Herrick Iron Works Oral History Series

Harold W. Dornsife

STEEL CONSTRUCTION IN THE WEST

With Introductions by
George H. "Chuck" De Kay
and
James S. Little

Interviews Conducted by
Lisa Jacobson
in 1988 and 1989

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**************************

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Indiana background, values; basketball scholarship to University of Southern California, 1934; Standard Oil Co. of California, 1939-1946; Industrial Relations Section, Cal Tech, 1941; C.F. Braun & Co., refinery operations, 1946-1954; buying and building up Herrick Iron Works, 1956-1965; Herrick Pacific Corp., 1965-1989: British and Japanese steelmakers, competition strategies and shop methods, earthquake-proof high-rise construction in and out of California; structural steel industry in the West: strategies, imports and tariffs, labor relations, no-growth movement, trade associations; Gillig Corp. and other subsidiaries of Herrick Pacific Corp. Appended list of representative projects.

Introductions by George H. De Kay, retired vice president, Herrick Corp.; and James S. Little, retired pastor, Lafayette-Orinda United Presbyterian Church.

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INTRODUCTION -- Harold W. Dornsife

The first time I saw Hal Dornsife he was running around in short pants and bouncing a large ball. This, in itself, is not very unusual, except he was probably twenty-one years of age. Lest you get the wrong impression of this guy, let me explain. The setting was Harmon Gym, and he was a member of the USC basketball team playing against Cal.

I had no way of knowing that night that in about fifteen years our lives would become very much interlocked, and that we would work together for almost thirty years. During this time he gave many people, including me, an opportunity to grow and succeed along with him as The Herrick Iron Works (later to acquire the more dignified name, "The Herrick Corporation") progressed. Many owe him a debt of gratitude that will be difficult to repay. I am one of those.

The early days with Hal are the most memorable to me. When he first became my boss, he had just been made general manager of a small steel fabricating company (not Herrick). He came in with two and a half strikes against himself. He was the new kid on the block, and he didn't really know much about the steel fabricating business. The company was in very poor shape. Our backlog was non-existent, and we were losing money. For the next six months Hal worked our tails off. Then one Friday night after work, he raided the petty cash drawer and took four of us out to dinner and for a night on the town in San Francisco. That's when Hal became of age with his crew, as we found he cared for us as individuals.

Another six months of very hard work and we began to pull out of it. During this period we started seeing some unusual qualities in this man. Through his initiative, and background in the petro-chemical industry, he convinced us we could produce an engineered product heretofore unheard of in our little company. There always was plenty of work to do, but often in the evening Hal and I would go to a local high school for a pickup game of basketball. This was our way of getting rid of tensions and aggressions.

At this time I saw another side of Hal's character. He had a disagreement with his boss over a matter of principle. Rather than compromise his principle he accepted the alternative, which was to be fired. And that's when his involvement with Herrick really started, for his desire to be an entrepreneur was already apparent. For a couple of years we were not working together. Upon his acquiring The Herrick Iron Works we were reunited and worked together until my retirement.
In those days his management style could be summed up as, "Manage by Objectives, Evaluate by Results." It is obvious that this trait, along with his hiring competent people, was among the keys to The Herrick Corporation's success. In the relatively short period of twenty years it grew from just another small Bay Area shop into the dominant steel fabricator west of Chicago.

I remember one time a director of Herrick asked me what was the key to the company's success. After mulling this over for a while, and searching for some profound observations on management styles and techniques, I realized the real reason. I replied, "To succeed you have to be just a little better, just a little smarter, and work just a little harder than your competitors, AND you must have OPPORTUNITY!" All of those factors came together at Herrick starting in the '70s. We had an unusual bunch of mavericks who made it happen.

Hal Dornsife, in common with many chief executives, is a very complex person. He has many good, loyal friends in business, but, similar to many of his peers, he is not liked by everyone. He is respected by most. He has created a company that has afforded a fine standard of living to hundreds of people. He has seen his own son grow in capabilities within the organization to the point where he now manages several of Herrick's companies. He was able to attract capable, talented people, many of whom were most productive when somewhat remote from "corporate headquarters." Some of his "graduates" have gone on to become owners of their own companies, or chief executives of very large firms. This must be a great source of satisfaction to any successful entrepreneur. By any objective evaluation The Herrick Corporation is an outstanding company. What Hal Dornsife has accomplished in thirty-five years will be his monument to the structural steel industry.

George H. "Chuck" De Kay, 
retired vice president, 
The Herrick Corporation

July 18, 1990
Lafayette, California
INTRODUCTION -- Harold W. Dornsife

My first impression of Hal Dornsife was the size of his huge right hand that reached out to shake mine, and with the same motion the feel of his left hand wrapping around both our hands to seal the greeting. Only later did I discover that those same gifted hands helped a poor boy from a very small farm in Indiana receive a full basketball scholarship to the University of Southern California, where he achieved an excellent education in the field of chemical engineering. This tall, wide-bodied man with the large hands and big heart also fulfilled the basketball scholarship goals with his leadership and play on the court. Adversity hit when his right arm was broken. But Hal became proficient at scoring with his left hand as well as the right. That is typical of the way he handles the hard places.

Much of the character of this man shines through on the basketball court. He possesses a special kind of intensity and a total commitment to winning by playing clean and hard, going all out, all the time, all the way. His play helped pull off one of the great upsets in Pac 10 basketball history: Stanford University was national champion largely because of their high scoring All American, Hank Luisetti. It shocked the basketball world when the University of Southern California stopped Stanford's win streak. The star of that game was Hal Dornsife, whose large hands and all-out swarming defense shut down Hank Luisetti. Not only did the newspapers give Dornsife the credit for the win, but so did Hank Luisetti. That night a friendship was begun between Hal and Hank that continued through the years. The same qualities that helped Hal be a winner that night have continued to help him achieve success in his professional and personal pursuits.

I have known Hal Dornsife and his family for more than twenty-five years. Hal and his wife, Ester, their son David and their daughter Dody, were active members of the Lafayette-Orinda Presbyterian Church when I came to be their new senior pastor in the fall of 1964. Both Hal and Ester are ruling elders in the Presbyterian Church, and over the years have served on several strategic committees that helped shape the style and direction of the mission of our Church.

Since this is a story about Hal, I would like to share a few of the insights about him that I have gained over the years by having the privilege of not only being his pastor but also being a close friend.
We have shared much of what there is to share in life about professional and personal matters. We have enjoyed our open, candid, and supportive relationship. In his roles as Clerk of the Session, President of the Board of Trustees, and Chairperson of the Personnel Committee, he became my tutor and mentor in showing me an administrative style that was relationally sound and effective. Here, then, are a few of the things I know about Hal.

Hal has always had a structured sense of purpose and direction for his life, and a relentless commitment to the achievement of reasonable, measurable, and attainable goals within a given time frame. His administrative style enables all who are involved in a project to understand the specific criteria that will be used to evaluate the progress being made. In the midst of increasing ambiguity, paradox and complexity, especially in times of adversity, he is an expert at being contextual and situational. He accepts the world where it is and refuses to start with solutions before defining the problems. He is willing to adjust to meet a changing situation. He is flexible and innovative, but always remains faithful to the bottom line value of integrity and competence. With the same intensity he showed on the basketball court, he agonizes over the tough, not always popular decisions he has to make in order to do the right thing for the right reason. Above all, he is most concerned with what happens to people in the process. He constantly is asking the question, "What is the just and loving thing to do for all concerned?"

Truth seeking and truth telling are not always an easy path to follow, especially when the news is not good. Hal is a very able and strong leader, but also a compassionate one. In low-profile, quiet ways I have watched him open the door for his people to get the best in medical care, to find new jobs, and to counsel them in numerous ways to have a better future. I have heard him pray for guidance and wisdom as he sought to make the right decisions. In his negotiations with the labor unions, he remained committed to a win-win contract where both sides could have specific benefits. He refused to have one side win at the expense of the other.

Before you get to know Hal well he can on occasion be intimidating. His keen mind and analytical ability often enable him to see more quickly in clearer focus than most of us, but if you stay with him and trust him, you will find that there is nothing to fear, because above all he is a people person. He wants us all to win, so he gets to the bottom of things. He affirms that only the truth will set us free to create a helpful future. He wants to win.
Along with all this intensity and commitment to excellence, Hal is also a man who enjoys life to the full. He has a zest for all of it. He thrills at risking his neck riding off-road bikes on their ranch in the Gold Country. He is an avid sports enthusiast. He likes to analyze coaching strategy and the timing of player deployment during the games. He keeps in shape by playing tennis and jogging.

Hal has a wonderful sense of humor. He is at times a compulsive punster. Here is a sample:

The definition of debate: That's what lures de fish.
The definition of rebate: It's when you put another worm on the hook.

Where is baseball referred to in the Bible? In the section which says, "In the Big Inning."

Hal Dornsife's big hands and big heart continue to reach out for family and work, for friends and many philanthropic needs, including a special interest in neuroscience. I wish each one of you could experience the impact of his big hands wrapping around yours in the mutual commitment to be a winner in a big cause.

Dr. James S. Little, retired senior pastor
Lafayette-Orinda United Presbyterian Church

October 1990
Orinda, California
INTERVIEW HISTORY--Harold W. Dornsife

Harold Dornsife was interviewed to document his business career and observations on the changing dynamics of structural steel fabrication and erection in the West. Head of The Herrick Corporation since 1965, Mr. Dornsife presided over the company's development from a small independent into one of the principal players in contract bids against the major steel mills operating in the West. Critical to this success was a well-crafted strategy that recognized structural steel as vital to high-rise construction in earthquake country. Mr. Dornsife explains this strategy, providing details about the company's relationship with foreign steelmakers and personal maneuverings to overcome competitive obstacles. Garnering contracts in San Francisco, Los Angeles, Portland, Seattle, Denver, and Phoenix, The Herrick Corporation has contributed significantly to the ever-changing city skylines of the West.

Mr. Dornsife was interviewed at his office in four sessions scattered over a six-month period in 1988-1989. Owing in part to pressing business demands, Mr. Dornsife postponed the retirement he had earlier anticipated and made time for interviews as his hectic schedule permitted. All were conducted his desk over a lunch ordered from a favorite local restaurant.

Mr. Dornsife carefully reviewed his manuscript for accuracy, making refinements and additions to sections on his early years in Mishawaka, Indiana. He would have liked to formalize the interview by revising it, but agreed to let stand the informal, spontaneous form typical of oral histories. Since he preferred to have it treated as a manuscript source, only two copies have been deposited in research libraries.

It is to be hoped that at his leisure he will write a full autobiography, elaborating upon the activities of the subsidiary companies that now comprise The Herrick Pacific Corporation, and adding personal recollections of the events in his extremely busy and productive life.

Special thanks are due Mr. Dornsife's administrative assistant, Mary Goriup, who was an invaluable help coordinating the scheduling of interviews, assisting with the selection of photographs, and making company documents available.

For an account of the earlier years of the Herrick firm, and of some of the matters which Mr. Dornsife discusses, see Stephen Gale Herrick's oral history From Structural Steel to the Arts. Together, the two
volumes trace the growth of a small iron works into a major structural steel fabrication company whose products form the framework of many of the buildings of the West. We wish to acknowledge with gratitude Herrick Pacific Corporation's support which made this oral history project possible.

The Regional Oral History Office was established to tape record autobiographical interviews with persons who have contributed significantly to recent California history. The office is headed by Willa K. Baum and is under the administrative supervision of The Bancroft Library.

Lisa Jacobson
Interviewer/Editor

October 1990
Regional Oral History Office
University of California, Berkeley
BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name: **Dornsife, Harold W. (known as "Hal")**

Date of birth: 11-12-15  Birthplace: Mishawaka, Indiana

Father's full name: **David D. Dornsife**

Occupation: Deceased  Birthplace: Williamsport, Penna.

Mother's full name: **Jennie Lynn Gay Dornsife**

Occupation: Homemaker  Birthplace: Knox, Indiana

Your spouse: **Ester Maria Peterson Dornsife**

Your children: **David Harold Dornsife**

**Dorothy Helen Jernstedt**

Where did you grow up: Mishawaka, Indiana

Present community: **Orinda, CA**

Education: **Masters in Chemical Engineering at Univ. of So. Cal.**

Occupation(s): **C.E.O. and Chairman of Herrick Pacific Corp.**

Areas of expertise: **Business Management in Structural Steel, Fab. & Erection, Heavy Vehicle Mfg., Engineering, Construction and Operation of Refinery and Petrochemical Plants.**

Other interests or activities: **Church Administration, Healthcare, Fund Raising, Motorcycling, Body Surfing and Sports.**

Organizations in which you are active: **Lafayette Pres. Church Bay Area Council**
I MISHAWAKA, INDIANA: EARLY YEARS, WORK, AND EDUCATION, 1915-1934

Family Background

[Interview 1: 9 September 1988]##1

Jacobson: Hopefully your memories will be fresh, having returned from your fifty-fifth high school reunion in Indiana. Let's start with when and where you were born.

Dornsife: I was born in Mishawaka, Indiana, in November 1915. Mishawaka was a small factory town in northern Indiana with a population of around 20,000. I lived there until I was eighteen, at which time I went to California, and have not returned to live in Indiana since.

Jacobson: What did your parents do?

Dornsife: My parents had a ten-acre farm, and we all worked on that farm; but my father was a bootmaker at a local rubber boot manufacturing plant called The Ball Band Rubber Company. He was a bootmaker throughout my life there.

Jacobson: Did you grow up working on the farm?

Dornsife: Yes. I worked long hours on the farm. This was during the depths of the Depression, and the farm work allowed us to survive, even though many of the factories in town were closed during this period. We were always able to eat well because of

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1This symbol (##) indicates that a tape has begun or ended. For a guide to the tapes, see page 115.
the farm, but there were no luxuries, such as vacations and the like, during this period.

When I started high school in 1929, our world was in reasonable financial balance. With the market crash in 1929, conditions worsened, and many people were hungry. However, I benefitted from the close friendships in high school, because the only thing we had was each other. I graduated in 1933, with a degree in our machine shop trade course. I then returned for a fifth year to get my college prerequisite courses.

Jacobson: How many brothers and sisters did you have?
Dornsife: I had two brothers--one two years older, and one eleven years younger.

Jacobson: Were you all working together on the farm?
Dornsife: Yes. The farm work involved a great deal of strenuous handwork. We had a horse, and I learned to harness it and to plow and cultivate the land. We grew fruit, vegetables, and a number of other foods on our farm. We harvested the fruit and vegetables, and I hauled these down to the residential areas and sold them door to door. Our farm was located a mile away from the city boundary.

Selling food door to door turned out to be one of the most important of my educational experiences. I started this when I was ten years old, and continued it for several years.

When I was eleven years old, I was fortunate in getting a job delivering newspapers. This turned out to be a wonderfully challenging experience. From the farm work and newspapers, I learned how to work hard at an early age and not feel sorry for myself. This marvelous heritage has remained with me.

Selling Produce Door to Door

Jacobson: Tell me more about selling fruit and vegetables door to door.
Dornsife: I sold berries, cherries--just innumerable fruits and vegetables door to door. This was a difficult experience initially, because I was going to many of the homes of my school friends. They felt that we must be beggars to be doing
this kind of thing. Many of them asked questions: "You're not going hungry, are you? You do have enough money to keep going?" Because most of them didn't need to work like that.

Jacobson: You started selling long before the Depression started?

Dornsife: I started selling farm products about three years before the beginning of the Depression. These early experiences in selling to the public were invaluable. When I visit my home town now, some of my good friends still kid me about my work during these early years.

Jacobson: What were some of the important first selling lessons that you learned going door to door?

Dornsife: The first lessons I learned were those having to do with people and how people viewed you. I learned that it was awfully important to make it easy for them to have a conversation with you, and I learned as I approached people to say, "How are you today?" That broke the ice, and then it was easy to talk to them about, "Would you care to buy some of my fruit or produce?" Initially I started out with "I've got some berries; you want to buy some?" That was a great learning experience--self-taught but so very valuable.

Selling Newspaper Subscriptions

Dornsife: Another thing that these early selling experiences allowed me to do was to go out and sell new subscriptions for newspapers. Had I not had that prior experience selling fruit and produce, I wouldn't have had the great and good fortune to win three trip contests associated with getting the most new subscriptions during a contest period of two to three months. Those trips took me to Washington, D.C., on one trip, to Mammoth Cave, Kentucky, on another trip, and to Soldiers' Field in Chicago for a great football game--Notre Dame vs. Army. These were marvelous learning experiences, and I remained with my newspaper route through my freshman year in high school, after which I discontinued it because of other obligations.

Jacobson: Were you selling newspapers to the same people you had sold fruit and vegetables to? Were these the people you developed relationships with?
Dornsife: Some of the families I delivered newspapers to were the same people who purchased fruit and vegetables from me. In selling produce, there were no restrictions on the places in town where I could sell. However, a newspaper route covers a very specific area, and you are not allowed to deliver papers in other areas of the community. As a consequence, very few of the people who purchased my fruit and vegetables were on one of the four different newspaper routes that I had. However, there were no restraints on the territories you could cover when seeking new subscriptions for the papers when a contest for new subscriptions was going on. As a result, some of my produce customers became new subscribers to the newspaper, and I was able to benefit from my early experiences in selling produce.

Jacobson: You must have just spent hours doing this. It was a big time commitment.

Dornsife: Yes, it took many hours of intense effort to get new subscribers for the paper. However, it was an exciting challenge, because once each week during the contest you had an opportunity to turn in all of your new subscriptions. I soon learned that this was a poor way to win the new subscription contests, because your competitors knew exactly where you stood each week. It took an extra effort, but I found it was best to ask the new subscribers if they would be agreeable to my not turning their names in for another three to four weeks. About half of them were agreeable to my holding their names. Then I would come in at the end of the contest with fifteen to twenty new subscriptions as a surprise—and was successful in winning three major contests this way. Once again, this was a wonderful learning experience.

Jacobson: Very clever.

Dornsife: I saw one of my competitors, another newspaper boy, at my fifty-fifth high school graduating class reunion last week—the boy I had defeated for the trip to Washington, D.C. In that contest I came in the last day with around twenty new subscriptions. He thought he had a fifteen subscription lead, and everyone knew he was going to get it. But I was able to talk to him at the reunion and found that he no longer had any hard feelings about it.
Trips Taken as Subscription Sales Contest Winner

Jacobson: Were you able to take time out to go on these fabulous trips?

Dornsife: Yes. Most of the trips were during the summer months, except for the Soldiers' Field trip, which was on a weekend. I got a substitute to carry my newspapers while I was away on these trips.

Jacobson: Did the contests include just Mishawaka, or did they cover other areas?

Dornsife: The new subscription contests covered all of Mishawaka and all of South Bend, Indiana. The contests were set up by newspaper carrier zones within these two communities. It was necessary for you to win your zone to qualify for a trip.

Jacobson: Did you travel by yourself to these places?

Dornsife: There were a number of other newsboys on each trip. On the trip to Washington, D.C., there were about twelve of us.

Jacobson: The travels must have been very eye-opening experiences for you.

Dornsife: They were. I usually bought a few mementos on a trip. When I last visited my mother (who is still living at age ninety-seven), I found that she still had the little Capitol building miniature from my Washington, D.C., trip. She has it among her treasures at her home in Nashville.

Jacobson: Did any of these trips spark interests that later on were developed professionally?

Dornsife: Actually, no. They were a great challenge and they were an exciting adventure, but they were not an integral part of my going on to college. They didn't inspire me along that line. They did inspire me to excel in whatever I did and to be creative, but the inspiration for my going to college came from an entirely different source.

Jacobson: Just so that I get it down for the record, what was the name of the newspaper that you were selling newspapers for?

Dornsife: South Bend Tribune.
Jacobson: Was it a good paper?

Dornsife: It was and it still is a good newspaper. I saw it again when I was back for my fifth-fifth anniversary last week.

**Interest in Athletics**

Jacobson: What other interests did you have as a young boy and in your early teens?

Dornsife: Prior to starting high school, my time was consumed mostly by work, but I also liked athletics. I tried to get involved in every way I could with baseball, softball, basketball, and the like, but I did it on a very low-key basis. I was never involved in any team sports until I went out for basketball my sophomore year in high school, and that's a completely separate story.¹

I played softball on a church team--I was the catcher on that--and played baseball with a group of young boys out in our general neighborhood. I also played sandlot football, and that developed as a disaster. It was my first love as a sport, but when I was age twelve I unfortunately got a knee in the middle of my back and crushed a lumbar disk. I had some real trouble living with that, because I was forbidden by my parents to play football. As my parents saw it, "Harold, you just can't be wasting your time chasing a little old ball. We have too much work to do around here." I needed to hide this injury from my parents, and so my ball playing was usually at least a half mile to two miles away from where my home was.

