its inception was,

who was involved, and how it's progressed. You're pretty close to completion on that, are you not?

A Oh, yes. It's pretty well wound up from our end of it. We started out, I believe, around 1980 on that program. Yes, April of '81.

Q By this time the Continental and the Mark and the Tempo/Topaz programs were pretty much underway, so you were able to turn to...?

A Which put full steam to this. And, Jack brought Ray Everts back from Europe. He was director of design in Ford of Germany to work on the program under me, and we just got rolling. Fritz Mayhew was in the department under myself and Ray Everts -- also Dave Turner. And, at that time, I had both the interior and exterior, so we had a group working on the interior as well as upstairs on the exterior. We just started in, and the first few attempts were pretty bad, I thought. God, they were awful, and then we ran a couple of preliminary surveys, and they weren't too good, either.

Q At this point you've moved along the aero route, and yet you're looking for something quite different. And, so, what are your influences at this point?

A Well, the influences were aero all right but also a more organic look. But, unfortunately, the organic look turned into a very fat look, and whispers were going around the building, "Look at the fat cars they're doing in the Taurus studio." The first clay we put out in the courtyard, I was so embarrassed it was terrible. So, I said, "Ray, you know, we've just got to get off this."

Q What had happened?

A Well, because of the soft, organic shapes, he was trying to make three-dimensional shapes that are very complicated. Not just a basic

car with a straight bumper and a straight side molding, this was a whole-new way of thinking of trying to get the car more three-dimensional in its appearance.

Q Why organic?

A Because organic is kind of -- leads into aero. You know, soft, round shapes help aero. They don't have to be soft and round. We found that out, but this was Ray's conception. So, anyway, we finally....

Q So, it was back to the drawing board?

A Oh, yes, for quite awhile. But we finally began to shape up and get into something we liked, and the Mercury model, I think, is very exciting. The whole glass just wraps around the car -- the back end. And it's got quite a wedge shape. It'll have what we call a laser grille. The grille is not a grille at all, it's just a lamp assembly that fits in between the headlamps and the parking lamps which will light up at night, and then we have a painted laser pattern that goes out from the center so that you get a vignette effect of light at night. You'll know a Sable when you see it on the road. It's lit up.

Q This is the Mercury Sable?

A The Mercury grille. And, the taillights pick up the same laser pattern -- the same theme. It's very effective.

Q Whose idea was this?

A The designers. I can't remember who -- the whole matrix. As a team, you know. I hate to say this was this one's idea and that one's idea, it just develops.

Q But you had to [give] the final approval?

A Right. The Taurus was more difficult. That has a little -- the wheelbase of both cars were the same, but the Ford has a two inch

shorter rear overhang, and [with] the crummy two inches, we just couldn't get a greenhouse to look right on that car. We had an awful time giving it the right silhouette, and we finally did hit on what I think is a good solution.

Q So those two designs, I mean the Sable and Taurus, are pretty much close to completion?

A Oh, yes. These cars will have flush glass, aerodynamic headlamps, they'll have polycarbonate bumpers -- which is new for Ford.

Q Is that a new kind of metal?

A No, it's a plastic material. It's on the European Ford Sierra, and its polycarbonate.

Q Who's doing that for you?

A I think it is a G.E. material.

Q G.E. is coming up very strong in the automotive plastics business?

A Yes. So, it was very unusual. The whole car is unusual.

Q How about the interior? Did you come up with any new wrinkles?

A Yes. The interior is quite different. It's very European. You know, it doesn't have all the wood, and the chrome, and all the pizazz, and the fuzzy fabric that you're used to on American cars. Now, we're getting worried about that, and they're doing some minor adjustments. They're going out on survey in another few weeks to see if this will be all right.

Q If it isn't too big of a jump?

A Yes. We might have gone too far. So pull 'em back just a little bit, but not that much. But, it's a very, very European-oriented car.

Q It's very exciting. I've seen some of Ford's show cars over here

the other night for the Grand Prix. I was very impressed with the original Ghia van model.

A Yes, that's neat, that's super.

Q Too bad you couldn't come out with that.

A You mean the Aerostar?

Q Yes, the Aerostar. And the experimental Mustang is marvelous.