**Religion and Values**

Jacobson: How would you characterize your parents in terms of being strict or demanding?

Dornsife: They were strict and demanding from a work-ethic standpoint. They were also strong in their religious beliefs, and committed

¹See pages 8-9.
to basic integrity and to many other fundamentals in building our character. I have benefited greatly from having had a mother and a father who so consistently helped me to value honesty and the other basic principles in life. The foundation it gave me was fantastic. During my youth, those were probably the greatest values that I gained at home. They never had any qualifications; it was an absolute: "Thou shalt be honest."

Jacobson: Were you active in church groups? Was it a big part of family life?

Dornsife: Yes. From my earliest memories, we always attended church and Sunday school. I can recall the early days at the Free Methodist Church--that was about a half mile from our home, and I went there until I was about eleven. Then we went to the English Lutheran Church, which was about three miles away. I went through catechism there when I was thirteen, and became confirmed. Then, in my last couple of years at home, I decided that I wanted to look at what else was available there, and went to a Baptist church with some of my friends. I found that to be the most enjoyable church experience--to get a new vision of what a church really had to offer.

Jacobson: How did your parents feel about your attending Baptist services?

Dornsife: At that time I was starting to break away just a little bit and exhibit some independence, and I didn't talk about it a great deal; I just did it. When I was asked about it, I said, "Yes, I did go to that Baptist church," which was about a mile and a half from home, and they said, "Why do you go there instead of the Lutheran church?" I said, "It's three miles to the Lutheran church, and this Baptist church is only a mile and a half." And particularly in the wintertime when there were heavy snows, our area got down to twenty below zero. Snow would drift eight to ten feet high because of heavy winds. They finally accepted it, and it wasn't discussed any more.

High School Years, 1929-1934

Jacobson: You started high school when the Depression hit?

Dornsife: That's right. Nineteen twenty-nine was the first year, and '33 was the year that I graduated. We were the Depression class.
We went through the stock market collapse and the heavy bread lines that became prevalent in our area.

Jacobson: Did you have any particular academic interests by that time?

Dornsife: Initially in high school my goal was to be the world's greatest machinist. I took a trade course, as it was called, which required that I spend all afternoon in the machine shop class at the high school. I did that for three years until a fortunate experience caused me to change that goal.

Inspirations from Herbert DeCroes

Jacobson: What was that experience?

Dornsife: To get it into its proper perspective, I should go back to my sophomore year, when I had a very fortunate experience: a great man touched my life and made me different from what I ever could have been, had it not been for that. One of my teachers in high school, Mr. Herbert DeCroes, my drafting teacher, was one of the great human beings who looked beyond just the classrooms. He had observed me playing basketball during my freshman year in gym class. I hadn't gone out for basketball because I was afraid to do that. I was, in fact, frightened to death at the thought of it.

At the start of my sophomore year he said, "Dorny" (that was my nickname), "I've watched you play basketball in gym class, and you really are pretty good. Why don't you go out for the team?" I said, "Mr. DeCroes, I couldn't possibly do that. I would be afraid to do it." He said, "Look, what are you afraid of?" I answered, "I couldn't go to Mr. Shake, the coach, and ask him to check out a basketball suit." He said, "Let me take you with me, and I will introduce you to Mr. Shake. I will tell him what I have observed and we'll let him decide. Would that be okay?" I said, "If that's what you think is right, Mr. DeCroes, I'll do it."

We went down and met Mr. Shake. I got a suit, and in that sophomore year I made the first five on the second team. They also had a varsity team, and they also had a second team--two separate leagues. And so, in that sophomore year, I had the great and wonderful experience of having that happen. In my junior and senior years I played varsity first five.
My second great experience with Mr. Herb DeCroes occurred late in my junior year. He came to me and said, "Dorny, I’ve watched you play basketball. You’re doing a great job of exercising your body, but you aren’t exercising your mind. I’ve looked at your course of study, and all you’re taking is machine shop. Now, you need to think about going to college." And I said, "Mr. DeCroes, I couldn’t possibly consider that. My folks wouldn’t want me to do it. We don’t have any money." I gave him at least a half dozen reasons why I couldn’t do it. He said, "This is Thursday afternoon. Now, I want you to leave this office and come back next Thursday afternoon, a week from now. During that week, I want you to write down as many reasons as you can think of about why you should go to college."

I came back, and he helped me sell myself on wanting to go to college. So I then was faced with the question—I wanted to go to college. He helped me rearrange my curriculum so I could take algebra, history, and some other college-prep courses to start me on my way toward getting a college education.

I graduated at the end of four years in my trade school course. I was shy about fifty units for college entrance requirements because I hadn’t taken enough college prerequisite courses. I went back a fifth year, which Mr. DeCroes helped work out with the principal, at no extra expense. At that time I took geometry, physics, chemistry; and I suddenly had my eyes opened to a completely new world, which was chemistry.

I didn’t begin to realize how exciting a subject can be. I spent many of my spare hours in a library reading chemistry books. I liked physics also, but chemistry was the story of how things were made to happen in a special world that I hadn’t even realized existed before.

During that fifth year I also played amateur basketball throughout Northern Indiana on a team, and had a great coach who helped me become quite a star on that basketball team. Mr. [Earl R.] Irwin was his name. That was the fine and thin thread which lead to my getting a scholarship. Can I tell you about that?
Receiving a Basketball Scholarship to University of Southern California##

Dornsife: Mr. Irwin, by coincidence, in this thin thread I'm going to describe to you, was close friends with Mr. Everett Case, formerly the high school basketball coach at Frankfort, Indiana, High School, but because of a problem he ran into at Frankfort, he left there for two years and became the assistant head basketball coach at the University of Southern California under Sam Berry, the head coach. Because of this friendship between Mr. Irwin and Mr. Case, there were letters written back and forth that I didn't know about, in which Mr. Irwin recommended to Mr. Case, and Mr. Case said he would consider recommending me for a basketball scholarship to USC. The summer of 1934, Mr. Case returned to Frankfort High to be their head basketball coach again.

I hitchhiked from Mishawaka down to Frankfort, about 110 miles, to see him. I took my satchel with my basketball uniform and shoes in it down there, met Mr. Case, dressed, and he said, "Dorny, you go out and shoot about a half dozen baskets, but each time you shoot a basket, I want you to follow up immediately. I also want you to do some dribbling here as part of your exercise."

As the good Lord would have it, I stood out and took my first shot; it went through, I charged in, got the ball, dribbled back out, started to take my second shot, and he said, "Dorny, I don't have to see you any more; you're okay." And he said, "No, you're here, go ahead and shoot some baskets. I know you'd like to work out a little bit. You've gone to all this trouble, but you're okay." And that was it.

The letters came back and forth. Fortunately, my parents knew nothing about any of this. And I didn't tell them about it until a week before I left. I had gotten a job that summer as playground director in one of the parks in town, saved my money, and I bought presents for my parents and told them a week in advance of the time I left that I was going out to USC to go to school. This was quite a shock to them, but I gave them all the presents I had, and it took me down to five dollars that I had remaining.

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1See Appendix I, "Letters and Postcards from Mr. Earl R. Irwin to Harold Dornsife, Summer 1934."
The Trip from Mishawaka to Los Angeles

Dornsife: Another great piece of this puzzle was Mr. Lowell Spencer, who had been the principal of my grade school, a person I had continued an acquaintanceship with. He was well-acquainted with one of the officials at Studebaker Corporation in San Francisco, and during the course of the summer of 1934 he had worked out with them that I would get a job driving one of their cars and pulling another in a caravan of new Studebakers. That was my board and room to get out, because I didn’t have the money to get a train trip out.

That was the way I got to Los Angeles. When I arrived there it was a Sunday afternoon, and I didn’t have any place to stay, and I didn’t have money to pay for it, but one of the fellows that I had gotten acquainted with on the trip out said, "You can come sleep on the floor in my hotel room," which I did. The next morning I didn’t have money to buy breakfast; I had twenty-three cents in my pocket. It took a nickel for the street car from downtown Los Angeles out to USC, so I had eighteen cents when I landed on the campus at SC with my basketball scholarship.

I had this old suitcase that had a rope tied around it because it was in such disrepair, and as I walked on campus I stopped and asked this man who was coming toward me if he could tell me where the athletic department was. He said, "Why do you want that for?" I said, "I have a basketball scholarship, and I’m supposed to see Mr. Wilcox there." And he said, "You must be mistaken. You must be going to UCLA. That’s way across town. You don’t have a basketball scholarship to USC." He just looked at me, and I said, "No, I do have a scholarship, and it’s to USC, and Mr. Dutch Wilcox is the gentleman I’m supposed to see." He said, "You’ve got the right name," so he pointed me the way to the student union, where the athletic department offices were. I met Mr. Wilcox there, signed up, and that started my scenario for an education at USC.

Surviving the Depression

Jacobson: I want to take you back just a little bit to the Depression class and find out more about how you juggled school and all the work you must have been doing during that time.

Dornsife: This was a neat and challenging piece of my puzzle, because when I went out for basketball in my sophomore year I had to stop my newspaper route, so I didn’t get that income. That meant that I had to work elsewhere. I was able to find two or three jobs, and they paid me the exorbitant rate of ten cents an hour. But they allowed me to continue to do what I had started doing at age twelve, and that was to buy all my clothes; my parents didn’t buy any of my clothes from age twelve on. I did it initially because I thought it was a proper assumption of responsibility, but then I continued to do it because my folks needed that kind of financial help.

My father was reduced during the Depression to two days per week from his five days per week in bootmaking. Fortunately, our farm allowed us to survive and never be hungry. Yes, some of our clothes were a bit tattered, but all of us had enough food and we were always warm. The odd jobs I was able to get to fit in in place of the newspaper route took care of me all right, and I continued to work on our farm during the late spring and the early fall, as well as the summer when I was off school. My folks would give me 10 percent of what I sold, so that was another source of income; farming was a 10 percent commission.

Jacobson: Were you selling more of what you produced during the Depression, or was it about the same?

Dornsife: Actually, we were selling more. Fortunately, as I got bigger I was able to do more work on the farm. I was able to do the plowing; I took over a lot of it from my dad.

I also was able to get into a separate business, and that was bicycle repair work. Bicycles were the means of transportation there. We just wore the wheels off our bicycles. Naturally, we couldn’t use them in the winter months with the snow, but otherwise they were just the greatest thing that could be to move you around, particularly for the long distances to church and to the lakes. They were real lifesavers. When you have a newspaper route that covers three
and a half miles, that’s a lot of distance. Yes, in the wintertime it was mean.

Jacobson: How did you do it in the wintertime?

Dornsife: In the wintertime you just spent the extra time. You walked, you carried a piece of garden hose in your newspaper bag to ward off the dogs, because in the wintertime dogs became quite mean in these rural areas back there. That was a piece of life’s puzzle at that time.

Bicycle repair work for my friends was a real good business that I established. I used my machine shop training, and the skills that I had learned about metals and the like, to great advantage in this bicycle repair work that I did.

Jacobson: Were your brothers working on the farm, too?

Dornsife: My younger brother was so young that I really never got to know him. He was seven years old at the time I left. My older brother was somewhat sickly. Part of it was real, part of it he found as a means of not having to work quite as hard as he would have otherwise. But my pride and my competitiveness caused me to stay in there. He would do some work, but not a great deal. He was a couple years older and was not as healthy as I; he was not as strong as I developed into being, and he was not interested in athletics. So he and I had very little in common insofar as doing things together.

**Buying A Rockne Car**

Dornsife: There is one great exception to that. And that is, actually, in the summer of 1933, after I graduated, my brother and I, because I sold him on it, decided that it would be so great to have a car. We had a friend who worked over at Studebaker’s, and they had manufactured a new car that was called a Rockne car. We lived within sight of the gold dome at Notre Dame at our home there in Mishawaka; out of the kitchen window we could see the gold dome at Notre Dame. (Incidentally, while I was back for the fifty-fifth high school graduating class reunion, I visited the campus, and they were replating that dome with gold leaf.) But we bought a Rockne car, and I have here a picture of that car, which came out in 1932. I thought you would be interested in seeing what it looks like.
Jacobson: What a beautiful car. I can see why you were eager to get it.

Dornsife: You can imagine the furor that raised: "How can Dorny possibly buy a car?" I was very frugal. I saved my money. My older brother had some. I put two-thirds of the amount in, he put a third in, and so we bought it together. When I left, I just gave him that. Through this friend of mine who coached a summer baseball team I played on, and who worked at Studebaker's, we were able to get a 20 percent reduction in the price because he bought it and sold it to us at his price.

More on Herbert DeCroes

Dornsife: That's a long answer to your very simple question, but without giving you all the pieces of the puzzle, I couldn't have completed the scenario having to do with what caused me to be interested in going to college. Incidentally, if I might just add, Herbert DeCroes has continued to be a good and close friend of mine. I talked to him the week prior to going back for the reunion, and got a message from him which he gave me to take to the class, and I was able to read his message to the class. He was the honored guest at the fiftieth graduating class reunion when he lived there. Since, he has moved to Carlsbad, California, and is living down there, near San Diego.

Jacobson: He sounds like such a wonderful man. Did he take a lot of students under his wing and guide them?

Dornsife: I don't know of any others that he touched the way he touched me. I think the Lord was at work there with him. Yes, he did encourage others to reach out and to look further, but I don't know of any examples where they were inspired to the extent that I was.
I1 UNIVERSITY EDUCATION AND EARLY PROFESSIONAL EXPERIENCE, 1934-1955

Balancing Chemical Engineering Studies and Basketball at USC

Jacobson: Why don’t we start up with your years at the University of Southern California.

Dornsife: When I arrived on campus, the varsity coach and the freshman coach were overwhelmed when I told them that I was debating between taking chemical engineering or pre-medicine. They said, "Dornsife, you’ve got to be kidding us. You can’t possibly be thinking of taking courses of that nature. Don’t you realize there are chemistry labs that start at 1:30 in the afternoon and go until 4:30, and basketball practice starts at 3:30; so you couldn’t possibly take either of those classes."

I said, "I’m aware that it might not be possible to take pre-med because I don’t have the money to go on to med school, but I would like to take chemical engineering. Would you mind if I talked with some of the professors to see if there was some way this can be worked out?" And they responded that, "You’re just going to be wasting your time. We’re telling you right now, it’s just impossible." I said, "Would you let me have a chance to talk to them?" They said, "All right. We’ll let you go ahead and do it, but we’re telling you right now that it’s a waste of time."

I went to the head of the chemistry department, and would you believe that he was agreeable to my coming in at six o’clock in the morning and having a lab for an hour and a half on my own, and then going to 1:30 lab in the afternoon until three? Then I left the lab at three, went to the gymnasium, changed, and was ready for basketball practice at 3:30.
When I came to the coaches and told them that, they said, "You've got to be kidding. That is impossible. They would have to give you a key to get into the building." And I said, "The head of the chemistry department said, 'If any athlete is that interested in an education and wants to be committed to that point, I know that he is trustworthy, and I'll get a key for you. But you won't last long under that plan.'"

I did start in chem engineering. I was eighteen units shy of entrance requirements, so I was a probation student, which meant I had to make "C" grades or better. I went my four years on my athletic scholarship, and I had to go a fifth year to make up those eighteen units that I was shy. I went to the president of the university, Dr. von Kleinsmid, and I told him of my dilemma--that I didn't have the money to pay tuition--and was there any chance that I could possibly get a fifth year of scholarship? He said, "This isn't customary, but you have taken an awfully difficult course. Tell me, what kinds of grades have you made in your course?" I said, "My last year, the fourth year, I've made between a B+ and an A-.." He said, "Am I hearing you correctly? You've been on a basketball scholarship, and you're making grades of that nature? Look, I don't know what I have to go through, but you have a fifth year scholarship."

And so it allowed me to go my fifth year and to get eighteen units on my master's degree. I went on and got the rest of my master's degree during the two years after I graduated in 1939, so I got my master's degree in 1941, the same year my great wife, Ester, also graduated as a pre-med student.

Meeting Ester Peterson, 1937

Jacobson: How did you meet your wife, Ester?

Dornsife: I met her in Berkeley, California, at a dance after a football game in the fall of 1937, when she was a frosh and I was a senior--or rather I was in my fourth year of my last year of eligibility in basketball.

There was a dance in the gymnasium at the University of California, after the game that evening. It was just an open
dance for any of the Cal or USC people to attend. I was there with my friends that I had driven up with, and she was there with her friends that she'd come on the train with. We met at that time.

I danced with her close friend, Libby Herd, who then introduced me to Ester, and we didn't come back to the group for about an hour and a quarter, or something like that. We got into such a great visit. I didn't realize until I brought her back that she was there with a date. So that was an awkward and difficult situation.

The sequel to that is that during our visit there, since Cal had just swamped USC in the game that Saturday, each of us represented that we were Cal students. The following Monday morning, as we walked down Bridge Hall steps at USC after our 10 o'clock class--and it was almost as if it had been orchestrated, one on one side and one on the other (she's left-handed, and she was on the left side; I'm right-handed, and I was on the right side)--we got about half-way down, and we turned and we looked at each other, and in unison we said, "Why, you dirty liar, you." That was how my great Ester and I had our introduction, and we were married shortly after her graduation with her bachelors and I with my master's in 1941.

Jacobson: That's a wonderful story. How did your chemical engineering studies progress at USC?

Dornsife: Actually, in my fifth year I was a straight A student, and I was so very, very fortunate. In my fourth year I was a B-student. I met my Ester, and she was there in the early fall of 1937. She was such an inspiration to me that I went from a B-student to an A-student during the year. In my fifth year, I got straight A's--A's, A+'s, and A's in all my subjects--once again because of the great inspiration that my Ester gave to me.

Jacobson: Did she go on to medical school?

Dornsife: No. It was a difficult decision, because we talked about what we wanted our lives together to be. We both wanted family, and we both felt that family didn't allow her to have a full-time career as a doctor. It was her decision; I didn't force her. I did tell her that I didn't want her to go ahead with medicine as a career and for us to try to have children, because that was just too much of a conflict of interest. She concurred, and has been that great inspiration and wonderful support that I have had since we met.
Dornsife: I had the great and good fortune that because of my athletic background I got a modest amount of publicity. As a result of that, unlike most of the students, because they were still tough years, I got around ten interviews from companies that came on campus, one of them being two gentlemen from Standard Oil. They did interview me, and invited me to come up to their engineering offices in San Francisco to visit during Christmas vacation in 1938. They came in the fall of 1938 to interview the 1939 graduating class. I went up during Christmas vacation, and was offered a position in their general department. I started with Standard Oil in June of 1939, after getting my bachelor’s degree.

Responsibilities as Junior Engineer at Standard Oil, 1939-1941

Jacobson: What was your first position there?

Dornsife: My first position was a junior engineer working on the design of the furnaces for a new refinery, a 3,000 barrel-a-day refinery that Standard of Cal was going to build in Saudi Arabia. It was going to be their first refinery over there, so it was a small refinery. I had the great and wonderful experience at that time, with no computers, practically wearing out my slide rule running calculations in the design of this furnace, working under a boss, John Senger, who was just a wonderful leader.

The challenge was so difficult that I not only worked the nine hours I was at the office, but I worked three, four hours at home practically each evening, and then also parts of weekends, because it’s a very complex design—a challenge, lacking computers. You couldn’t put in a formula; you had to run each of the stages in a heating process based on the curves that they gave to you, reflecting the various temperatures at which of the crude’s components would boil off.

That process of vaporization occurred throughout the tubes in this furnace. You had to constantly shift in calculations between the remaining liquid and what had actually vaporized.
and become gas. Then you had a temperature difference, but you also had pressure drop. So pressure was changing and temperature was changing constantly, and you had to make separate calculations for every tube, and there were about forty tubes that the crude had gone through.

But it was a great experience. I was in the general engineering department there for a year and a half before being transferred to their El Segundo refinery—a transfer which I had requested.

Transfer to Standard Oil's El Segundo Refinery, 1941-1946

Jacobson: Why did you want to move?

Dornsife: I wanted to move because I had left college with a dream that I would go back to M.I.T. and get my doctorate in chem engineering, because I wanted to be a researcher or chem engineer. In that first year and a half working at Standard of Cal, I suddenly realized that I didn't want that at all; what I wanted was to get out in the middle of seeing what happened in the plant and work with people in running a refinery.

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Dornsife: I realized that I wanted very much to get out in the refinery to see how things worked, because as I sat at my desk and ran calculations, I more and more realized that I really didn't know what was happening. I was working on what I thought was happening. I wanted to see it firsthand at a refinery.

Fortunately, I had gotten acquainted with the chief engineer of the manufacturing department, and he helped me get the transfer from general engineering to the manufacturing department at the El Segundo refinery in Southern California—Standard Oil's refinery. I transferred there, and that brought me closer to Ester again, too. It also allowed me to continue more aggressively with my master's degree work in night school. After that year and a half, I went down there and was in the manufacturing engineering department.
Industrial Relations Section at California Institute of Technology

Dornsife: After I had been there about a year, I had another marvelous coincidence in terms of how life works, and that is that I was selected by Standard of Cal to get a full year's scholarship at Cal Tech to help them start up their Industrial Relations Section. Standard Oil contributed one person, and Union Oil contributed another. This was a marvelous exposure, because suddenly I got out of engineering calculations; I got out of refineries and was focused on people management and all those things having to do with what is now known as human resources development. That year was just a truly fantastic one. It also was truly fantastic because I married my great Ester in 1941. We had half of a duplex in Southern Pasadena, where we lived during the last half of my year there at Cal Tech.

Then I went back to the El Segundo refinery. I was offered the chance of going into their industrial relations department, but I wanted to do some of these things that I had been talking about and looking at, and I just had a great and special experience there at the refinery.

I was transferred at that time from the engineering department into the operating department, which meant I was right down among the plants. I completed my tenure with Standard of Cal at the El Segundo refinery. I was on twenty-four hour call, six days a week, as part of that, and was just learning a great deal about how to build and develop people. The calls became fewer and fewer as I worked harder and harder to develop and build people. I was initially averaging something like four calls a night. I was able to develop a team to the point where I would get a call about once every three nights, something like that. I was able to prove to myself that what I had learned at Cal Tech was truly meaningful.

Lessons Learned

Jacobson: Let me take you back to the Industrial Relations Section at Cal Tech and ask you what kinds of things you were learning there, and what kind of programs you were developing.
Dornsife: We developed, through a series of conferences with industrial concerns and their industrial relations departments, a series of seminars where we addressed primarily the question of selecting, training, and developing supervisory personnel. That was our project title. We brought in industrial managers from Lockheed and many other companies in Southern California, to capture from these experts how they went about these three processes and what the strengths and the weaknesses were in various approaches that might be considered. I was so very fortunate in being able to be exposed to these great people and to learn from this exposure.

Gerry [Gerald G.] Chappell was from Union Oil, and he and I worked with the staff that they brought in. Robert [D.] Gray was the director of this new Industrial Relations Section. He had come from the Wharton School of Finance at the University of Pennsylvania. They had brought in Mr. Arthur [H.] Young, who agreed to take a position on their new staff. Arthur Young had been vice president of industrial relations for U.S. Steel. So Art Young was there for our guidance, in addition to Bob Gray, who was the director and who remained with them for a number of years. At times we were on fifteen-hour days in order to get prepared for the seminars, and then to accumulate information from them and get them converted into a form that was publishable.

Training New Managers for the War Effort

Jacobson: So there was major emphasis on management training?

Dornsife: Yes, because this was the era during World War II, and there was a great deal of special effort needed to retrain individuals for supervisory positions because so many were being pulled out of industry and used in the war effort. So as they left industry and went to the military, great gaps were developing. I was at an age where I was subject to having to go into military service, but in each case--I didn't advocate one way or the other--Standard of Cal was able to demonstrate that I should not be inducted because I was too valuable in the war effort.

During these years of El Segundo, we had offshore bombings by the Japanese. We were involved in making high octane
gasolines there, and shipping it out in major tanker quantities. I had the great and fortunate experience of working with the Russian consulate in Long Beach, which in itself is a separate story in terms of the difficulty of working with the Russians, but what a great exposure it was for me to learn to work with obstinate people. So I had broad exposure there.

As I finished up with Standard Oil, I was manager of operations planning and was being transferred in a similar position to the Richmond refinery, which was half again as big as the El Segundo refinery. It was at that time that I elected to go to C. F. Braun & Company.

Jacobson: In these industrial relations seminars, was there any sort of attention paid to integrating women into the workforce?

Dornsife: At that time there was no focus on that at all. It was a prejudice that existed at that time. In fairness, I mean to explain that these were high tech jobs, and women at that time were not students in our engineering colleges; so it was virtually impossible to consider them for any of these high tech supervisory and management positions.

C. F. Braun & Company, 1946-1954

Jacobson: Why don't we go on to C. F. Braun and your responsibilities there?

Dornsife: At C. F. Braun I started out as what they call a process engineer. A process engineer works on the basic chemical and hydraulic and heating transfer processes that go to make up a refinery unit. You run calculations on what they refer to as heat and material balances that you need to prepare for each refinery process. We worked on about a dozen different processes, including the simple fractionation of crude oil, up to the highly technical catalytic cracking of heavy residuals. That lasted about two years, at which time I was promoted to an assistant project manager, and within six months after that, a full project manager, which meant that I not only had the

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1 See pages 32-33.
process engineers but I had all the design engineers answering to me on a specific project.

Refinery Consulting Service

Jacobson: Were there any new management challenges at C. F. Braun?

Dornsife: Yes. I introduced a new management challenge with a concept that I gave to Jerry Ross, who was the chief project manager. I suggested to Jerry that C. F. Braun & Company initiate a consulting service to refineries, wherein C. F. Braun & Company would go in and analyze a refinery in terms of whether it was using the right processes to run its operation most economically. Jerry, being a visionary kind of person also, thought this would be a good idea. He tried it a couple of times with Mr. [Carl] Braun, and then on the third occasion Mr. Braun said, "Why don't you ask Dornsife to prepare a suggested plan for this?"

My suggested plan was that I would go ahead with this work, under the guidelines that I would be allowed to select four or five individuals who I would want as my staff, based particularly on their having had refinery background, but also based on the fact that if we worked for an oil company I would be answering to the president of that oil company. I did not want to answer to a vice president of manufacturing or some lower level person, because if I did I would be subject to going in and criticizing what he had been doing. I didn't want that kind of resistance. It took about a year to put this piece of the puzzle together, but it did go to conclusion. I worked at this for about three and a half years, my last three and a half years with them.

Tidewater Refinery Project

Dornsife: The final project that I was assigned to was to work for a Tidewater Associated Oil Company back in Baytown, New Jersey, where they had a major refinery. I was to select my team and to take them back there and spend about six months analyzing their operations. To make a long story short, this was one of those pieces of magic that was beautiful, because Mr. Dave Staples was put in by the Getty family as the new president of Tidewater Oil Company. They were losing in the neighborhood of $5-$6 million a year in their East Coast operation.
Mr. Staples was under the gun, and a wonderfully responsible individual. This project lasted almost two years in total, from the time I started on it. The culmination of it was that Tidewater asked us, through my team's recommendation, to design and build a new refinery at Delaware City, Delaware, at a big price of $145 million.

Mr. Ross had asked me to be the project manager for a new refinery at Tidewater if Braun was awarded the job. The tortuous path of these two years had all of the dimensions that would be so great for putting into a movie, because the vice president of manufacturing happened to be a close friend of Mr. Braun. His name was Herschell Hyde. After I had been on this consulting assignment for about nine months, Herschell Hyde went to Mr. Braun and told him, "You get this guy Dornsife off this project. He is causing me all kinds of trouble back there. He is making all kinds of statements that are getting me into trouble." Mr. Braun didn't take the trouble to ask what the statements were, but they were statements having to do with a number of individuals in the maintenance department who were not retired at age 65. They had a number of them in the 66 through 75 age range, who just sat around all day; they had a nice deal going and a free ride.

These were things I was calling to Mr. Staples' attention. This went from Mr. Braun through Jerry Ross and back to me. He said, "Hal, you're making waves." I responded to Jerry, "I'm only telling the truth to Mr. Staples, and if the truth is making waves, Jerry, what would you want me to do?" He said, "We better set up a meeting with Mr. Braun and talk with him about it."

This occurred maybe two months after the initial warning. Mr. Braun, in that meeting, dictated to me exactly what I was supposed to tell Mr. Staples on a number of issues. I thought, after Mr. Braun made his comments, that he ran his company with a tight fist. He was accustomed to having people kneel and scrape when he gave an order. I hesitated for a couple of minutes, and he said, "What's the matter, Dornsife? Can't you talk?"

I said, "Mr. Braun, I'm faced with a very difficult response. With all due respect, if you want someone to tell Mr. Staples what you have just relayed to me, you need to find someone else to carry the message. I think you should take me off the assignment, because Mr. Staples trusts me completely. He has frequently asked me to come in his private office, and
has said, 'Look, Hal, I want you to dig into this. I feel that this isn't quite right. I want you to dig into that.' He knows that what I come back with is completely honest. He trusts me completely. He's already told me that he knows what my likely conclusions are going to be. He says, 'If you do recommend a new refinery, Hal, I want you to build it for us.' I said, "These are super confidential visits that I had with him, with a man who trusts me. I wouldn't in any case want to say something that wasn't true, but particularly in these circumstances I would respectfully ask you to get someone else to tell him those things."

Months later I found out that Jerry Ross was told to can me. "Terminate that guy Dornsife. I will not have anybody in my organization who is that arrogant, who refuses to follow my orders." Apparently they went for a couple of months, wherein Jerry Ross told Mr. Braun, "Mr. Braun, there's no amount of money we can pay anyone to tell the absolute truth over and over again. Hal Dornsife happens to be that kind of a guy. He was respectful in his comment." Actually, I didn't learn about this until nine months later. This was all behind the scenes. But the project went to the conclusion.

Our report went to Mr. Staples. We had several meetings in San Francisco with Mr. Staples, along with his top executives, vice president of sales and vice president of manufacturing, particularly. They were heated visits because of our disagreements. Here, a great benefit of my having worked in the El Segundo refinery just came through so beautifully. I knew what I was talking about. I didn't have to back down to anyone in terms of how a refinery should be run efficiently. It was, once again, such a magnificent exposure to conflict; so many things came out smelling like a rose.

During the three months prior to Braun's having awarded this new refinery, I had been contacted by a head-hunter asking if I would consider a position in Northern California. I had already accepted this new position before the job award, because my work at Braun was requiring that I spend over 50 percent of my time away from home. As you can imagine, it was extremely hard for me to leave Braun after being promised the project engineer position on this new $145 million refinery.

The importance of what I've given to you has to do with what is the foundation from which Hal Dornsife lives, works, what are his values, standards, and they all came out of what
we've been talking about. For whatever great and good fortune I've had in life, the undergirding of that foundation is what I live with and what I still use today. So please move to the next subject however you'd like to.

California Steel Products, 1954-1956

Jacobson: Let's talk about the head-hunter and how you were recruited at California Steel Products.

Dornsife: I was recruited to become the vice president/general manager of California Steel Products in Richmond, California, a position I took and I stayed with for two years. I met Mr. Herrick during those two years in a steel fabricators' trade association. It was during that time that he and I became acquainted, and I found later that his board had insisted that he bring in a vice president and general manager.

Jacobson: What kind of introduction to the steel industry did California Steel Products give you?

Dornsife: I had the great opportunity with them to take a company that was in the steel plate and structural steel fabricating business and use some of my Braun training. Braun fabricated large pressure vessels, fractionating columns, and the like in its shops. I got Calsteel into some of these sophisticated products, and was able to quadruple their business in the two years I was with them by taking them into areas they hadn't been in before.

This company, California Steel Products, had been owned by a Mr. George Bont, who had sold to H. K. Porter about a year prior to the time I joined them. H. K. Porter was run by Thomas Mellon Evans, who was the acquisition expert in the field. I learned a great deal during my two years with Calsteel, but H. K. Porter's ethical standards were totally different from mine. I did work with them on the acquisition of a couple of companies, but I could not do it and did not do it as they wanted me to. They were successful acquisitions that we put together during my two years with them, but I concluded and let them know that I was going elsewhere because their value standards and mine differed too widely.
Jacobson: What kind of products did Calsteel have when you arrived, and what did you move them into?

Dornsife: They were in what I refer to as the simplified area of steel plate fabrication—steel storage tanks, atmospheric storage, no code work of any kind. They would make bins and hoppers, that kind of thing. What I did was to move them into the highly technical, ASME, API code work, which required a far more skilled crew in the shop.

We were able to build that crew mainly from the people we had there. We got into the highly sophisticated fabrication of refinery pressure vessels, fractionating columns, and the like. That was the transition. We stayed in field erection tanks—yard tanks. We also got more into field erection of structural steel. The big and major change was getting them into ASME, API code pressure vessel work.

Jacobson: What kind of acquisitions did you do?

Dornsife: We acquired some companies that were not related to our work. I helped them in the acquisition of and the disposal of Taylor and Spotswood, which was a service center business, a company that bought steel and aluminum materials from the mills and sold these items to various small shops in the area. It was known as a warehouse company. We acquired it for, I think, a half million, and I was able to sell it to Jorgensen Steel for about a million and a quarter.

I thought that performance would give me more freedom in the next acquisition, wherein they wouldn't be asking me to misrepresent to the executives of the company being acquired that I was going to give them an elevated position. I couldn't do that, but that was their style.

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Dornsife: I then acquired a plumbing supply company in Portland, and they wanted me to go the same route again, not withstanding the demonstrated success. It was then that I concluded that their values and mine were just too far apart for me to stay.

Mr. Herrick, prior to that, had already asked if I would consider joining him. C. F. Braun & Company also had come back

1American Society of Mechanical Engineers, American Petroleum Institute.
to me and asked if I would consider coming back with them. The combination of two suitors and an environment that I couldn't live with allowed me to step aside and go with Mr. Herrick. It was a wonderfully wise and fortunate decision on my part.

More on Cal Tech's Industrial Relations Section

[Interview 2: 7 December 1988]#

Jacobson: I want to return to the period when you were a research fellow at Cal Tech studying industrial relations, because I thought that might be a period when you formulated ideas that you took with you into your later management experiences. Let's start with talking about some of the special problems that were facing Southern California industry at that time, and your knowledge of why the Industrial Relations Section got started at Cal Tech.¹

Dornsife: At that time we were in the middle of World War II, and industry faced many radical shifts to support the war effort. We were focusing on assisting the companies who were in conferences with us to establish a set of guidelines for what we referred to as job descriptions and job specifications. We differentiated between the two, saying that a job description is the work that the person will be doing; the job specifications are the qualifications that the person should have in order to perform that work effectively.

At that time it was not unusual, because of the urgency, for companies to just bring the person in on a trial-and-error basis, to find out if the person was capable of performing the work. We were able to help them to establish guidelines or checkpoints which did enable them, as they fed back their experiences, to perform at a more effective level and to reduce the number of significant errors in the selection process.

Jacobson: Did you encounter resistance to implementing a program at a time when everyone was focused on just getting the product out?

Dornsife: I wouldn't say that we encountered resistance per se. We encountered diverse views, and that is understandable, because we were approaching it from a standpoint of suggesting that

¹See also pages 20-22.
they be considerably more thorough than they had been in the steps that they took in each of these disciplines. As such, the rebuttal immediately was, "Oh, we don't have time; we couldn't possibly do that."

Then we suggested that we, perhaps, prepare some things for them which might serve their interests and thereby make it less of a burden for them to accomplish their objectives. These prepared write-ups were a part of what we produced to accomplish those objectives for them, to make it easier for them to train and develop what then was referred to as "industrial relations management" people--as opposed to the term used today, which is "human resources development."¹

Jacobson: What kinds of things would you suggest they look for in a supervisor?

Dornsife: The items that we suggested grew out of their first describing the nature of the position. The individual they might want as a foreman out in the shop, and how they would go about selecting that kind of person in what's called a line operation, as opposed to someone in the accounting department, which is a staff function. So what we helped them with was the identification of human characteristics that would be essential to the individual who would be considered for shop foreman, as opposed to an individual in the accounting department.

Jacobson: Some of those characteristics would be--?

Dornsife: The shop foreman and his human relations abilities--his attitudes, his outlook on people, his views of human beings; his approach to motivation; his approach to the organization of his effort; his ability to think in terms of planning the work; and characteristics of that nature. In the accounting area, the approach was more focused on the individual who had demonstrated a love for numbers and a facility with the handling of numbers, someone who would be satisfied and rewarded if they devoted a good portion of their day to working with numbers, and would be satisfied personally with the end product of their efforts.

I give these two because they are contrasting. The work product for an accountant is a series of numbers which, if done

¹One such publication was Selection of Supervisors, Harold W. Dornsife, Bulletin No. 9, Industrial Relations Section, California Institute of Technology, Pasadena, California, 1944.
properly, tell a story. The work product of a foreman is the building of a finite item, which can give him a great sense of pride because he sees that physical item there as a result of his effort and the effort of those individuals who are subordinate to him.

Jacobson: Could you evaluate what kind of an effect the war had on receptivity to new ideas about management-labor relations?

Dornsife: The war accented the importance of giving consideration to many of these factors. Prior to the war there had been a fairly relaxed, non-aggressive approach to many of these fundamentals. The end result of this was that each of the companies that were heavily involved in the war effort did become far more sophisticated in their efficiency and effectiveness in carrying out the various disciplines that were part of the whole business process. So a great deal of good came out of it.

Because things were moving so rapidly, they were learning in two ways—one by the mistakes they made, and the other by the successes growing out of better management planning.

Jacobson: How would you describe the change in tenor of labor-management relations over that time?

Dornsife: I think hectic would be the principal word to describe them [laughs], because change was taking place so rapidly. Materials shortages became a major problem during the war years, many other variables changed widely, and the management of change itself was one where they became much more astute at reacting and responding to that and to the seeking of alternatives.

Jacobson: What were some of the principles of industrial relations that Cal Tech was teaching? Is there any way to boil down the essence of what Cal Tech was after?

Dornsife: To put your question into perspective, Cal Tech did not have an Industrial Relations Section before the time I came there. Cal Tech was at a stage where they recognized that in the educating of engineers they were failing to educate them on the human dimensions. So this year was a year of self-development—the establishment of the industrial relations section—such that it could, in ongoing years, impact the quality of the student who graduated from Cal Tech.

Ours was at the embryo stage of the effort, and toward the end of the year we were finding that the classes were beginning
to get rather exciting to the students. But it was initially a force-feeding of an element which many of the engineers disliked—saw no purpose in. And yet, as we progressed during the year, the students became more and more aware of the importance of learning the industrial relations dimensions which they would face in their careers. The section has continued, and still exists there, and is a very effective and important part of their curriculum.

Jacobson: In some of the Industrial Relations Section publications I read, one of the things that was talked about was solving problems through cooperation between management and labor in such a way that would increase the size of the pie to be divided—creating "win/win" situations. Was that something that was brought home in your experience there, and then later?

Dornsife: That was a belief that we strongly advocated. But the test of that, insofar as my career is concerned, has to do with what I've done with it. Total bonuses paid to executives and employees last year, out of Herrick Pacific Corporation and their subsidiaries, was over $3 million. So I think that tells it faster and better than any other principles or words that I might use.

We have strongly advocated this principle. As a matter of fact, at the time I went to work for Mr. Herrick my prior salary had been $25,000 a year, and I took a $5,000 a year cut in salary in return to his agreeing to an executive bonus plan which would have part of my reward based on my ability to get results.

I also made use of this executive bonus plan with Herrick's top executives. The large sums we have paid to them have been criticized by our banks, mildly, and by our auditors, mildly.

It is interesting, though, that there are some negative dimensions that are a part of that. That is, that if you pay a handsome bonus to an individual who is at a department head level in a profit center and he personally is unable to manage his personal finances and goes out and just blows it, he can actually damage himself and he can damage the company. Because he overextends himself, because suddenly he anticipates every year that this is going to be the case. We've had that happen in two or three cases in the last twenty-five years, where individuals self-destructed because of this. That doesn't mean that the plan was wrong. It does mean that you need to have a
sensitivity to that as one of the unexpected dimensions that could be a part of it.

I think that fairly well sums up the experiences that I had and the implementation of those experiences. Out of this experience, Lockheed offered me a position, wanted me to come to work for them because of what they thought they saw in my performance at the various conferences which I led. I also elected to leave engineering at that time and go into operations at Standard of Cal, because I saw a greater opportunity to make use of and implement the things that I learned during that year. And I did so: my last three years at Standard of Cal were in the management of operations.

Working with the Russian Consulate in Long Beach

Jacobson: The other thing that I wanted to return to was your work with the Russian consulate in Long Beach.

Dornsife: It was a great educational experience for me, because I had never before worked in an environment where dishonesty, misrepresentation—say anything if it will gain you an edge—had been the status quo. I learned and reinforced my prior beliefs that the greatest single attribute of any key person that you might wish to employ is basic integrity. If the individual doesn’t have that, forget about the skills. So it was a wonderful learning experience.

Jacobson: What was it exactly that you were doing with the Russian consulate?