A I think Ghia just built that.

Q And there were two or three others that I thought were really smashing. The Sierra, in spite of its poor reception in Europe, I hope that the division will push it.

A Oh, I think it will do well here. I think the main problem is not Europe, it's England. The English are very conservative. "What did you do with my Cortina?" You know, why....

Q Fleet buyers, I guess, they are a problem?

A That's the big problem there, yes.

Q They want something that's been going well for them for a decade, and they don't want to change.

A But, on the Continent, the car is doing all right. And, in the meantime, G.M.'s come on strong with a good product over there. They said three or four years ago they were going to do it, and they're doing it. They've taken over that market.

Q I hope you can hold them off, because the Sierra is exciting.

A I think it'll be all right.

Q How is it doing in Germany?

A Quite well from what I hear. No problem there.

Q Beyond the Taurus program, what do you see in the next -- until the end of the century?

A An exciting new Thunderbird and Cougar and exciting new Mark.
Really different shapes.

Q How about power plant development? Are you going into anything special there?

A Yes. There are some new ones coming along. I'm not that familiar with the power plants, but I know they've got something in the offing.
[New] transmissions.

Q On the whole, it looks like it will be an exciting ten or fifteen years.

A Oh, yes. I don't think it's going to slow up. No, I think we're still on the move. As long as the economy stays strong and people keep buying cars, we'll be all right. And General Motors is going ahead so rapidly and expanding that we've got to be competitive, too. We'll have to keep up.

Q Although General Motors has not been into aero, I think by making the direct decision on this, but they're rapidly catching up?

A Yes.

Q In terms of the new advanced vehicles they're coming out with?

A Yes. They say that they're into aero, but their current cars really aren't that good, and they weren't committed as soon and as seriously as we were to aero. They probably didn't even feel they had to. We just chose it as a good way to go. It's been something we put into our cars because it made 'em look different, and it also gave a functional reason for doing it.

Q Will the Taurus eventually replace the Tempo/Topaz?

A No, that would replace the LTD/Marquis.

Q These are bread and butter items at the moment.

A Yes, you bet they are. That's it. That's why we're a little worried about....

Q So, you could hold it up for a year or two if necessary -- the Taurus program?

A No, no. That's go. If we did anything, we might keep the LTD/Marquis for six months or a year. But now we're just kind of worried are we stepping too far away from the LTD/Marquis look. And, we certainly are. Nothing like those two cars.

Q Ford has had a fascinating design history, much different from the other companies in terms of the fact that you've had a family involved. What's been your perception of -- looking back on Ford design history as you've experienced it?

A I've enjoyed it. I have a positive attitude towards it. But, it's been good to me. I would have been happy to sit at a drawing board all my life and just draw cars, but every now and then, why, somebody would come and say, "Well, you're promoted. You're going to be this, you're going to be that," and I couldn't -- at the time, I couldn't believe it. I said, "Well, gee, so and so is better than I am at that," and I was just very pleased and flattered that I got to where I am. And, as I say, I just love cars, I love the business, I love being around the clay models and the modelers and the designers. And, even after all these years, I wake up in the morning and I'm anxious to go to work.

Q Several of your colleagues have expressed the same enthusiasm. It must be that working for Ford was a unique design experience. A couple

of people I've talked to have said that General Motors is not that way. It's more regimented.

A It could be, Dave. I don't know. I'm not that familiar with G.M.

Q And that one of our interviewees said that he had spent a couple of years at G.M., and he was so glad to escape, because at the Tech Center you're sitting out there with thousands of other drawing boards, and it just wasn't the same. You're one little cog, and your achievements are [almost] never recognized. But, at Ford it seems just the opposite. You had a marvelous atmosphere under Bordinat.

A Yup.

Q A guy who respected and liked the people he was working for and advanced them.

A He sure did, yes.

Q And, it seems to me that's a unique situation.