Dornsife: The El Segundo refinery was a petroleum refinery, where we took raw crude and made a variety of products, including high octane gasolines and fuel oils. The Russians were acquiring these products from Standard of Cal. We had a wharf that extended out some distance into the ocean, where the big tankers would dock. We had pipelines running out to this wharf, and we would fill their tankers. As they had a continuing need for these fuels for their aircraft and for their ships, we were in constant contact with them, supplying their needs. I will call them a customer, because that’s what they were.

With our other customers we had a basic master plan, which we seldom abandoned, which allowed them to plan in advance so their tankers would be routed to our wharf consistent with our
master refinery operating plan. With the Russians, they would call the day before and say, "We're coming in for thirty thousand barrels of high octane gasoline, all as arranged with your San Francisco office." In developing it, you found that there was no such arrangement as that. They used every pressure they could bring to bear to get you to abort your other customers, reconnect the pipelines in the refinery, and satisfy their needs.

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Dornsife: Their strategy was one of frequently changing individuals at the Long Beach office. One would try his series, and then the next one, and so on. We never did develop a relationship with them which was honest and responsive.

Assessing a Prospective Employee's Integrity

Jacobson: Given your conviction that integrity is a critical attribute in an employee, how would you go about assessing integrity when you selected new employees?

Dornsife: This is an excellent question, and a very difficult one to answer because the quick answer is, "Oh, well, we just check references." But in the real world, those individuals you call owe you nothing, don't know you, and they aren't going to tell you about the negatives of this individual if they are a semi-friend or a friend of that person. We did develop interview techniques which would tend to let people cross themselves up. And we would study the resumes carefully in order to set up a series of questions which would end up with them contradicting themselves if they were inclined to do so. This was helpful.

Jacobson: It must have made for a tough interview.

Dornsife: For top executives we used an industrial psychologist, to get his professional help on sensitive positions. It's a toughie, because there are a great many people who really want to be honest, but for ego and many other reasons they aren't able to quite come through. The lie detector tests were tried for some time. I never did try them, but they were a tool that some companies felt they could use successfully. Probably the most effective tool of all was to be creative in finding others who had dealt with this individual, and calling them, even though
the candidate didn’t give them as a reference. So we tried to be more and more creative in tapping resources.

Jacobson: Did the industrial psychologist use psychological tests or an interview format?

Dornsife: Our industrial psychologist used both. Insofar as integrity was concerned, I don’t believe there were any tests that they used for those. There were a number of tests that they used as an assist in evaluating top candidates; vocational interest tests were one of the categories.

Another technique that we always use for key people is that a minimum of three of our top people will interview the person, and we will then meet and compare notes to see if the story is consistent.
Joining the Company

Dornsife: I joined Mr. Herrick, taking a $5,000 cut in salary, as I was $25,000 a year with Calsteel and I dropped down to $20,000 a year to get within Mr. Herrick's boundaries. But also Mr. Herrick, at my request, in return for that put me on an executive-bonus plan which provided me with a fairly attractive bonus if the profits for Herrick would exceed more than 15 percent of the net worth of the company. The net worth of the company when I joined it was $1 million. To make a long story short, in the next four years with Mr. Herrick, that executive bonus plan paid me some $75,000-$80,000 as bonuses, so I more than made up the $5,000 that I lost, and also my salary increased during that four year period.

Jacobson: Another fine negotiation.

Dornsife: It was. It was one that was just so beautiful, because Mr. Herrick knew what the earning capacity of the company was. He had been with it for a number of years; he worked summers for Herrick while he was in college.

Herrick had a net worth of $1 million when I joined them. He had no idea at all that I would double that net worth in the next three and a half years. It was up to $2 million four years later. It was handsome for him and handsome for me; we both won, is what I'm saying.

I'm a great believer in the principle. You look for ways to go about business logic and strategy where everyone has a chance to win; you don't have any losers in it.
Buying the Company

Dornsife: This growing and increased pressure was the dimension that made him, after I had been with him for about three and a quarter years, come to me and say, "Hal, you know, I can't handle this growth at the rate you're moving the company forward." And I said, "I'm terribly sorry, Gale; I thought I was taking a load off you." He said, "You work these long hours, Hal, and out of all respect, I've got to stay here the same hours that you do." I said, "Mr. Herrick, I don't feel that you need to, but if you do then I leave it to you." Then he said, "Hal, I'm having terrible migraine headaches, and I want you to just slow the company down; stop it right at the level it is. I don't want you to cut it back, because I think I can adjust to the present level of doing business."

The company was doing around $4 million a year of business at the time I joined them. But the important piece of the puzzle was that we found ways to make it so much more profitable than he had ever thought it could possibly be. In our discussion, when he said slow it down, I said it wouldn't be any fun for me to slow it down and not continue to reach out. I said, "I'll go out and find you a new vice president/general manager, and I'll stay six months or a year, if it takes that long, to train him to take over my job, and then I'll go off and find another challenge. I've wanted to have my own business, so I'll go out and take a look at that."

Then he said, "Why don't you buy Herrick?" I said, "Mr. Herrick, I'm just an average guy; I don't have any money of that nature, and I couldn't possibly do it." He said, "You know, Hal, in the three and a half years we've been together, that's the first time you haven't taken on a challenge I've thrown at you." I stopped for a moment and said, "Mr. Herrick, I'll be back.

It took me about eight months and the help of great people: Mr. Herrick himself and the Bank of America, who agreed to take on 40 percent of the ownership, and I would take 60 percent. With Mr. Herrick lending me some of the purchase price, and Bank of America lending me a nice amount, and wisely, I was able to get the bank to agree that I could buy them out at their original price plus a certain interest rate each year.
I was a very fortunate person to be the first one in what the bank was starting at that time, called Small Business Enterprises (SBE), which was the bank's venture into projects of this nature--ownership of companies. So this brought me in touch with the executive vice presidents of the Bank of America and a number of others during the course of these negotiations. For a guy who had a $50,000 net worth, I had no right whatever to be acquiring a company that had a $2 million net worth; anyone would know that. But all the pieces went together, and we concluded on the purchase and sale agreement in May of 1960, for a closing effective July 1, 1960.

My great Ester and I have owned Herrick since then. We had 60 percent ownership to start with, and because we ran an even tighter show than I had run before, by reducing inventory and the like we were able to buy out Bank of America and their 40 percent interest in two and a half years. We were so fortunate.

I had a production manager who always felt good when he had a lot more steel out there in the bays and in the warehouse portion of the shop than he really needed. I didn't want to come down on him, but once I owned the company we changed the value standards and found that we could get along with considerably less steel inventory. The cash that was generated was the cash I used to pay off the bank's ownership.

That has allowed us to go from where I started with Mr. Herrick, at $4 million in sales a year, up to a little over $300 million in sales last year. So it has been an exciting and rewarding adventure in many ways.

I am aware that I have been a manager and an idea person within the Herrick team. However, I have been very fortunate in having many outstanding people join me and support our dreams and our ideas.

We now have the Herrick-Pacific Corporation, which is a parent holding company with five subsidiaries, one of which is the Herrick Corporation, which originally was the parent. We decided to go with this corporate plan, thereby providing for each of the profit centers to have a chief operation officer to run it and to be rewarded for his performance. We made this change about five years ago.

Jacobson: What are the other subsidiaries?
Dornsife: The others are Gillig Corporation, PSP Industries, Central Texas Iron Works, and Midwest Steel Erection.¹

Building A Business in High-rise Steel Fabrication and Erection

Dornsife: Herrick had fabricated and erected a number of different products. We explored the potential of each of these, asking ourselves the question, "Which of these do we feel we can be the best in, and should we drop the others in order to apply all our energies and skills to be the best in that one?" Our analysis was as follows. The reason that we dropped out of the reinforcing steel part of our business, the prestressed concrete tank business, and many others, and the reason that we went into high-rise was that our vision twenty years ago was that we had a good chance in high-rise on the West Coast, because this is earthquake country. We believed tall buildings would require structural steel frames instead of reinforced concrete, so we thought there would always be structural steel frames required on the major buildings in the western part of the United States. And as these great people and the good Lord would have it, we now have grown to the point where we take about 70 percent of the market in high-rise steel structures for buildings ten floors and taller.

That was the first example of carrying out the principle, "Let's select what we want to be. Let's don't continue to be all things to all people. Let's select what we want to be the best in." And that meant that we had to approach the three giants--the steel fabricating divisions of Bethlehem, U.S. Steel, and Kaiser, who combined had, at the time we started twenty years ago in the high-rise, 95 percent of the market for buildings ten floors and taller. Five years ago, all three had dropped out of the race; they couldn't compete with us any longer.

So we did demonstrate, rather vividly, that the principle was sound and solid, if you have the right people, properly motivated. We're not brilliant; we're committed, and we do work together. Togetherness is an awfully important part of our philosophy, and our people in the shop work awfully hard.

¹See pages 94-102 for discussion of these subsidiaries.
because they aren’t going to let those other guys beat us, because we are better and we’re going to show them.

Yes, we don’t work dumb, but we aren’t brilliant. There’s no individual brilliance any place that allows us to go where we’ve gone or to be what we are. It’s just that we do work together. We have Gillig this year; they will do over $100 million in their field of heavy vehicle manufacturing, and they’ll make a nice modest profit; but every other heavy vehicle manufacturing company will lose anywhere from $1 million to $12-$15 million in that business. That’s the extent of the outstanding performance that they are carrying out. In the last five years, over four hundred structural steel and plate fabrication companies in the United States have just completely dropped out of the steel fabricating business.

So our people once again had made some things happen that are pretty exciting, and we treasure them and we also reward them. We paid bonuses last year of about $25 million to our key executives. These are awarded primarily on formula basis, wherein they have performed over and above just average wealth. It’s exciting to be able to do that, and also one of my personal goals was to see if, through the use of these concepts, we might be able to build an executive up to the point where at the time he left the company he would have over $1 million in his pocketbook. That had happened three years ago last January, when Chuck De Kay, our vice president of The Herrick Corporation, retired. With the stock he had accumulated, which he redeemed at the time, and his profit-sharing plan, he left the company with--I think it was a million and forty thousand dollars.

So we did meet another tough challenge in the fun side of making things happen in people’s lives. Another guideline is that we make a difference in people’s lives that they might not experience were it not for the fact that they were part of our gang. That’s one that we continue to advocate and try to carry out in a lot of different ways. So my life has been touched so beautifully by these people, and I feel that many of them, in like manner, have been touched, and as a consequence it’s been an exciting adventure.
Product Lines

Jacobson: Before you bought the company in 1960--before it became a $2 million net worth enterprise--it was not quite as large a business when you first joined in 1956. I was wondering if you could give me an overview of the company operations during that four-year period of tremendous growth.

Dornsife: The company's principal businesses at the time I joined it were in the field of three product lines, the principal product line being light-to-medium structural steel fabrication and erection. It was also in a second business, which was the bending of the reinforcing bar and the placing of it for foundations and concrete structures. The third in volume was prison equipment.

The company was--as I now reflect on it--overdiversified compared to its management strength, and it was part of the reason why Mr. Herrick's board recommended that he bring in a general manager. The other reason for my coming in was that Mr. Herrick had hobbies that he enjoyed, and really wanted to be involved more in the performing arts and enjoy that side of life, and not press his nose to the grindstone in running the business.

That's just a brief reintroduction of where the company was at the time I joined them. Now, how can I help?

Management Changes and Improved Plant Facilities

Jacobson: Maybe you can take me through some of those operations and explain how it was that you had improved them to double the net worth of the company over that four-year period.

Dornsife: The principal thing we did was to improve our management team, both by bringing in occasional outsiders, but also by introducing systems, procedures, controls, and more frequent reports on operations than had been the case in prior years, with no criticism at all on Mr. Herrick. His lack of enjoyment in being out on the shop floor meant that he would go, but he didn't do it because it was fun. For me, I loved to be out there, to get to know the people as human beings, to find out what made, if you will, Johnny run.
Also, as you recall from the film,¹ part of the agreement in my joining Mr. Herrick was that we buy land and build a new plant, which, from April when I joined him to the following year in August, was a reality. So suddenly we not only had an improved management, but we had a greatly improved plant facility. And we continued to move toward the improvement of that. I think it was April 23, 1956, when I joined Mr. Herrick, and we actually moved into the plant July 1, 1957.

Jacobson: Did those management changes result in much increased productivity?

Dornsife: Yes, but more importantly, in this first fifteen months a great many new concepts were introduced. These new concepts were able to give us greater margins of profit on the work we did. Once we had our new plant in operation, then we had an awful lot going for us in terms of allowing us to diversify. We couldn't begin to consider diversification in the old plant in Oakland because it was closed in on all sides. But we were able to look at a broader spectrum of projects to build, as well as apply better management techniques. This allowed us to accomplish a great many things that couldn't have been accomplished had we remained in the Oakland plant.

Jacobson: Was the plant built in Hayward a state-of-the-art plant for the time?

Dornsife: I hesitate to use "state of the art" in describing a structural steel fabricating plant, or a reinforcing bar fabricating plant, because relative to the electronics industry, where state of the art is frequently used, they're just miles apart in terms of sophistication. The primary thing that the new plant did was to make it considerably easier for the shop man to do the things that I wanted him to do--move the steel less and apply their skills more readily. Because physically the steel just sat and went from its first sequence to its second and third, and moved along much more efficiently.²

¹Herrick Iron Works was featured in "Richfield Success Story," a television documentary produced by Richfield Oil Corporation in August 1957 as part of a series on successful Bay Area businesses.

²See pages 53-54 and 59-61 for more detailed discussions of streamlined shop methods.
[looks through papers] This was our office building that we built concurrently with the shop, designed by John Carl Warnecke, who was notable because of his doing the architectural work on the Kennedy Library.

**Corrugated Roof Structures**

Jacobson: Were there any new kinds of projects that you were taking on during that four-year period?

Dornsife: During the first four years? No, I don't recall any that we were taking on at that time. We did get into a new business, which I described to you before, in the roof design on the Wonder Building roof. We got into that as a new business, and we entered the prestressed concrete tank business during that four-year period. It became evident that, though the Wonder Building roof—which is a self-supporting roof structure—was a very positive move, insofar as we were concerned it did not turn out to have the potential that we thought it might for skating rinks and many other applications, so we did drop it.

Jacobson: What was special about the Wonder Building roof?

Dornsife: The special feature of it was that it was a corrugated roof structure that was crimped in such a way, and on an arc, that allowed it to be self-supporting. You didn't have to have trusses and all of the other intermediate supports that would otherwise have been required. It was a sheet metal roof that was preformed in a way that gave it the structural properties and the drainage properties that you would want in a roof. We were applying it on a seventy-foot span, which was a sizable distance to cover with this concept.

**Prestressed Concrete**

Jacobson: You were also involved in the prestressed concrete business in this period.

Dornsife: We entered a business of building prestressed concrete tanks. These were tanks for water storage and the like. [looking through papers] I don't seem to come across any pictures of
that. It was a business which called for our wrapping wire around a thin-walled concrete tank, thereby enabling the contractor to cut down to about one-fourth of the cost of the concrete. We developed a wire-wrapping machine which would draw this wire around it and, in essence, put a corset around it.

This was a product that offered potential, but not as great a potential as we had thought it would, because technologically other products came in, primarily new methods for prestressing concrete, which put this into second position in the longer run of our principal products. So we dropped out of that.

The new methods were primarily a new type of steel reinforcing which had much higher tensile strength and simpler methods for actually pouring the concrete than had been used previously.

**Competition from Bethlehem, U.S. Steel, and Kaiser**

Jacobson: One of the things that Gale Herrick mentioned as part of his decision to sell the company was unfair competition from the mill fabricators. What was going on with the mill fabricators?

Dornsife: At that time there were three steel mills that had fabricating divisions--Bethlehem, U.S. Steel, and Kaiser. Their objective was to sell steel. They were in the fabricating business because it aided them in the sale of their steel. But they were able to adjust prices or slow deliveries down to us, whereby we couldn't meet deliveries. If they made a fat profit on the raw steel, charging themselves the same price that they charged us, and lost a little money on the fabrication and erection, so what? The net benefit was great.

This was an extremely difficult problem to deal with. At that time we had no alternatives, just none whatever, that we could use to offset that advantage. They were dominant; they took, oh, 98 percent of the high-rise work--five floors and taller. They just dominated the industry, and it appeared that they would indefinitely. It appeared that there was little chance that anyone could overcome that great handicap, given the leverage that they [Kaiser, Bethlehem, and U.S. Steel] had.
It wasn't until about twenty-two or twenty-three years ago that we decided to get into high-rise work. But we knew we could do it only if we were able to get foreign steel. We were able to get steel from England and Japan and to work with them, independent of the domestic steelmakers. To make a long story short, today none of the three is in high-rise steel frame fabrication erection. Out of our Herrick subsidiary we do about 75 percent of the buildings that are ten floors and taller. We don't attempt to compete in the smaller buildings, because we prefer to work on the larger projects.

So Gale was correct in his assessment, that at that time we had no alternatives. The place where we could be competitive then was in the more highly fabricated work. We talk about highly fabricated when we compare high-rise, which takes maybe eight shop hours per ton of steel, to miscellaneous iron--ladders, platforms, and that kind of work--which will run in the range of twenty-five to fifty man hours per ton of steel. We were in this so-called miscellaneous iron, and we emphasized our capability and expanded our capability for a number of years in that field, accepting the fact that we couldn't buck the big boys in high-rise.
Buying Foreign Steel

Jacobson: When did the alternative of purchasing foreign steel present itself?

Dornsife: It presented itself about twenty-five years ago initially, when the British visited us and offered to sell us some steel. We bought a small amount of it. But the real breakthrough came twenty-two or twenty-three years ago when I decided that we wanted to get into high-rise. In order to do it we had to build a close relationship with the top-level people. I started traveling to England and Japan to nurture those relationships and develop the buying relationships wherein they would commit to a firm price long before we were ready to do any of the fabrication.

The domestic mills, knowing they had you where they wanted you, would stay with the price at the time of delivery. So if it took you six months to get ready, with drawings and all, and you couldn't start your fabrication for six months, they could increase the price 10 percent and there wasn't anything you could do about it, because that was the price at time of delivery. And they charged themselves the same "high price."

Jacobson: That must have made bidding a challenge, to anticipate what kind of price jump you were going to get six months later.

Dornsife: Yes. Prior to getting into high-rise we focused on the unusual project, where the engineering element and the assessment of the engineering dimensions were extremely important, where the difficult erection was very important, where the essence was on the management of the project, and having good, dependable people. That's why we were able to continue to make progress
in growth. But after having gotten to a certain level there was nothing left to challenge us, insofar as significant future growth.

So it was in that era that we were taking some significant risks. But we developed excellent relationships at top level, both with the British and with the Japanese steelmakers. Our growth escalated once we had established that.

Jacobson: Are those relationships still intact?

Dornsife: Yes, they still are.

Advantages of Contracting with British and Japanese Steelmakers

Jacobson: What kind of price difference was there between British and Japanese as compared to domestic?

Dornsife: It was interesting. In terms of price relationships, there really wasn’t that much difference in price. At the time we bid a project, occasionally we might get 3 or 4 percent less from the British or from the Japanese, but oftentimes it was just a match. But the thing we got from the British and the Japanese was that they would commit to a price for that project. Even though the steel wasn’t delivered until six months later, that price was still firm. We didn’t get a 10 percent increase in the price of steel. For a proper perspective, the cost of just the mill steel on a high-rise project is about 50 percent of the sale price. So you can see the leverage that did exist.

Jacobson: That essentially gave you more opportunity to do very precise planning and bidding.

Dornsife: Exactly. We could assess that major variable right at the time we bid the job. We didn’t have to try to get the customer to pay escalation, which the customer seldom would pay, because the steel mills didn’t ask for an escalation clause.

And we were able to get a number of other benefits in working with the Japanese and the British, tied to our money management. Any time a small company is trying to grow, suddenly you face some extremely difficult problems in financing this growth. You have inventory that you have to finance; you have receivables that you have to finance until
they get paid; and other costs associated with work in progress.

As we developed our relationships with the Japanese and, to a lesser extent—but still significant—with the British, we developed payment terms wherein we didn’t have to pay them for the steel until thirty days after it landed in our yard. We were able to negotiate with some of our contractors, because we were quite reliable from a delivery standpoint, to pay us for the steel when it physically landed in our yard. So there were times when we were actually getting paid for our steel fifteen or twenty days in advance of the time when we had to make our payments.

Once again, the building of these relationships with the British and the Japanese were the core of some of the things that we were doing to allow us to grow.

Jacobson: Were the payment terms something you negotiated right away, or was this something that came as the relationship developed?

Dornsife: As the relationship developed, I was dealing with a totally different culture. I had to become acquainted with it and do business the way they do business. These payment terms were negotiated, oh, four or five years after we started doing business with them, and they grew out of a mutual trust. We would commit to use their steel on a project, regardless what any U.S. company might offer to us price-wise; and they would commit for price and time of delivery. The great bulk of these were handshake agreements.

Developing Business Relationships with the Japanese

Dornsife: The culture that you deal with in the Orient is one where it is extremely difficult—it was at that time; less so now—if not virtually impossible to get any kind of a written agreement from them. Hence, the trust was built at the general manager level, and it was built through many visits over there, many visits to cabarets, many visits to geisha houses. Many times they tested me in a variety of ways to find out what my personal character was.

Jacobson: What were some of the tests that you were subjected to?
Dornsife: Well, each top executive had his favorite cabaret or favorite geisha house. In my third trip there they took me to this cabaret, and without my knowing it they had this young Japanese lady, who was quite fluent in English, who was all set to really find out what kind of a cat I was [laughs]. You are assigned to a lady partner in cabarets there, as you know, and she was a delightful person. Nothing would do but that I go to her apartment afterwards, because she had just moved into a new apartment and she wanted so much to show this apartment to me and how she had decorated it and all.

I was profusely thankful for the invitation, and she was sure that she had me where she wanted me, until I said, "Well, you know, you have been so gracious in your invitation, and my wife just loves to see interior decoration. We are going to be back in two months, and what I would like to do, just to save you time, is to have my wife come with me. She will, in fact, appreciate it a great deal more than I would." It was handled in such a way--and I didn't realize at the time that the ears of the Japanese were just flapping around there.

I didn't find out until a year later, from one of my Japanese buddies, that this was a plant and that this young lady was going to pick me for everything she could, all as part of their master plan. They repeated to me, two or three of them separately, and said--since the Japanese pronounce "l" like an "r"--"Har, you can't believe what an impression you made on all of us with the delightful manner in which you handled this whole thing. Every one of us thought you were hooked. You were so gracious and all in thanking her for the invitation, and you carried on other conversations and so on. You didn't cut her off right at the beginning. Then at a nice time you changed the subject by saying, 'Oh, it just occurs to me--my wife is going to be over here and she wanted to see the great blossoms in apple blossom time, which we've both heard of so much. That's just a couple of months from now'."

They said, "You included that; you made the whole picture so nice and beautiful and constructive that the lady wasn't at all put down. Her face wasn't slapped, you didn't reject her. You, in fact, enlarged your acceptance." This was a year later that I was being told this--twelve or fifteen months.

They said, "We have checked a lot of references on you through our associates in the U.S. We have watched your conduct. We have watched your word. You are just a very fine businessperson who is honest and who always does what he says he's going to do." This was a fun piece of life's puzzle as we
walked a course in those early years and established great relationships with the Japanese.

The geisha houses are, as you know, quite a separate type of entertainment, and only the top Japanese executives ever invite you to a geisha house. There is no hanky-panky at the geisha house—I shouldn't say there is none; none evident, as opposed to the cabarets. The fun of going to those, and the thing that turned out to be a real positive for me, was that the geisha girls like to do things that are fun one way or another—pillow games and so on. The fact that I would get involved and participate energetically in these games was something, I found out later on, that was quite pleasing to them.

They have wide-mouth glasses for your beer drinks. They take a rice paper, put it over the top of it, and wet it along the edges, and then see how many dimes you can put on it—they supply the money. The one who puts the dime on that causes it to break is the one who loses the game and has to do some silly kind of thing. These were also times when humanness and integrity paid great dividends.

**Relationship with British Steelmakers**

Dornsife: With the British, theirs was the very formal conduct. They enjoyed pieces of humor that got introduced by me in the discussions. Some of the friendships that I developed—very important, but it was a totally different set of dynamics that caused us to have a very successful relationship there.

We also were creative with them, because the quality of their product was somewhat less than the Japanese, but better than the U.S. quality steel. I had retired friends that I would send over to follow the mill rollings, just to make certain that they were rolled when they said they would be, and also to leave the impression that we were checking quality features. That relationship has been a wonderful one and a significant one as it relates to our progress in the steel business.

Jacobson: Thank you for those interesting stories. We’re glad to have them.

Dornsife: They are little vignettes that add to what otherwise might be considered a rather drab business.
Jacobson: We're jumping around a bit. I'm almost tempted to take you back to your first days when you were president of your newly acquired Herrick. Why don't you tell me what your first moves were as the new president.

Dornsife: I was so deeply in debt, personally and company-wise, that I had to focus on money management as being the single most important element of the business that I had to improve. At the same time I had to continue the aggressive pursuit in the marketplace as we had in the past. I think the principal thing that happened at that time was that I probably worked an hour or two more a day, and Saturdays, as a means of implementing some things that weren't as readily implemented under Mr. Herrick's ownership.

The production manager, for example, insisted that he carry excessive amounts of steel stock, which tied up a lot of money. I was able, within the first couple of years, to generate considerable cash by bringing those down to maybe a quarter of the amount that had previously been there in inventory.

Otherwise, we as a family ran a tighter show. We didn't go out to dinner as much and the like, because we just didn't have the money to do it. We had to help our children understand that the budget was much tighter for a while. This went for probably two to three years before we started to adjust to a more relaxed approach to our finances.

I think the other significant piece of the puzzle was that we didn't want any of our friends to know that we owned Herrick. That continued to be a challenge, and still is even to this day. I'm still working for Mr. Herrick. Because except for our Hedco [Foundation] board members and maybe three or four of our personal friends--even most of our own relatives don't know that we own the company. This happens to be something personal that's important for my wife and me, so we run accordingly.

The biggest change that we made was that we just ran a much tighter financial show than we had previously. That allowed us, after I guess four years, to buy back the 40 percent ownership held by the bank. So it became 100 percent owned by us.
**Acquisition of Engineered Equipment, Inc.**

Jacobson: I believe you acquired Engineered Equipment in 1962. What was that?

Dornsife: That's right. Engineered Equipment in Waterloo, Iowa. Engineered Equipment was in the business of building ready mix concrete mixers and other types of mechanical construction equipment. We acquired it because we wanted to expand our existing prison equipment business into the eastern part of the U.S., and we couldn't possibly do it and handle the freight handicap of fabricating the steel out here and then shipping it to the East. We also had a distinct labor disadvantage. Midwest companies were paying their shop labor probably 60 percent of the amount that we paid on the West Coast. So the combination of the two prevented us from being competitive back East in our prison equipment business.

We also got into it because I just happened to like that field of business. The equipment they were building was for the construction industry. In a sense, our structural steel and our other products were going into the construction industry. We had the benefit of an understanding of the construction industry, and an opportunity to implement those concepts through Engineered Equipment.

It was a successful venture, and we kept it for about ten years. Then we sold it because we found that it was much too diluting of our management effort for our other businesses on the West Coast. As we grew and expanded our prison work into the East Coast--which is the heart of prisons in the United States--the problems of dealing with the mafia and others back there made the business so management intensive that we decided that we should get out of the prison equipment business, and we did. We sold Engineered Equipment to our Waterloo management. We sold the prison equipment business to our Hayward management for its product line. Both of these companies are still in business. We had been running them successfully, but they were so management-intensive that we needed to spin them off so we could focus our efforts on our West Coast business.
**Divesting Non-High-rise Product Lines**

Dornsife: We also, during that period, decided to get out of the reinforcing bar business, because we found there was little unique that we had available to contribute to that business. In the transition, as we went into high-rise, we said that would be our future. We are in earthquake country out here on the West Coast, and there's always going to be a need for steel-frame buildings to satisfy earthquake requirements. Fortunately, it was a wise decision to drop out of, progressively, the prestressed concrete tanks, the prison equipment business, and the reinforcing bar business, and to focus our efforts on high-rise.

Jacobson: Did you ever actually build prisons on the East Coast?

Dornsife: Yes. We did major work in Newark, New Jersey, and upper New York state. We had some major projects that we handled back there.

**High-rise Construction Projects**

Jacobson: This is probably a good time to start getting into the high-rise projects.¹

Dornsife: Bellevue Towers was the first high-rise project. The second was Mutual Benefit Life Insurance Building in San Francisco. Then we moved progressively from that point, as the books that you have tell you, into larger and larger structures. By coincidence, in my mail today there is a brochure having to do with the First Interstate Bank building and the [May 4, 1988] fire² in it. That's the one in Los Angeles, sixty-two floors. It was United California Bank at that time. It was a project that brought together the best of our skills as we took on the tallest building in the West. I think I gave you the brochure that says, "The tallest story in the West."

Jacobson: Yes.

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¹See Appendix II, "The Herrick Corporation Representative Project List."

²In Los Angeles' worst high-rise fire, floors 12 through 16 of the First Interstate Bank building were destroyed.
Dornsife: We continued to progressively take on bigger and bigger challenges until we hit this one [the sixty-two story United California Bank building], which is being put in second place with Library Square, the seventy-five story building in Los Angeles that's under construction now.

Bellevue Towers Project

Jacobson: Why don't we talk a little bit about your first high-rise. Since it was your first effort, were there special problems that you encountered that you hadn't anticipated? What were some of the difficulties planning for it?

Dornsife: The Bellevue Towers high-rise was our first high-rise challenge, and it meant that I personally needed to get out into the shop and look at welding methods, materials handling, and many of the things that we did, to make certain that we were approaching and in front in planning for peak efficiency.

Then we had to recruit experienced outsiders who knew how to do high-rise erection. I've shown pictures to you, and they tell you the story far better than words, insofar as that project is concerned. The work that we did with respect to this was work wherein we reevaluated all of our shop methods to make them much more efficient for this kind of work. And we reevaluated our field methods to make them more efficient. As a consequence, we were fortunate to have this as a profitable job--our first job!

Restructuring Shop Methods

Jacobson: How did you have to restructure your shop methods?

Dornsife: The restructuring of the shop methods was a matter of looking at every element of the work we did out there: how we received and stored the steel near the punches and the like; how we punched holes on a multiple basis; how we cut the structural members on a multiple basis such that we got the benefit of multiples, as opposed to doing things one at a time. We'd look for every opportunity to enhance our efficiency by having our people study the drawings. If there were twenty items that were exact duplicates, we went after trying to get all of those
that we could. Or if it meant bringing too much material in too soon, we'd do ten and then ten more later on if there were twenty total.

The number of method analyses we made were unending, insofar as looking at it primarily from an industrial engineering standpoint—time and motion study. I personally led the parade there, working with the shop people to get their ideas, but knowing that I didn't have anyone in the organization who could carry out this kind of thinking and planning. So I spent a great deal of time out on the shop floor, getting help from our people—getting their ideas and combining them into a master plan which allowed us to move along and turn the job out at a profit.

It was one that was developed with sufficient in-depth analysis that we were able to implement those same concepts when we went to our next big high-rise, which was the Mutual Benefit Life Insurance building in San Francisco, and then on into the others. My participation was less and less.

But the key here behind all of this, I need to tell you, Lisa, was the background of analyses that preceded all of this in terms of where did we want to be the best. And could we be the best in four or five different product lines, or should we pick one? And how did we go about picking one? We picked one because, as I've mentioned earlier, we knew we were in earthquake country, we knew there would be steel-frame buildings on the West Coast forever, and that we would start in this direction. If it did open, as we thought it might, then we would back off and finish getting out of these other businesses that we were in.

So it was within this concept that we evolved from what I like to say was a company, when I joined it, which had the motto, "If it's made out of steel, we can build it," to one wherein, "Let's be the best in one part of our business."

That's the transition that we went through over a number of years, with many meetings, many assessments of the risks, the variables, and the like that were a part of this business.

1See also pages 59-62.
Dornsife: We had taken on several unusual projects prior to the Bellevue Towers high-rise project. They are in the categories of unique projects and the like, but any business to be successful has to have a core—something that represents 50 percent of its substance. Not until we started with high-rise, twenty-two years ago, did we really have something that was significant. And that was the high-rise work which gradually, over the following ten years from its start in 1967, became 90 percent of the sales dollars and the tonnage that we did fabricate and erect.

The Mutual Life Benefit Life Insurance Building

Dornsife: The next project of any consequence in the high-rise field was the Mutual Benefit Life Insurance Building in San Francisco. It was a particular milestone also, because of the very strong competition against us. The mill steel fabricators—U.S. Steel, Bethlehem, and Kaiser—had dominated the high-rise structural steel frame market for many years. They took 95 percent of that business among the three of them, and they worked together in an effort to keep guys like Hal Dornsife from getting into it.

Jacobson: What kind of deals would they strike?

Dornsife: They had many kinds of leverage to work with. One, they had a long established record with the contractors who built these high-rises; friendships was a piece of it. Two, we had to buy our steel from them, and they could price that steel at an appropriate level. Furthermore, they could price their high-rise work at a loss if they needed to, as a means of keeping us from getting into that market. Because in so doing they blocked us, and we would conclude that that was the price level we were going to have to be efficient enough to match. If they could just make us conclude, as many others did, that, "Hey, we better stay out of that market," they had leverage. So those were the economic forks they had on two fronts.

It became evident to me that I couldn't possibly beat the economic challenge, because we were too small and just didn't have the financial muscle to take loss losers. This caused me, twenty-two years ago, to make my first trip to Japan for the
purchase of steel there, and we developed an excellent relationship with the Japanese. Also I did the same thing concurrently with British Steel Corporation. They were, if you will, partners in Herrick's effort to become something special in the western part of the United States on high-rise structures.

Developing a Reputation for Performance and Efficiency

Dornsife: There are several special projects that we might talk about--the Oakland Coliseum for basketball; the Sports Arena in Inglewood, Southern California, where we got the job because we were creative in a number of the things we did; the M-G-M Grand Hotel in Las Vegas, another one where the mills--because it was such a publicity item for them--just came at me like you wouldn't believe.

I had the great and good fortune that through steps of friendship I was able to make the acquaintanceship of the chairman of the board of the M-G-M Grand Corporation. Because of this, I was able to give our bid price directly to the chairman and know it wouldn't be shopped to the three mill fabricators by his or the contractor's people.

I had to give him my home phone numbers weekends, vacations, everything; that was part of the pledge I made to him: you call me if I'm in Europe, Japan, or wherever I may be, and I'll see to it that we do stay on schedule. We completed our steel work on that four months ahead of schedule, and he was so impressed that he got the word out to others about this gang at Herrick: if you want a job done, and you want it done right and on schedule, be sure to give them a try.

We developed a number of other friendships because of our performance, but we also continued to build our shop methods to make us much more efficient than the mill fabricators. We were able to find that we were doing our fabrication for 30 to 40 percent fewer hours than the mill fabricators could in their shops, and we were more efficient in the field, too, but more in the range of 10 to 20 percent. Because there you hire locally, and you don't have an ongoing crew that you can develop, as you can in your shops.

The number of major contracts that we had outside of the high-rise were also special and had lots of intrigue attached
to them. But the core, started twenty-two years ago, that we started to build was in high-rise. And the more we pursued that, the more we realized that that was what we should select to be the best in. That decision was made fifteen years ago. We gradually dropped out of some of the other business that we were in and focused on that, but left open other kinds of businesses that we might like to engage in.

The first major one of that nature was the acquisition of Gillig Corporation, for the manufacture of school buses at that time.¹

Overcoming Competitive Obstacles: Bidding Against the Major Steel Companies

Jacobson: Let me take you back to your first entry into the high-rise market. Did you encounter skepticism when you put in your bid?

Dornsife: Yes. In fact, there was a great deal of it. But the skepticism was focused mainly on the fact that the mills were able to get to the top executives and the owners' organization and tell them that Herrick had bid a price much too low and they were going to go bankrupt, that they didn't have the financial capability of carrying that out. As a consequence, these relationships that I and my people were able to build with the top executives and owners became a major help to us.

My building of relationships with the presidents of the major steel companies also came into play. We didn't have a chance to get the Mutual Benefit Life Insurance Building in San Francisco. The three mills had that one targeted.

The one who was the most understanding, in terms of the upstart who wanted to do a professional job, was Les Worthington, the president of U.S. Steel. Les had been the head of the West Coast operation prior to his going back east to be the president of the whole company. I became acquainted with Les, and we had a mutual respect for each other.

At the time of our first high-rise in San Francisco, the Mutual Benefit Life Insurance Building, U.S. Steel was making statements that were so grossly dishonest and disparaging that

¹See pages 94-97 for full discussion of Gillig Corporation.
I called Les. I told him I knew this was not his style of management; I knew that he did not intend to have this take place. I asked for his guidance with respect to how I should conduct myself on it, because I didn't want to fight with his company.

He said, "Hal, you've always been straight with me and honest, and I value your friendship. But you can understand that I want to talk to my people about this, and to find out from them exactly what has happened." He called me back the next day and said, "Hal, my people have withdrawn their bid on this project. I want you to know also, Hal, that what you said is true. I will not allow in my organization any dishonesty, any misrepresentation, and I'm satisfied that my people have been doing that. I apologize to you, but I just want you to know that U.S. Steel, through our subsidiary, American Bridge, will not be a competitor on this any longer."

Well, the owner and the contractor were so impressed with the fact that the president of U.S. Steel had that much respect for me and our capability, that we were awarded the job. It was our first big splash, because it was in San Francisco and it was in a prominent location. We did an excellent job in the performance of the work on that, and we worked awfully hard on it--extra hours at night and the like. At the end of the job all of our key people were given pocketbooks by me which said, "For Your Mutual Benefit."

Strategic Planning

Jacobson: Was it standard practice in the early days to work late to put in an extra good performance, or was that something unique to this job or to your company?

Dornsife: It was unique in the sense that our supervisory people were the ones who were working evenings. We didn't work the shop people evenings, and we didn't work the field people evenings. But we did a lot of strategic planning about how we could perform this work more efficiently and faster than we have been. What are some of the things we need to do?

Once again, it was people bringing their ideas together on a cooperative basis. There wasn't an inch of brilliance on Hal Dornsife's part that was a part of it; it was the combining of the ideas that allowed us to move along and become more and
more efficient as we handled that job, in the shop and also in the field. And we met the schedule. [laughs]

Having benefitted from building the Mutual Benefit structural frame--having established our reputation in San Francisco--that was the leading light. East Bay is one thing, and it's well down the level of meaningful accomplishments; but when you do it in San Francisco on a big one, you've hit a grand-slam home run.

From that point we had a great deal more respect in the industry, and did continue to grow on an orderly basis. We are currently taking 75 to 80 percent of high-rise steel structures, ten floors and taller, in the western part of the United States.

Jacobson: Did you develop relationships with the two other mills?

Dornsife: Yes, I knew the presidents of both of those. They were helpful, but they were not as in-depth in their help as Les Worthington, the head of U.S. Steel. The thing that happened, I think (but I don't know this), is that Les Worthington went to the presidents of those other two mills and said, "Look, let's go at old Hal with everything we've got, but let's quit bad-mouthing him. He's not that kind of a guy, but legally he knows that he could sue us for a substantial amount of money. But that isn't Hal's bag; he doesn't like to get deep and dirty." [laughs]

So it was a series of adventures and experiences there about which I'm not privy. I just know of the one, and how well that one worked for us. I had the fun, at the end of the Mutual Benefit Life Insurance building in San Francisco, to have pocketbooks of this nature [demonstrates] made. On the inside of it I had printed in gold the name of the person and, "For Your Mutual Benefit," which was a nice and fun kind of thing to do to recognize the great people and all they did.

Improving Shop Methods

Jacobson: One question that popped into my head while you were talking before was about the shop methods that you refined. I'd like to hear what you started from and what you went to, how it evolved, and what kinds of projects, if any, stimulated a refinement along the way.
Dornsife: We did several wonderfully innovative things in our shop in Hayward. Back in those days, I spent at least a third of my time in the shop looking at methods for allowing us to become more efficient.

Probably the most innovative of all the things we came up with was a concept of taking the tools to the steel, rather than moving the steel to the tools. Now, a shop is made up of four hundred foot long by maybe seventy foot wide bays. Up at the front end of that shop you have your punches, your cutoff saws, and down the way you have your welding machines and other items—your drills and the like. The cost of taking steel through that tortuous path causes you to work with considerable inefficiency, particularly if there is a small amount of work that needs to be done on it. It interferes with the other work that is going through, plus you can't get it out of your shop.

So we actually set up an outside fabricating bay; we put electrical lines underground. I built, with two of my mechanics, a portable punch. We also set up acetylene lines for cutting; it's oxygen and acetylene that you use for cutting steel with torches. I set up lines for doing that out of doors. At the end we were able to bring our steel in, sit it on beams of steel crosswise so that the ends were all lined up.