A Yes, it really was a family -- is a family. It really is, because those three years I was gone in corporate identity, I remember the first day coming back, walking down the hall, and people coming up to me and saying, "Hey, Bob, good to see you again. Glad you're back." After three years I recognized the face, but I didn't recognize the name, and I felt so embarrassed because they knew who I was, and they were happy I was back. It really hit me then that it really is a family. World Headquarters was strange to me. That whole operation was strange. That was more like what they've talked about at the Tech Center, it's more structured, it's more regimented. If you didn't have a black suit and a white shirt and a black tie and wing-tipped shoes, why.... I used to

come into work with a -- they call this a colored shirt. "Well, look at him. Look what he's got on." It was really a riot.

And no one would communicate. They'd write letters. All the memos implicating you on something. You'd look at this "hot potato," and you knew you had to do something with it now! So you'd have to write another memo. The guy would be just down the hall. "Why didn't you come down and talk to me about this?" "Oh, no. I've got to write you a memo with a copy to the boss." So, it was -- I didn't care for that. Design Center is a relaxed, friendly, family atmosphere.

Q Did you keep in contact with Paul Burns?

A I went to his retirement party, but I haven't seen him since. Just a wonderful, wonderful person.

Q Easy to work with, and he had a very smooth approach. I mean, he would smooth ruffled feathers.

A Oh, just beautifully. Unfortunately, about half way through the program, he was moved, and John Bowers came in from marketing. He became the director. I was sorry to lose Paul. So, that's about it, Dave. I don't know what else to....

Q Would you have chosen any other career do you think?

A Nope. No way.

Q This is really what you wanted to do.

A Sure is.

Q And you're really at the start of exciting new programs.

A Yes. There are a lot of new ones starting out.

Q Are you currently director of Luxury and Large Cars?

A Yes.

Q And, you're going to stay with that for the moment?

A For the moment, unless Jack has other plans. You never know.

Q Well, thank you, Mr. Zokas, very much for coming out. It's been delightful. I'm sure that future students of design will profit from your experiences.

A I hope so. I hope I can be of some help.

#

AUTOMOTIVE DESIGN HISTORY PROJECT - continued
MID 1984 TO MID 1987 RETIREMENT
ROBERT F. ZOKAS

In June of 1985 I assumed responsibility as Director of Interiors which included the interior studios, trim and color, and the trim shop.

Two immediate problems facing me were major revisions requested in the 1988 Continental instrument panel and interior trim. The second major concern was the 1989 Thunderbird/Cougar instrument panels. The previous designs had just been through a disastrous survey, and I was faced with a complete redesign which we completed in less than three months with successful research and management's endorsement.

Within that same period I directed the initial design to approval of two instrument panels for the 1991 Escort and Laser. That program was code named CT-20, and it was a cooperative effort with Mazda in Japan. We designed the interiors, and Mazda did the engineering. We sent about twenty people to Japan to work with the Mazda people in the feasibility development of our designs. These people included designers, clay modelers and studio layout personnel.

Another program handled similarly was the 1990 Town Car. We designed the instrument panel and interior, and an English firm called International Automotive Design (I.A.D.) engineered the components for us. We also sent a small crew to England to monitor the engineering development as we did with Mazda.

The reason for doing this was cost and manpower. We just didn't have the resources to do all these programs ourselves, and in many respects it was less costly to have them done outside.

During the three years I spent in interiors, I completed eleven all new instrument panel programs which were needed by 1990 due to the

federal government requirement for passive restraints. This required an air bag or some type of passive belts, and with either system a configuration in the instrument panel was required to prevent a person from somersaulting in the event of a collision. This configuration was called a "knee bolster."

Trim and Color involved yearly exterior color shows in Palm Springs (somebody had to do it!). These reviews included many of the top executives in the company, including Mr. Petersen, who was very interested and knowledgeable about color. He had a condominium near Palm Springs, and he would bring his wife, Jodie, to the shows for her viewpoint as well.

One event stands foremost in my mind as a major one during my days as Director of Interiors and that was an interior and trim and color review for Mr. Henry Ford II. He just felt out of touch and wanted to see what we were doing in the areas of the interior and color. He couldn't have been more interested and gracious.

During those last three years of my career, the company became very involved with "participative management," "employee involvement," "concept to customer," "team concept," etc. While all this was well and good, we were all so involved in meetings related to these topics that it was difficult to get any designing done, especially with a steady yearly reduction in personnel.