I could move this diesel-engine cart that handled a portable hydraulic punch. The diesel engine ran the pump to get the pressure up for the hydraulics, move it into the ends of the beam, and punch the holes that we wanted to while the steel sat there. If we needed a stiffener in that, the steel just stayed right there and we'd bring the stiffener plate in. We had the welding torches handy there, and we were able to set up for cutting them to length out there with our burning torches and the like.

As a consequence, we suddenly found that on that kind of work we could do it for less than 50 percent of the man-hours that it would cost if we took it through that shop and went through all the stages, moving it several times down through that four hundred foot long bay. It was just a tremendous time saver.

Another thing that we learned to do was to use a truck crane, which we mounted just outside the shop bay. We lifted these big beams up with this truck crane and took them down in a pit. The pit was deep enough so we could have access to this beam at several levels, and we were in the right position to do the welding of stiffeners in these beams. Then we could pull
it out of the pit, trim it the other way, put it down in, and do the stiffeners on the other side. We found that that accomplished about a 30 percent saving in man-hours, compared to trying to do this horizontally within the shop.

These are a couple of the several, and some of the most significant things we did. By the use of this concept we suddenly found that we were cutting our labor hours altogether by about 10 to 15 percent through the use of this outside fabricating area, just because we had cut down on the cost of materials handling. When you bring your steel in on trucks from the mill, you have to sit it down someplace out in the yard. Then if you pick it up and haul it up to the start of the shop, you have to sit it down there because you can’t put the whole thing down at the punch. Then you pick it, one beam at a time, and set it on the punch. Then you have to move it through the other end on the punch, and that takes time. Then you put it down in the shop, and it sits there for a while. Then you have to move it to a new station for the next operation, and the like.

The great thing about it was that we used our own people to do all of the engineering, the mechanical building of this diesel engine cart. We actually took a diesel engine automobile and stripped it down and put a counterweight on an arm, and on the other end was the punch, which was a heavy item. But with the counterweight we could balance that out so that the man could just pull it down to the end of the beam. When he finished he was able to just let it go up, because the counterweight was a little heavier than the punch itself.

Does this give you a feel for some of the breakthroughs that our great people made at that time?

Jacobson: Yes, that’s excellent.

Employee Involvement in Shop Improvements

Jacobson: I’m interested in exploring the effect it had on your employees. Were they then required to learn new skills, or to do more things than they were used to doing?

Dornsife: The interesting part of this was that suddenly they became involved personally, to the extent where they were so excited that we could be competitive on these projects where for years
we couldn't. Suddenly that involvement resulted in their coming up with more and more ideas for labor saving devices. Because in the early years they had been told what to do, and you stay in your own little corner. Under Hal Dornsife's style of management, Hal Dornsife doesn't have the last word, nor does anyone else. We are open and we share and we contribute.

Once they found out that I wanted their involvement, they'd work weekends and make sketches and that kind of thing for some new idea, and bring it in. The knew that they could get an audience with me. They'd first take it to the superintendent, and he'd screen out any that were gimcracks, that really weren't feasible--dreams that hadn't a reality.

The employees knew that I personally had that interest and would come out and spend time. Anytime I was called out by the superintendent, the individual who had the suggestion was always brought into the meeting. The three of us talked about it, and I had the chance to ask this employee about his ideas and his thoughts: suppose we adjusted this a little bit; suppose we did that a little bit; and so on. So he became a part of the solution, rather than part of the problem. [laughs]

Jacobson: No one ever raised the issue or was concerned about their labor time going down?

Dornsife: No. One reason for that was that we were growing at a rate wherein this didn't generate layoffs; this generated opportunities for more and more work. We had to add an afternoon shift because we couldn't get the work done on day shifts. We put lights outside so we could use that area at night for some of the work if that happened to be the heavy load. What it allowed us to do was to continue to grow at a fairly rapid rate without having to add major investments to the physical facilities. Because we suddenly had this doubling of space, if you will--the outside space as well as the covered space within the shop.

Plant Expansions and Growth Markets for High-rise Construction

Jacobson: What kind of plant expansions have you had?

Dornsife: None to the Hayward plant per se. But we have had many expansions on the type of work we did at Hayward. Fourteen
years ago we acquired Stockton Steel, up in Stockton, California. It is a major contributor to our high-rise work. Tom Juaro is our plant manager there, and he is a great leader.

Then three and a half years ago we had completed the construction of a new high-rise steel fabricating plant in San Bernardino. It became the third arm of our high-rise capability. That was one that was interesting from a risk management standpoint, because we were building a sizable plant and were building it on the come. Because at that time there were enough restraints in the L. A. area, no growth and that kind of thing, that we had a rather marginal justification for the investment.

But in the studies I had made during the three years prior to that--I used consultants in part on it, and studied the business environment in New York City, Chicago, and several other major cities--I was satisfied that more and more industry would move out to Southern California, both because it was a delightful place to live and a healthy environment for business.

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Dornsife: I have to thank the good Lord for this vision; I can't take any personal credit for it. But the thing that's happened since we started that plant three and a half years ago is that now 75 percent of the market in the western part of the United States for high-rise steel frames is in the southern half of the state of California. By that I'm talking ten floors and taller. The high-rise market for Herrick is in the southern half of the state. Los Angeles has closed down a great deal because of the traffic block there, but we are currently doing a seventy-five floor Library Square Tower project there.

The outlying communities are expanding. The area down toward San Bernardino--let's say between Pasadena and San Bernardino and that corridor--is growing; Orange County is growing. But the one that is really exploding is the greater San Diego area. Once again, the Lord touched us just at the right time to cause us to step ahead on faith, that what we were evaluating was really going to come to pass.

The other thing that I couldn't have predicted was the strength of the no-growth advocates in San Francisco. That market, which had accounted for, oh, about 25 percent of our business in the past--we haven't had an inquiry for a high-
rise in San Francisco in the last nine months. It is that strict in its no-growth advocacy.

That's a rather long answer to your question about expanding, new plants, and the like.

BART Station Projects

Jacobson: Why don't we return to some of the projects and talk about some of the more exotic ones that you mentioned.

Dornsife: Let's hit some of the more exotic ones, if you'd like. Let's talk about the BART system in the Bay Area. We did a structural steel framework for five underground BART stations in Oakland and in San Francisco, in combination. These were particularly difficult and challenging projects, because it was underground work. You had to be creative--supercreative--to make sense out of it, because you had a hole to get down into them, and then you had a long run underneath there. We came up with the concept of dismantling a tractor and would lower it piece by piece down there, reassemble it, and let it be the vehicle which was heavy enough to take that rough going and all. It just happened to work beautifully, and we gained a great deal of efficiency and effectiveness that we hadn't originally contemplated.

We had a great underground party at the end of the station in San Francisco, where husbands and wives and kids were brought over. It was a time of celebration. We even got the BART people and the Bechtel engineers into it. It was a great celebration time, but truly a mean and tough challenge.

Queen Mary Reconversion

Dornsife: Another of our exotic projects was the alterations to the Queen Mary ship in Long Beach. The challenge there had to do with the fact that they wanted to convert it to a hotel and keep it stationed in Long Beach. But ships built at the time the Queen Mary was built had about a six-foot space between the floor and the obstruction up above--the steel girders and the like.
So the challenge there was to come in and remove these floors and get eight to nine feet of clearance between the floor and the ceiling, and to just actually rebuild the internal portions of the ship. Once again, our creativity and the tools that we used, and many of the concepts we used for moving major beams through that ship and the like, and how to get them into the ship, were the ingredients that allowed us to do this quite effectively and for a nice profit.

American Airlines 747 Superjet Hangar

Dornsife: Another was the 747 Superjet Hangar at the Los Angeles airport for American Airlines. It was a challenge, once again, in the rigging and the lifting. This was a building with a core structure in the center, and then the roof was cantilevered out the size of a football field. We had the challenge of working with the engineers in the design of the center core portion of it, the cantilever design for allowing that football field to be extended out from the core. Once again, our wonderful and creative people were able to accomplish that and to make a very reasonable profit.

The one that was built at the San Francisco airport was an unfortunate experience for one of our Bay Area competitors, who lost over a million dollars in the project because they were unable to come up with the concepts that were needed to do this kind of work efficiently. These were enormous and heavy lifts. But it was an exciting challenge.

Oakland Coliseum

Dornsife: I have mentioned previously the Oakland Coliseum, where the basketball games are played. Our need there, once again, was to disassemble a truck crane to lower it into the center, and then do all our erection work, and then take it apart again and lift it out, using a heavy-duty helicopter type plane to lift the individual pieces out--because there was no way to get it out otherwise. This was an exciting bit of creativity that allowed us to accomplish that.

We had the fun there--since I'm a basketball fan--of having season tickets for the Warriors for a number of years,
and listening to people alongside ask the question, "How in the world did they ever build this thing? How could they possibly have lifted these big beams up where they are? If they had equipment in here that was big enough to lift it, they couldn't have gotten it out." [laughs] A number of questions of that nature.

Interestingly, now, this is all coming to life again, because the Warriors are saying they aren't going to stay there at the Oakland Coliseum unless the seating capacity is enlarged by three or four thousand people. So they're going back into the basic root design, and we quite possibly will have another opportunity to be creative in helping them accomplish what they hope to do. It was among the exotic ones that we completed.

These are some of the significant examples of things we were able to accomplish and do some unique and creative things for business purposes.


Dornsife: That's right.

**Brainstorming for Creative Solutions to Steel Erection Problems**

Jacobson: Would you pioneer the concepts in the shop or in the field as you went along?

Dornsife: Actually, what we did was to hold a meeting in our offices, including a couple of our best field superintendents, our shop superintendent, a couple of our top foremen in the shop, our chief engineer, and our general manager. I participated in these, and we had group brainstorming sessions where the rules were: make any suggestion you want, but I don't want to catch anybody laughing at anybody else's suggestion. I want us to consider everything that's out on the table. If any of you do laugh at somebody's idea that's tossed out on the table, we will let you adjourn from this meeting.

This was the genesis and the embryo in which these creative ideas were born. Some of them sounded ridiculous when they were first tossed out on the table. I recall, when I made the suggestion of using a heavy-duty helicopter to lift that piece of equipment out of the Oakland Coliseum, I looked around
the room and guys were holding their faces to keep from laughing. But they didn't laugh. We agreed that it would be a tough act to handle, but let's go to the helicopter people and see what kinds of loads they can lift. Much to our amazement, they could do three or four times as much in a single lift as we realized.

So this was the environment in which these unique and creative ideas were born.

Jacobson: Would you approach things on a trial-and-error basis—the idea sounds crazy, but let's try it?

Dornsife: No, we would approach it on the basis of let’s identify the potentials for success, and let's identify the risks. We'd then parcel out the risks to the person we thought most appropriate to study it, and then we'd come back for a next session. Did we do any trial things out in our yard? Yes, we did a few, just to make certain that we understood the concepts that we were talking about. Yet they were never major pieces of a puzzle in the sense of just trial and error. It was a concept that we felt was potentially feasible, but needed to be tested out on a smaller scale before we started to give it serious consideration on a larger scale.

Earthquake-proof High-rise Construction

Jacobson: What about considerations for earthquake-proofing the high-rise buildings?

Dornsife: That was the most important factor in our decision to cut out the rest of our businesses and focus exclusively on high-rise. The West Coast is earthquake country, and as such more and more of the frames for high-rise buildings would be steel and not reinforced concrete. It was such a fundamental and basic part of our business logic. We were ideally located on the West Coast, and that was earthquake country. Our only significant other materials competitor was reinforced concrete.

We were able to work with the architects and engineers. We picked two structural engineering offices in Los Angeles and two in the San Francisco Bay Area, and had our engineer become well acquainted with their top people. This had many benefits in terms of sales, conceptual design, and in cancelling out reinforced concrete as a consideration. Because in these
studies we were able to show several things. One of them that was extremely important was the reliability of the structure: how do you look inside the reinforced concrete column and know that there are no voids in there, no openings, no gaps, nothing in it that's wrong. You can't. There is no means for taking care of it.

The next challenge was what you can do in your welded joints in steel to make certain there are no pores or other defects in them. The natural answer was that you can just x-ray them. But you can't x-ray something that has multiple shapes, because there's no place to put your plate in immediately behind what you're x-raying.

But we found that ultra-sound could be used. So we developed a specialist in our shop in ultra-sound, and we sold the engineering fraternity on the use of ultra-sound to make certain that we had perfect quality welds in the joints. Also, you see, we had to do that in the field, because we had welded joints in the field. We had two ultra-sound specialists, one that we used in the shop and another in the field. If the two were needed out in the field because of the nature of the work, both would go out there; or if the load was heavier in the shop we'd do that.

We also worked with three different inspection firms that were being used by contractors to do the independent checking. We were able to enter into subcontracts with them to do the inspection in the field for our men, just to make certain that as we went along the welds were all okay. We made that judgment call a lot of years ago. Twenty years ago was when we said, "Hey, that's going to be it," and "Here's the way we're going to go." And as the good Lord would have it, it continued to multiply.

Jacobson: How flexible is structural steel in a big earthquake?

Dornsife: Thank you for asking. That's another feature that is extremely important. That is a characteristic of steel, but not of reinforced concrete. The lay person thinks that the way you build something to be earthquake proof is just to make it extremely stout, and that's incorrect. What you do is to build a structure that can move and sway.

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Dornsife: The top of a forty-story building can easily sway three feet in an earthquake. When we built the sixty-two floor United
California Bank building in Los Angeles we were aware that it would probably swing as much as five feet.

Jacobson: So the taller the building, the bigger the swing?

Dornsife: That's it. And yet, by understanding, as the structural engineers did, that you had to provide for this movement, it allowed them in all parts of the structure to provide for this. The natural question that someone would ask was, "Won't that pop the windows out of a high-rise?" And it didn't, initially. It has done so at times, but those have been engineering defects or defects by the manufacturer of the window casings or the windows themselves.

Jacobson: What kind of a defect would cause a window to pop out?

Dornsife: Primarily rigidity—if your casing or the glass or the material they use can't take some flex. They've gone to a special glass to give special flexibility, and some to plastic, although plastic is pretty frowned on because it doesn't maintain its clarity over a period of time. These concepts have developed to the point where on this seventy-five floor building in Los Angeles no one's concerned about it, insofar as the amount of sway or losing its windows or anything of that nature.

Jacobson: Is consideration ever given to the proximity of one building next to another, given the sway?

Dornsife: Actually, no. They aren't close enough together to accomplish that. The greatest consideration of all that keys into this has to do with elevators in the building, and the fact that they will actually be thrown off their tracks. So if someone is riding an elevator at the time of a major quake, it's quite possible that they will go off their track. But they have safety cables there that prevent the thing from falling. It's the reason you see signs on high-rise buildings, "Use stairways in case of quake." But that's the only thing that's really a concern at this time for new construction.

The other side of that coin is what about a building that was built thirty years ago? You better watch out there. If you know there have been some earthquake rumbles, don't go into a building like that, because the engineers didn't begin to understand at the time that building was built what some of the safeguards should have been. But in the inspection of the building and the assessment of it, they cannot state that it's likely to crumble or disintegrate or anything else. If it's a reinforced concrete building, with reinforced bars and concrete
around them, they have no way of knowing because there's no way you can look inside. A steel frame building, you can always go in and check that joint and find out if there has been any crystallization in the joint or anything of that nature which would weaken it.

Jacobson: Are routine checks done on buildings?

Dornsife: No, not routine as such. But the city building department will set a series of buildings to be checked, and they will go about that. We depend almost entirely on our public organizations to be disciplined and carry out the due diligence that's so important for that. It's through this work that you will hear from time to time of a building being condemned and taken out of service.

Jacobson: Is there something to the spacing of structural steel members that has to do with providing more flexibility?

Dornsife: Actually, there are many factors that contribute to the design that allows this structural frame to take the loads throughout the frame rather than to allow it to take it in one location. It's the so-called composite design concept that you can do with steel, and you know what you've got, that allows it to turn, since it is working concentrically and at the same time the whole frame is taking the load, rather than just one floor.

This is where you have difficulty in a reinforced concrete building which cannot transmit local stresses to other members. However, in a steel frame you have this flexibility. It's the fact that the whole frame, from floor to ceiling, is a part of it, the foundation being the Rock of Gibraltar. Then the composite design that allows each of the pieces to be a part of handling this, allows you to do in steel something that gives you great confidence about its stability.

Jacobson: What precisely are some of the standard features of the composite design?

Dornsife: Well, there are many of them, but the place where you have the greatest need to analyze and perfect what is required is at all points of joinery. The structural engineer designs a joint which allows it to work as a composite joint, rather than to have one side of a beam taking a lot more of the load than the other side. Yes, it also is in the beam itself, so you don't go to super-heavy beams well up in a high-rise. Some of them are pretty heavy down below, and they don't move a great deal.
But the farther up you get, the more flexibility you build into it.

That primarily grows out of the joinery that you have—the joints where you have a column that goes up, and then you have beams that come into it on both sides. Also in terms of how tall a column will be, they usually run a couple of floors. Then you have the column connection that you make, and the stiffeners that you put in there to give you extra strength so you don't collapse a wide-flange beam. As you know, a wide-flange beam is an "I" shape, the web is a centerpiece, and the top and bottom are flanges.

But those could collapse under certain circumstances, so what you do is to weld in there what is called a stiffener that attaches to the inside top of the beam, the web, and also the bottom inside surface of the beam. Through these stiffeners you get them to function cooperatively, if you will, in consort, and transmit those loads down the way, rather than tear apart because the load is too great at that intermediate point.

**Fire Resistance of Structural Steel**

**Jacobson:** What about fire and structural steel? Has it proved to be fire resistant?

**Dornsife:** That's a good question. Actually, structural steel is susceptible to fire damage, and as a consequence what they do is—to try to use a simple term—they blast insulation on the outside of it. They attach wire netting to the steel to hold this insulating material. They use what is called a Gunite machine, in most cases, to shoot concrete up against a wall. In this particular case they use the Gunite machine, but it shoots the insulating material up against the steel. They put it on all sides of the exposed structural steel as a means of fireproofing it. This is the reason why, in the work that you do on structural steel in the shop, you don't blast it to remove the mill scale, as you do if you were going to paint it, because you need a rough surface for that insulating material to attach.
Jacobson: What about the fire in the First Interstate building in Los Angeles last fall?\(^1\) What happened with the structural steel there?

Dornsife: It held up remarkably well, and that's our building—the sixty-two floor. It was the United California Bank at the time we built it. It came out remarkably well, and it did so because they did a good job of putting what's often referred to as insulcrete—the insulation—on it; they applied it properly. That is a separate technique and art form which we do not do.

But there was another instance on the M-G-M Grand Hotel in Las Vegas, where they had failed to do this properly. That resulted in major damage to the steel, the collapse of portions of the hotel, and deaths as a consequence. The reason why it wasn't insulated in Las Vegas was that Nevada has a different set of building code rules than California has. They foolishly didn't follow, particularly in a hotel, the more conservative practices. But this is economics in construction, and you do what is required, and you don't just add beyond that.

So, once again, you're so dependent on the public servant who is involved in the building codes for the area to protect you from what otherwise could be a disaster.

Jacobson: Has Nevada changed its building codes since then?

Dornsife: I've heard a number of comments about it, but I instructed our people not to have anything to do with the repair of that structural steel. Because you are gambling to lose if you get over there and get in the middle of it, and you're going to lose in a lot of different ways. Somebody's going to claim that you should have done your steel differently. If you tell the truth as to what happened, you're going to alienate contractors and subcontractors, and they're going to try to get you in the long run. So anything you do over there would be gambling to lose. As much as your heart is in the right place, you can't let it get exposed.

We were able to stay out of it completely, and didn't get sued because we had done our job properly. But we were so susceptible to becoming involved. It's so easy for one of your men in the field to make what he considers to be some simple comment that is an indictment for your company. So we stayed out of it.

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\(^1\)May 4, 1988.
Jacobson: Are there difficulties encountered the higher you build?

Dornsife: Yes, and these difficulties range over a wide spectrum. The benefit that we have today, compared to even ten years ago, is that each earthquake can now be recorded for its forces on computers. As such, you are able to take those loads and forces and stresses and, with one computer, play them against the design that you put into the other computer. You're going to find out if it will stand up under that.

Now, we had an interesting experience in the UCB building—I call it that, even though that's the wrong name, just because I was born and bred in that brier patch [laughs]. We had subcontracted some of the heavy steel to our Japanese friends in Japan for fabrication--had a man over there and the like to follow it. It was at that same time that there was that terrible earthquake in the San Fernando Valley in Southern California. The hospital had the one floor collapse and drop down and kill many people. And there were two overpasses under construction where the reinforced concrete on the floor of this overpass just dropped down, and people were killed in that.

What they picked up on the computer at that time said that the forces are considerably different than we realized. Because it was a much heavier quake, much higher on the Richter scale—it was six and a half or seven—it was a real dinger. We had to stop all the fabrication in Japan and let them redesign that structure completely, and then build to the new requirements. We were particularly fortunate that the experience occurred when it did, because we could have had that building collapse in another quake down there had we not intercepted the new combination of stress loads that were imposed by this stronger earthquake.

Jacobson: Do you test for the largest possible earthquake, or do you test for what you think is likely to happen in that area?

Dornsife: You test the structure against the worst. The difference is that the forces are considerably less in a twenty-story building than they are in a sixty-story building, but you use the toughest and you base your design on the fail-safe, because you don't gamble that in this particular geographical location it isn't going to hit that because it hasn't ever hit it before. You gamble safe.
Jacobson: In the Library Square Tower building, which is seventy-five stories, what kind of adjustments did you need to make in that design to accommodate the different forces?

Dornsife: As contracts are normally carried out, the owner of the building places a contract with a general contractor. That general contractor and the owner employ an architect—usually the owner employs the architect, but with the guidance of the general contractor. The architect doesn’t have that kind of expertise in his own organization, so he subcontracts the design of the structure to a structural engineer who has all of this computer capability, both in playing the old quakes against the structure and in having a computer capability to allow him to do the design work that enables this to meet the standards required.

We don’t get into that part of the thing, particularly in a structure such as this. Now, in a thirty-story building we have concepts and types of connections that are much more efficient. And we have the two engineering firms in the L. A. area and the two up here who can do an excellent job of redesign, so we will actually bid on a project by taking the drawings we first get and giving them to our engineers and asking them to modify it. So it is just as strong, but it has our efficient connections in it.

We will bid to the general contractor based on our design, but not reveal what our design is, just saying that it is equivalent. In that way we don’t give away our know-how. It has helped us considerably in terms of being able to do things economically.

Jacobson: You’ve been involved in a couple of the nuclear power plants—how about the construction of those?

Dornsife: They are not particularly challenging. They’re exotic by name, but are not really that special in terms of their demand. An interesting coincidence here on the Rancho Seco Nuclear Power Plant, which we did in 1972, as part of the Sacramento Municipal Utility District, is that it’s located in my home town of Harold, California [laughs], which is a bit of a lie, but it’s a fun one.

Just like another fun one that I’ll pass along to you: I have to live under a slight prejudice of being from a small town in northern Indiana before coming out to USC on my basketball scholarship. But would you believe that mid this month, out of my home town, which is Mishawaka, Indiana, the
Mishawaka Pennysaver newspaper issued this information, giving accolades to USC for its many athletic championships over the years [laughs]. That is a great "small world" department.

**Expanding the High-rise Business Outside of California**

Jacobson: I have one more question on projects: how did you go about getting business in Oregon and Washington and all these other states? You really expanded into the entire West.

Dornsife: That's right. In Alaska, too, we have three or four high-rise structures. The growth and expansion of these areas is a byproduct of the fact that probably a dozen general contractors do 90 percent of the big high-rise work in the western part of the United States. They negotiate their contract with the owner; seldom do they competitive bid for the work. As we grew and developed a reputation for prompt schedules, quality work, and the like, we learned about projects in these other areas, and in some cases asked our contractors—the general contractor we'd been working with—if they had tried doing business up there. "Well, no, we haven't, but we know Joe Schmaltz up there, and we'll give Joe a call and let him know that you'd like to bid that."

So it was building on a reputation that allowed us to continue to expand and grow. In some cases the contractors we'd been working with went up to Oregon or Washington and we got involved there. But the other piece of that puzzle is that you've got to go up there and spend time with the architect, the engineer, and the general contractor to give them a level of confidence that is needed before they would give a California outfit a chance to bid on a big, major project. This has been a basic part of our fundamental approach to business and to selling the name and the reputation in other areas.

We've done some major projects in Colorado as a result of this approach, but in general we can't be competitive going eastward. Shop labor rates are in some cases half what ours are here on the West Coast. So in the last five or six years we haven't attempted to get work there. But the Johns-Manville World Headquarters office building in Colorado was done by us, and it's one of our special projects.
Developing Relationships with General Contractors

Jacobson: Has a lot of your time over the years gone towards developing personal relationships with building owners who might be interested in building more?

Dornsife: Very little time with building owners; an awful lot of time with the general contractors who do this kind of work. We're quite different from the usual business organization. Most business organizations approach this from the standpoint of, "Hey, let's catch the president of that construction company; we'll take him out on a night in San Francisco, buy him a big dinner and all that good stuff."

It is our belief that that isn't the way to build a meaningful relationship. So what we do is reserve a fishing area up in Canada, usually for ten days. We try to get three or four presidents and their number two man to go up with us at our expense. We fly them up, we have the guides for fishing--

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Dornsife: We'd go up the first day and just make certain that things were all ready for them. They arrived the next day, and they stayed three or four days. Then we had a day in between to catch our breath, and the next group came there. This is the way we get acquainted with these people. The rule is no business; so we get to know them as people, and they get to know us as people.

Now, am I saying that no business is discussed? We don't turn the head of the general contracting company off if he wants to talk business: "Hey, Hal, how come you didn't get more competitive on such-and-such a job?" Or whatever it may be. My son, Dave, and our vice-president of sales, Chuck De Kay, were the ones who really initiated this. They were the founders of it--Chuck De Kay before son Dave started with us eleven years ago. So that's something we've been doing for about fifteen years.

Jacobson: Excellent plan, I would think.

Dornsife: Well, it ends up with their being so pleased to be off truly on a vacation and not a business trip. And there's a lot of joviality and kidding and all, but the key thing is that we get to know these individuals as human beings. We don't end up, as you do at a dinner, where they're on their guard: "What's this
guy going to try to pick my brains on? I'd better be careful about what I say here and there and yonder."

In the escape area on these fishing trips, a number of morsels drop out that we don't anticipate and that we don't ask for. For us it exhibits the kind of people we are, and it projects an image of something special out there. Others hear about it and will ask, "Is there any chance that our firm might be represented on one of those trips we understand you take your customers on?"

Jacobson: It sounds like a very good way to build trust.

Dornsife: That's it. That's it. It's interesting how much you learn about these people as individuals, about the trials and tribulations in their lives. After a day and a half up there they relax and are down to the point where if they've got a big problem, they want to share it with somebody. It's amazing what comes out of the woodwork at times, of a personal nature, and how much we're able to do afterwards of a personal nature to help out. So it's an exciting adventure.

To phrase it in another way, we've never been, never will be, a fast-pitched company--one that, "Hey there, hey there, hey there, come on down. We've got the best thing going," and that kind of thing. Or elaborate entertaining or anything of that nature. That doesn't mean that we don't get invited occasionally by these people to have dinner with wives, just because they're appreciative of what happened on the fishing trip, and they'd just like to say thank you--which, of course, is marvelous, because that has the advantage of wives being present and a chance for that chemistry to take effect.

There are a number of dimensions of that nature that we see as very important from a basic human relations strategy, and how we work with our customers. And we follow that same philosophy with our people, by having the family Christmas party each year. It's focused entirely on the kids, with a Mr. and a Mrs. Santa Claus and a plant tour, or we go out to an auditorium someplace, or whatever seems to fit the picture best.
Jacobson: Let's start with the structural steel industry, trying to get the context for where Herrick fits into the larger picture. Who were your competitors when you started in the industry and who has survived and who is no longer in the business?

Dornsife: At the time I joined the company, which was thirty-three years ago, Herrick was doing about $4 million worth of business a year. During Herrick's first thirty-five years, before I joined them, they had accumulated $1 million net worth. There were probably fifty to sixty competitors in the western part of the United States at that time who were doing, in varying degrees, the same kind of work that Herrick was doing in the fabrication and erection of steel.

The three major and dominant factors on the West Coast were Kaiser Fabricators of Kaiser Steel, Bethlehem Fabricators out of Bethlehem Steel, and American Bridge, which was a subsidiary of United States Steel. They were so dominant in the market that every small fabricator, Herrick included, was fearful of them. That fear of them was a significant factor insofar as their considering a pattern for significant growth.

We accepted the fact that they were tough competitors, but we found, through diversification of our product lines and by training and developing our people to be more efficient in their operation, that we could compete somewhat with them, but also we could grow. Significant in this growth was the fact that Mr. Herrick agreed, at the time I came with him in April, thirty-three years ago, that we would seek a new location, build a new plant, and that that would be the foundation on which our growth would take place.
Within fifteen months we had purchased the land, built the plant, and had moved in. It allowed us, just in that new plant— that I designed and laid out—to cut our shop labor by about 20 percent compared to what the company had been doing in Oakland. It also set the foundation for our looking at heavier work and more diversified kinds of work than we could possibly have considered in the Oakland shops.

During that first four years, I devoted a great deal of time to the training and development of people at all levels, including the spending of time down on the shop floor with the men on the floor, having meetings with them about every six months wherein I was able to make them feel that they were truly a part of the company. I continued that development by starting family Christmas parties, so that once each year we all got together away from work. We all agreed that at that time there were no titles; that we were together as people, to celebrate the Lord's birth, and that we were there together to enjoy the children. We had special games for the children and all, and a mother and a father Santa Claus, contests for the children, little gifts for each of them.

We developed an attitude of "can't lose." But it was developed throughout the organization, not just in top management. It is that dimension which I feel is the very foundation on which we were able to continue to build, and ultimately to take the three mill fabricators out of high-rise steel fabrication—and completely out of the fabrication business in the western part of the United States. That happened about nine years ago, and they're no longer competitors on Herrick's high-rise steel frames, because they just couldn't begin to compete with us. We had to be creative there, because they were our sources of supply of steel.

So I went foreign, to England and Japan initially, and by insulating ourselves, but still working cooperatively with the domestic mills, we were able to accomplish something that everyone said couldn't be done. It wasn't that we were more brilliant than others; it was just that we worked much closer together in sharing ideas and taking everybody's idea into consideration.
Successes and Failures of Other Independents

Jacobson: What about the other independents who were your competitors?

Dornsife: Of the other independents--and there were a number that I mentioned at the time I started at Herrick--none of the major independents have survived on the West Coast. There are, I'd say, three or four remaining who do some bidding against Herrick on small high-rise steel frames. But they are very small insofar as being competitors. Five years ago foreign fabricated steel started coming into the United States, and that destroyed the other independents insofar as their being a substantial factor.

The three or four remaining now do work in the less than ten floor level buildings. Herrick decided ten floors and taller was the market that we would go for, and that we wouldn't bid any jobs that were less than ten floors, which again allowed us to develop an efficiency, insofar as our administrative costs were concerned, that none of the rest of our domestic competitors offered.

Jacobson: Do you have a sense of whether the others were importing foreign steel as well?

Dornsife: Yes, I did. However, they were very small in terms of the amount of foreign steel that they imported, and they were unable to develop the relationships that I personally developed with the general managers of these foreign steel companies. It was these close relationships that I developed--both business and personal, because they allowed for that kind of relationship—which enabled me to succeed on several occasions, and particularly—as it was called then—on the United California Bank project (the sixty-two floor building in Los Angeles).

We were given such bad publicity by the steel mills at that time that the bank was afraid to do business with us. I called the general manager of Nippon Steel Corporation and asked if he would fly over and meet with me and the bank officials to assure them that he could and would supply us with the steel. And also to give them a reaffirmation of Herrick's financial capability. It was a magnificent turnaround, which ended up with the officials in my offices in Hayward, wherein the executive vice-president of the bank came. There were two other vice-presidents of the bank in that meeting, and we
showed them our facility. But we had the support of the steel source.

The end of the discussion was a call from the executive vice-president the next day, when he got back to his offices in Los Angeles, wherein he said, "Hal, I can't believe the lies I've been told about you folks by the mills. I am so angry with what has happened on this whole thing. It's your job, I want you to know that. I couldn't tell you in that meeting, because I didn't want the others to hear my candid comments, and these are confidential." He said, "There's no question but that you are the most qualified, and you're the one that we want to do the job for us." And we completed that project three months ahead of schedule, which then leveraged the bank and the executive vice-president as an excellent reference for other projects.

So we built on our development of our own people, but we also built on our development with executives in customer organizations and in owner organizations.

Jacobson: Who were some of the other independents who have since dropped out?

Dornsife: In the Bay Area some of the largest were Independent Iron Works, Pacific Coast Engineering. I'm trying to think of significant ones, but they've been gone so long [laughs]-- Stockton Steel was one, before we acquired them, and Western States Steel was another; Schroeder Iron Works was another. Those were some that were in the Bay Area. Then there were a number in Southern California that we had as competitors, such as Riverside Steel, Central Industrial Iron Works, Federal Steel, and the joint venture of Korean fabricated steel which American Bridge, U.S. Steel's high-rise subsidiary, would erect. The only one remaining among this group is Riverside Steel.

Failings of the Three Major Steel Companies

Jacobson: Can you assess what it was that the big three mills did wrong?

Dornsife: The primary thing they did wrong was that they developed a monopoly situation wherein they worked together, and any upstart like Herrick they would take turns in making certain we didn't get jobs. So on a project such as the M-G-M Grand in
Las Vegas I had to go to the chairman of the board of the M-G-M Grand to counter what their chosen member was telling him. The building owners' board of directors sometimes were actually on the steel company's board also.

Monopoly breeds ineffectiveness and inefficiency. We were able to do our work in the shop for 30 or 40 percent fewer hours than they were able to do the same kind of work; and in our fieldwork we were able to do it for 20 percent less than they were able to do it. Ultimately, because of the support of the foreign mills--as well as our improved performance--their losses were gargantuan.

Jacobson: I get a sense that the three mills were engaging in some rather self-defeating behavior, particularly with how they sold steel to their independent competitors, where the foreign steel operators were able to offer much better deals.

Dornsife: Actually, what the foreign people offered was not a much better deal pricewise; oftentimes it was the same, sometimes maybe 5 percent less. But the key to it is that at the time we bid the job we had a guarantee from them of what that price would be at time of delivery. We couldn't get that from any one of the three domestic mills. So it was a practice that was collusive in the sense that all three of the domestic mills gave you the same response.

I have no knowledge of their colluding, and I don't accuse them of colluding. I just know that it was more than coincidence that on every one of our big high-rise projects in the first five or six years that we had gotten into the big high-rise, that one of the three mill fabricators was the one that we had to compete with--and it wasn't the same one. Only by inference do I conclude that they took turns; I have no evidence of any internal discussion.

I do know that as we grew and as we progressed we gained the respect of the presidents of all three of the big mills. In fact, that even developed to the point where I was advised in two of the three cases by the presidents when they decided to go out of the high-rise business in the western part of the United States.

Jacobson: Their principal reasons for going out of the business--?

Dornsife: They couldn't make a profit competing with Herrick.
Jacobson: Do you think that their practice of controlling the terms of delivery on the steel did them in?

Dornsife: That was a part of it, but you have to look at it in the perspective that for fifteen or twenty years before we entered the fray on high-rise, they had gotten by with that and it had worked to their benefit. Also, they had not had to face Herrick's creative approach to getting another source of steel. Since they were the source of steel, and they had that degree of control, they had a firm grip on the market. The three mills took 90 to 95 percent of the high-rise work in the western part of the United States; among the three mills they were consistently taking that before we entered. And now we're doing, on ten floors and taller, 70 to 75 percent of the high-rise in the western part of the United States--Alaska to San Diego.

Jacobson: Had they not tried to control the terms of delivery, would it have made a difference in the status of the independents relative to the big three? Would you have bought your steel from them?

Dornsife: If we had gotten the same price and the same terms, surely. We now buy probably 50 or 60 percent of our steel from the major mills. We went to U.S. Steel because my acquaintanceships there were better than with the others, and they were a more dominant factor in high-rise on the West Coast. Before we actually got into the business ourselves, on the scale that we finally did, we went to them and asked them if they would consider using us as a subcontractor for those portions of the shop fabrication which we knew we could do much more efficiently than they could do it. They said no, antitrust laws prevented them from considering that.

That was their interpretation of antitrust laws, or their way of saying, "Hey, buddy, you ain't going to edge into this thing on our coattails." Whatever it was, that was the decision. Then we had no alternative but to go the route that we went.

Market Forecasts

Dornsife: Another piece of this puzzle had to do with our market forecasts of the kinds of steel fabrication work that would continue to exist and grow in the western part of the United
States. We spent a number of days in meetings wherein I would take our top executives down to our place in Carmel on a Friday, and we'd work all Friday afternoon. We'd have dinner out in the evening, they'd stay overnight in our place down there, and we'd go at it until mid-afternoon on Saturday in terms of our market planning, people planning, and the like, such that we really had an in-depth digging into the issues without interruption—the phones and all—that we would have had at the home office.

It was through this process that we arrived at the conclusion that, since the West Coast was earthquake country—earthquake country meant steel frames—there would always be high-rise steel frames, and that the West Coast was going to grow. All of the forecasts that we could get from our resources said that the West Coast, as a business center, would continue to grow. So it was in the context of a great deal of thought, over three or four years, that we gradually pared out the other diversification we had and focused on this as our prime target. And it's worked out that way.

**Joint Ventures with Other Independents**

**Jacobson:** Were there opportunities for joint venture with the other independents?

**Dornsife:** There were, but on rare occasions. The reason for that is primarily that they hadn't developed their efficiencies in the shop on this kind of work to the extent that we had. Now, there were erection companies on the West Coast, too. We would on rare occasions early on consider them, and on maybe a half dozen occasions over three or four years we would use them to do the erection on a high-rise job.

But as we built our following of field ironworkers in the Los Angeles area, the San Francisco area, and the Seattle area, we were able to get the cream of the crop out of the labor market in each of these areas. We built a following which allowed us then to do field work with our methods much more efficiently than the subcontractors, so they were no longer a factor.
Field Crews

Jacobson: I was wondering how you went about getting field crews, especially when you expanded into other states. How did you get them to work for you and manage to keep your rates low?

Dornsife: What we would do would be to build and develop foremen in a particular area. For example, let’s just take Portland and Seattle. We would have one or two foremen who lived in those areas, and they were permanent employees. We would even bring them to San Francisco at times to work on jobs, just so they could have permanent employment. But they had their following in Portland, and those from Seattle had their following.

So we built a team of field foremen, and then we would send other field foremen from San Francisco to round out the team. Once again, the building of people on a cooperative basis was such an integral part of the shape of things to come.

Jacobson: Did you have any special incentive plan for the foremen?

Dornsife: Permanent employment. Field workers live in a never-never land, from the standpoint of interrupted employment. They get paid high rates, rates well above what shop workers get. But if you work just six months of the year, and you get half again as much when you work as a field ironworker as compared to a shop ironworker, that still doesn’t take care of you for the twelve months in terms of what your needs are. So giving these foremen permanent employment was a great asset to them.

Foreign Steel Imports: Advantages and Disadvantages

Jacobson: Did you ever experience pressure from your competitors not to use foreign steel?

Dornsife: We had some pressure from them, but primarily the pressure was initiated by the three domestic mills, who would go to owners of new buildings being constructed and try to tarnish the foreign steel image. That was the prime problem that we faced—that the mills, because of cross directorates, would try to place the poison pill in terms of quality, unreliability, and the like.
It was the refuting of that that I was able to do when I brought the general manager of Nippon Steel over and let him talk to the executive vice president of the United California Bank and two of his other vice-presidents, one the vice-president of construction, and to give them this assurance directly.

Jacobson: What are the true differences in quality of steel?

Dornsife: The primary differences that you are looking at are the tolerances in dimensions. If those tolerances are very close and you know that their steel, each time, will be coming in within the tolerances that you need, that is the primary factor that we dealt with. Now, there were some secondary factors, but they had to do with poor quality of the steel itself, which would happen occasionally. That was more from the British than it was from domestic mills. It is called steel that was porous; it would have some voids in it and the like.

But the Japanese steel was such good quality internally, and fell within such close tolerances, that our shop people would say over and over again, "Hey, bring me Japanese steel and I'll do it for 10 or 15 percent less on my labor budgeting." They were overstating it a little bit, but it did have an influence on it, and it was significant because of the matching connections and the like that you needed as you connected one piece of steel to the other. If it was exact tolerance, you could work more quickly and easily, and you knew in advance.

Another thing the Japanese did, which was a tremendous asset to us, was that they would make a shipment of steel on a tanker, and maybe it was five thousand tons. But in the rolling they may have had maybe forty pieces of steel that didn't come out right, didn't meet their inspection, and they couldn't ship with it. They would telex us the pieces of steel that were missing at the time that ship left, so that we could go out and get it elsewhere. By the time that shipload came in we had accessed these forty or fifty pieces of steel domestically, so that there was no delay for missing pieces of steel.