So when Don Kopka announced his retirement and Jack Telnack became Vice-President of Design Staff, I decided to retire myself. In thirty-two years I had marched to too many drummers and just decided I didn't want to march any more.

This, along with yearly reductions in personnel and steadily increasing workload plus all the time spent on "team concept," "CTC", etc., I decided it wasn't as much fun as it used to be.

To this day I have not regretted retiring. I loved automotive design and all the people in it -- still do -- but there comes a time to step aside and let a young starry-eyed kid (like I was) take over. I have no regrets and plenty of great memories.

Bob Zokas

AUTOMOTIVE DESIGN TRENDS FOR THE 1990's

Dave, you asked in your letter for an educated guess as to the problems and promises of automotive design trends for the '90's, so here goes:

Since I retired, I look at automotive design with a completely different perspective because I am no longer influenced daily by my former work environment which, at times, could make you somewhat biased.

The problems I see are that we no longer have the upper hand in design. For years the Japanese concentrated on reliable, high-quality, reasonable transportation but were very timid -- almost backward -- in design. In the last several years they have sent their designers to American design schools, hired American designers, built design studios on the West Coast, and now it's paying off for them.

When Ford pioneered the aero look with the Taurus, it caught all manufacturers with their pants down -- especially the Japanese. They had no choice but to follow Ford's lead. What else do you do if you're not going to design another angular, boxy car?

Now look at some of the more recent cars from Mitsubishi, Toyota (MR-2), Mazda (Miata) or the Geo for Chevrolet -- pretty exciting stuff! Even the Infiniti is a softer, more aerodynamic shape.

Incidentally, to prove my point, the Mazda Miata was designed by Chuck Jordan's son, who is an extremely talented American designer working for Mazda.

My point regarding the Japanese is this: Before they had everything but design -- now they have everything:

OBSERVATIONS RE: "THE BIG THREE"

Chrysler

The domestic Chrysler cars are still stodgy, old-fashioned Iacocca/Bordinat designs of the '70's, loaded with glitzy chrome and padded vinyl roofs with interiors fit for a casket. Their sportier cars are much better with the best designs on the Mitsubishi imports.

General Motors

Noticeable change in G.M. styling since Chuck Jordan took over. Much more aerodynamic shapes with crisp lines to complement the soft shapes. Still a little too much glitz on their luxury cars, as on Cadillacs, Sevilles, Eldorados and some Buicks.

The 1991 Chevrolet Caprice Classic looks slippery from a side view, but from the front or rear, the car looks too fat with undersized wheels and tires. The proportions are wrong.

Ford

Ford is still on the aero kick, which is fine, but an observation of my own "alma mater" (Ford) is that our cars never quite look complete as to detailing of moldings, grilles, taillights, etc. In spite of my criticism of Chrysler cars, I must admit they have a certain "sparkle" that catches your eye as they go by. I'm not suggesting Ford should clutter their cars up like Chrysler, but more attention to detail and refinement are needed.

The Continental was purposely designed with European influence, therefore, it does not have the same "Sparkle" a Cadillac or Imperial have. Is this good or bad? If I'm an American buyer, it's bad. If I'm a BMW or Mercedes buyer, I still won't buy a "European-looking" Continental.

Summary

I believe the aero look will wear off in the next five or seven years, and a new look will be required by then. The designers should be searching for that look now.

I believe the cars of today are so soft and slippery they lack the personality found in the cars of the 1940's, 1950's and '60's.

And as a final note, I just want to say how much I curse hidden wipers every time I try to clean snow or ice out of the slot. I was very much part of this design feature, so I have to curse myself as well as my colleagues. Here's a case of being too close to something, and then you retire -- look at things very differently -- and you can see why the public doesn't always agree with your design concepts. Oh well, "onward and upward" as Jim Fitzgerald would say.

Bob Zokas

COPYRIGHT NOTICE

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be used for any purpose other than private study, scholarship, or research. If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of fair use, that user may be liable for copyright infringement.

The Henry Ford reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of Copyright Law.

Benson Ford Research Center
The Henry Ford
20900 Oakwood Boulevard · Dearborn, MI 48124-5029 USA
research.center@thehenryford.org · www.thehenryford.org