With the U.S. mills we learned about the missing pieces when the steel landed and we started to count it out. So once again, the relationship we were able to build with the Japanese, and their responsiveness to our needs, was also a factor in a mutual business arrangement wherein both sides could win.
There were times when we had major shipments of steel, where we would actually send someone over to coordinate and to make certain the mill was following what we wanted done. In the case of the M-G-M Grand project in Las Vegas we sent an individual who was a former manager under whom I worked at C. F. Braun & Co. He had retired, and he and his wife went to England and followed every stage of the rolling of that steel, because it was going to come over on a ship that was taking twelve thousand tons, and it had to be right if we were going to meet the deliveries that I had promised, which were very aggressive delivery promises on that job, in a commitment I made to the chairman of the board of M-G-M. I needed to have that kind of follow-up.

Once again, the extra effort up front in planning and implementing had an awful lot to do with how we were able to perform as well as we did.

Japanese Trading Partners

Jacobson: Did you always work with Nippon Steel, or did you have several companies you worked with in Japan?

Dornsife: Good question. The purchase of any heavy industry items from Japan is carried out through trading companies. Nissho-Iwai was the trading company we started working with and we still are working with. They had as their primary source of heavy structural steel Nippon Steel, which was an excellent mill over there. But they also worked with other steel companies in Japan for the lighter sections of steel, or certain amounts of plate work and the like. Kobi Steel and two or three others were resources that they worked with.

We accepted and learned the Japanese culture, and we didn't try to change it. [laughs] That was another very important part of our relationship with them, and they respected this greatly. They, in turn, wanted to do for us what we were doing in respecting their cultures.

Jacobson: What kinds of cultural things did you note and were sure to observe?

Dornsife: Some sound childlike, and are. We've always said there's a little bit of a kid in each one of us. Fortunately, Takeo Mizoguchi, who initially was the trading company representative
for Nissho-Iwai in San Francisco, was one of the rare Japanese acquaintances and friends that I developed over the years who truly understood the U.S. culture and the Japanese culture. He was able to coach me up front, and he and I went together on my first trip to Japan, which was twenty-one years ago.

One of the culture pieces with respect to them is the gift giving. When you come you bring gifts for them, and they're little gifts; they aren't necessarily big ones. You have to have a gift to give all of their key people. I went over the first time not knowing how many, and I had my bags packed with about fifteen gifts, of which I used twelve there. Because each meeting you have with them is a meeting with four or five Japanese, the trading company representative, and little old Hal.

Another piece of their life is that if you were to bring an interpreter, they would think you distrusted them. It was not unusual in these meetings to have them speak in Japanese for maybe fifteen or twenty minutes and just ignore me, as I sat and went through papers. But I was forewarned of this. I was forewarned that it would take two to three times as much time to do business there, and to take other things in my briefcase to work with.

There are many pieces of their culture which are unique to us. The husband-wife relationship—you can get yourself into all kinds of trouble by trying to get them to bring their wives along if you want to take them out to dinner. The list is endless, almost. Men go first into an elevator; women wait and go afterwards. (Now, this is twenty-one years ago, and changes have taken place.)

Their entertainment—how you conduct yourself in a geisha house, and how you conduct yourself in a cabaret.1

Jacobson: Did your wife come on business trips with you to Japan?

Dornsife: It was probably six months after my first trip that she did start coming with me. At least every other trip to Japan she would come. I was making trips, oh, about every three months during the first four or five years as we developed the relationship. This, in like manner, was an intriguing series of experiences. Because they would preplan what she would do during the business meetings, and she had decided what she

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1See pages 47-49 for complete story.
would like to see. They would bow and say, "Thank you, we will take you to where we want to take you." [laughs]

After three years we were honored by having them take us together to a Japanese men's club where women were never invited, but she was invited to come along for the evening and for dinner, which was as high a compliment as could possibly have been paid to my great Ester.

**Decreased Competitive Bidding on High-rises**

Jacobson: One thing you mentioned last session was that there wasn't as much competitive bidding in the high-rise end of the business. I wondered why that was so.

Dornsife: As we grew and set the guideline ten floors and taller, that just automatically reduced the number who were capable of taking on jobs of that magnitude, both from a financial standpoint and a capability standpoint. The three steel mills had virtually prevented anyone else from going after big high-rises over the years, so the developed ability among the other contractors was for the occasional what I refer to as low-rise, nine floors or less. It was just a case of no one else having developed that capability, plant-wise and financially, to take on the big projects, and to command the respect of the general contractors who do that kind of work.

In the business environment of the high-rise--ten floors and above--there are only about ten contractors in the western part of the United States who do that kind of work. And 90 to 95 percent of those contracts are negotiated with the owner; they don't go through the competitive bid process. So what we have had to do is to develop a relationship with those ten contractors where they have faith in us. This process also screened out a number of others who would want to bid but had no track record on the big jobs and were refused. Or were told, "Yes, you can bid," and they bid and their number was really not used particularly.

Jacobson: So it was a combination of the field being narrowed and the general contractors not extending as many invitations to bid.

Dornsife: That's right.
Jacobson: Was there a typical number who routinely would bid on one project? Or sometimes did no bidding take place at all?

Dornsife: It was a picture where initially you could expect five or six—the three mills and maybe Herrick and two others. As we developed our techniques and our reputation, we had the great and good fortune to be able to negotiate with the successful general contractor. About 20 percent of the work we took was negotiated; there were no other bidders. But this was down the line, when the mills were starting to limp insofar as their aggressive pursuit was concerned, and their sad stories no longer were believable. The general contractors stood to lose a lot of money if they didn't have a reliable source for the erected steel frame.

Labor Relations

Jacobson: Let's move to labor relations. How have those changed over the years?

Dornsife: For Herrick, they've changed very little. The reason they've changed very little is that Mr. Herrick's philosophy and my philosophy is that there is only one way to deal with unions, and that was to truly work with them, to get to know the top executives in the union, to listen carefully to their needs, to recognize at times that a business agent was under fire and either he got a fat deal for his union or it was the end of his time as the business agent; he'd be fired by the union. Mr. Herrick had [done this] before I came, and I picked up and implemented this, and my son, Dave, has continued to carry this out. As a result, we have had excellent labor relations.

I don't mean by this that we haven't had our confrontations, but the test with respect to this is that we've had only, over the thirty-three years, two or three strikes. With our Gillig Corporation, which now is about the same size as the structural steel company, we've just had one strike there in the last fifteen years that we've had them.

Jacobson: Did you work with the other independent companies in labor negotiations?

Dornsife: Yes. There was an association, and we did work with other companies through this association. But the diverse interests of the various companies did not lead to a strong association.
Also, the devastation wrought by competition, and the declining number of companies that were viable in the western part of the United States caused this to be less and less effective. Ten years ago the association, though it continued to exist, was not a significant factor in bringing about good labor relations.

Jacobson: Would you negotiate separate contracts?

Dornsife: It varied somewhat. Twenty years ago the association would negotiate the contract; ten years ago we started negotiating independently, and have in the last roughly ten years. As you should know, there is an ironworkers' shop union. That's one group, and then there's an ironworkers' field union, and that's another group. They have different leaders, though the international headquarters takes both under its wing, and you do have the two separate labor negotiations.

Jacobson: Would you say the temperaments of each organization are different?

Dornsife: Between the shop and the field? Yes, quite different. The shop worker is, if I can use some terms, a homebody who lives and works in a community, and that's his life. The field ironworker is a vagabond, and he goes from city to city. So you have two quite different personality types of individuals to work with--the shop versus the field. However, the common denominator is that both are human beings, and both, in terms of the group of individuals, do want to be reasonable and fair.

The dimensions that become extremely difficult in this process are those growing out of union politics, those growing out of favoritism, and the like, but you accept this and you continue to try to work with them as human beings. We've just been so very fortunate in maintaining a good relationship with the unions over the years, because we've really worked at it.

Jacobson: Were the shop workers more sensitive in the negotiations to technological change--things that reduced the amount of labor that was required to get a job done?

Dornsife: Interesting question, and an important one. Yes, they were, but we had the great and good fortune of growing throughout these years. As a consequence we needed more and more shop people, so we weren't ending up with layoffs growing out of technological developments.
In shop fabrication, and also in field erection, there have been, over the last thirty-three years, relatively few technological breakthroughs. So it hasn't been significant, as it would be, let’s say, in the automobile manufacturing business or in the bus building business, insofar as the ironwork, the high-rise work, is concerned.

Jacobson: Can you look back over that thirty-year period and see that the shop and the field workers focused on different issues as time went by?

Dornsife: Actually, the patterns within the shop were fairly consistent. You could fairly well anticipate, and in like manner the field.

Jacobson: What were the principal issues?

Dornsife: The principal issues were benefits and wages. Some in working conditions, but because we provided good working conditions, both in the shop and the field, they were never a factor as far as we were concerned. It boiled down to the basic issue of reasonable increases in wages at the end of each contract. These were usually three-year contracts, so that your confrontation was once every three years.

The big issue each time had to do with wages and benefits, wherein the union didn’t want to recognize that--

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Dornsife: --a benefit that cost twenty dollars a month was just as significant to us as a wage increase that cost twenty dollars a month per man.

Jacobson: Did job security ever come up?

Dornsife: It came up only in the context of termination of long service employees, who for whatever the reasons, we felt it necessary to terminate.

Jacobson: Was that an issue that was ever presented to the association?

Dornsife: Seniority dictated continuing employment, and the association had a very minor role in the early years, having to do with such a termination. But they gradually just stepped out of it completely, and you just worked directly with the business agent on any employee. You documented meetings with the individual over a period of time, and you gave the employee
letters confirming the discussions you'd had, and you documented the efforts to try to help them.

If they were unable to perform reasonably—or refused, in some cases, to perform reasonably—then you had the substance. That didn't mean it was simple and easy, but we did, I believe, a very good job of communicating, a very good job of training people, helping them improve and develop. As a consequence, we didn't have any major problems relating to that.

**Shop Labor Rates**

*Jacobson:* One thing that I think you've spoken of was the West Coast's higher shop labor rates. Can you comment on what sort of impact that had on your doing business and how you thought about it in terms of seeking business elsewhere?

*Dornsife:* It was a factor which was significant insofar as our trying to do business in, let's say, Colorado or Arizona or states east of the band in which we had our primary market. We did a modest amount of business in Arizona and in Colorado, but it was difficult to overcome that handicap. And there was a prejudice, of course, in favor of the local fabricator if that fabricator was capable of doing the work.

*Jacobson:* Why were the West Coast shop labor rates higher?

*Dornsife:* Because they were in a much more highly developed, industrialized series of communities, and in large population centers labor rates just automatically go up.
VI SUBSIDIARIES UNDER THE HERRICK PACIFIC CORPORATION UMBRELLA

Acquisitions Policy

Jacobson: What about some of the plant acquisitions that you did in Texas and Mississippi and other places? Was a lower shop labor rate a factor in your decision to choose a plant located elsewhere?

Dornsife: Yes, it was, in the context that we couldn't ship from the West Coast back into those areas. But it also had to do with our wanting to diversify in terms of the types of products that we were fabricating. We couldn't diversify out here and ship back into those markets; we had to go back into those locales and acquire a company that would fit into something where we felt we had a unique contribution to make in that particular market.

Our acquisitions were tested in a number of ways, the markets for their products, of course, being the first. But the most important of all was the test, "Do we have a unique contribution to make to that company which will allow us to run it more effectively than those who have owned and run it before?" If we couldn't pass that test, then the potential acquisition was turned down. We had to actually list them, and talk about people and what contribution they could make, and why did we have something unique to contribute--what did they have, what was the existing picture there, and what did we have to contribute that would make the unique opportunity for us to improve?
Gillig Corporation  

Jacobson: How did you decide to acquire Gillig, which is in a totally different market from structural steel?

Dornsife: I probably shouldn’t say it this way, but I need to answer you truthfully. Hal Dornsife had enough technical egghead in him that the high-rise wasn’t satisfying to him from the standpoint of an engineering challenge. And his past experiences, one of them being that we owned a construction equipment company in Waterloo, Iowa, also played a role. We bought it probably twenty years ago—Engineered Equipment, Inc.  

That was an exciting adventure for old Hal, and he learned that he made a terrible mistake in his enthusiasm. That is, that he bought a company right in the middle of John Deere’s major tractor manufacturing facility. As we built shop people—trained and developed them, and the like—they ultimately would be stolen by John Deere, because John Deere was highly automated, with the major volume that they were doing, and they paid 25 to 30 percent higher rates and could do so.

We decided that we’d made the mistake and we’d get out of it, which we did. We were able to sell it to some of our employees there, so that it was able to continue on a much smaller basis. We actually loaned them money, helped them to get into business, just because they were special people and we didn’t want to let them down. It’s still operating on a very modest basis.

With the selling of that—actually with the recognition that we were dead in the water in the Waterloo plant—we looked for something else. The owner of the Gillig plant was a long-time good friend of mine. His name was Stan Mark. As a matter of fact, I sold him the land at one side of the Herrick property that we had originally purchased for him to build a new plant. We sold him fourteen acres that we weren’t using, and he built the plant there. That was probably twenty or twenty-one years ago. I approached him—actually, about sixteen years ago I made the call—and said, "Stan, you old bum, you (I can call you that because we love each other and

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1See Appendix III, “The Gillig Corporation Centennial History News Release.”

2Engineered Equipment, Inc., was purchased in 1962.
care), why don’t you retire and sell me Gillig, and let me have the fun of running that thing?"

Stan said, "Well, Hal, you think you really want to get into something like this?" This was in the morning that I called him. I said, "Yes, I’m intrigued with what you’re doing. It’s a great technical challenge that I would like to have." He said, "I’ve been thinking about retiring. I don’t know how you knew when you made the call that I’d been giving it a lot of consideration. I really don’t have anyone here to take over. My son isn’t really capable of doing it." He said we ought to get together and talk about it. I asked if there was some time in the next week when we could get together for lunch, and he said, "What’s wrong with today?" [laughs]

Within thirty days of that luncheon meeting we had a handshake agreement on the transaction, which is absolutely an impossible accomplishment. But each of us knew that we needed to take it through our board members and the like, so we didn’t actually close effectively until August 1. But that’s how we entered that field. It’s been by far the most attractive acquisition that Herrick has made.

Jacobson: Was there any consideration of that being a growth market, or was it purely an outlet for your technical interest?

Dornsife: It had both ingredients. Independently, before making the call, I had studied the public transit bus market, and had studied the school bus market; the school bus market was their sole product line. I was satisfied that I could take Gillig into the public transit bus market, and that it had major potential for growth. I had checked to learn more about those who were manufacturing public transit buses in the United States. I had even checked foreign operations to learn more about the foreign market potential.

It was the potential for growth, as well as the satisfaction of a great technical challenge that motivated me to take this initiative.

Now, we acquired Gillig only sixteen years ago this summer—the first of August, 1973. A year ago, to support their expansion and to center some of its work more closely to its markets and sources of major components, we bought an abandoned plant in Hillsboro, Texas. It’s about thirty miles south of Dallas/Fort Worth. That is a new, integral part of our long-range expansion of the Gillig operation, which is currently doing over $100 million a year in business in the
building of public transit buses and in the building of RV chassis. Those are the two big product lines for that. The school bus market has gone awfully dead, but it's the third.

But the exciting adventure that Hillsboro prompted is a new product, a twenty-seven foot long shuttle bus with a special design wherein both Hertz engineers and Avis engineers helped us in the design by telling us what they would like. We will start building those in April of this year at the Hillsboro plant, and we already have firm orders for fifty of these shuttle buses. That will add a sizable expansion to Gillig over the next three or four years. It serves as an airport shuttle bus and is used in a variety of ways--by hotels, car rental firms, and many others.

Much to our pleasant surprise, Torrance, California, has purchased fifteen of them, because they see it as a shuttle bus that can pick up outlying commuters who otherwise just wouldn't have any way to get into the main transit district. These are so efficient and so effective fuel-wise--they're diesel-engine driven--that they will require about half the amount of fuel per mile that the big forty-foot heavy public transit buses require. They're much easier to drive, and have many other features that they liked. So they will use them for shuttling people into depots wherein the big transit buses will take them on and move from there.

Jacobson: Is Gillig, then, moving out of public transit and focusing on the public shuttles?

Dornsife: No. It will continue its growth there. We have been so fortunate in that business, to have developed repeat customers--Austin, Texas; Savannah, Georgia; Long Island; and so on. We've just gotten a new order for seventy buses, I think it is, for Austin, Texas. So the shuttle bus is an add-on. The public transit bus business has continued to grow on an orderly basis, to the point now where within three months we will be building fifteen of these public transit buses a week at our Gillig plant--thirty-five foot long and forty-foot long buses.

Peninsula Steel Products

Jacobson: Let's run through some of your other acquisitions, starting with Peninsula Steel Products, which you bought in 1981. Give
me a sense of what it was you felt you could contribute to make it a different or better organization.

Dornsife: Peninsula Steel Products was a company which was specializing in the fabrication of air pollution control equipment. They had a plant in San Antonio, Texas, and another one in San Jose. My background for sixteen years, as a chemical engineer with Standard of Cal and with C. F. Braun & Co., gave me an understanding of air pollution control processes, which PSP did not have within their management group. As a consequence, we felt that we could make a unique entry into a larger market than they were able to penetrate.

Their focus had been solely on air pollution control for coal-fired power generation plants. I knew a great deal about electrostatic precipitators, sulfur dioxide scrubbers, and the like, from my refinery experiences.

If I can just add to that, the thing we didn’t anticipate was the entrance of nuclear power generation plants and the emphasis that is being placed on the terrible losses that occurred there as a result of those plants costing four or five times as much as they were initially thought to cost, and the failure of our government to continue to exercise air pollution control legislation to cut out acid rain. As a consequence, not being able to anticipate those pieces of the puzzle, we haven’t been able to grow PSP to the extent that we thought we could. Yes, it’s a profitable company; it made a nice profit last year. But it’s a third of the size we had thought it would be by now.

Jacobson: Do you anticipate a turnaround with perhaps a change in government policy on acid rain?

Dornsife: That’s a good question. I am not too optimistic about the chances that the government will really bring acid rain legislation into being, because politically this will be devastating to the administration. You have, in the Ohio Valley and that area, large coal deposits that are high in sulfur, and if you were to do that, you’re going to lose all the votes from Indiana, Ohio, Illinois, Michigan, Kentucky, and all those states, because it will be devastating to them from a cost standpoint.

At the time we acquired PSP they were bringing on-stream new coal-fired power plants at the rate of about four or five a year. They have been as high as ten per year in their history. In the last five years there have been only ten that have come
on-stream, and in the next five years--until we have brownouts and extreme pressures--the utility companies will not be able to get the increased rates that they need in order to build new plants today.

Keep in mind that any new plant which is built must meet all regulations. As a reference point, eight years ago, when we acquired Peninsula Steel, you didn't have those restraints. But the restraints on new plants are onerous compared to what existed prior to that. And keep in mind also, from a time frame standpoint, that from the date when a new coal-fired power plant is released, it will take five years before that is actually operating and generating power. So we are looking at quite a number of years here of change in legislation for new plants.

We also have another major factor in slowing down the rate of new power-generating plants, and that is the financial burden growing out of the extreme failures in the nuclear power generators. These are burdens that these power companies have that need to be satisfied before they can go out and start to spend any money.

Plants Supporting Peninsula Steel Products

Jacobson: What about the next one, the San Antonio plant?

Dornsife: The San Antonio, Texas, plant is a part of Peninsula Steel, so what I've said applies to both its San Jose and San Antonio plants as we saw them initially.

Now, the Iuka, Mississippi, plant, went into operation four years ago. It started up four years ago as a new plant, and the San Jose fabricating plant was shut down at that time. The Iuka plant is unique in that it is located on the Tom Bigby Canal, which enters the Mississippi about a hundred miles above where our plant is located. So it gives us a unique capability wherein we are able to fabricate within the plant 40 foot high, by 40 foot wide, by 125 foot long assemblies, which are loaded out of the plant onto a rail car which goes down to the dock. There's a large crane there which lifts them off the dock onto a barge, substantially reducing the total cost of these large assemblies. So it is a unique addition, and one of the factors that has allowed us to maintain PSP as a profitable operation,
in spite of the fact that the dramatic cutback on coal-fired power plants has occurred.

Jacobson: Does the reduced shop labor rates fit into that picture of helping out profitwise?

Dornsife: The logic behind the Iuka plant had to do with where we saw the center of power plants being built in the years to come, and the freight factor. We saw vividly that on the West Coast very few coal-fired power plants would be built. And for those that would be built, they would be centered nearer to the coal deposits. So it was with that logic that we set that plant up there. Yes, it does have a lesser shop labor rate than San Jose had, but that wasn't the basic reason for the move.

Central Texas Iron Works


Dornsife: We acquired them because they fabricated structural steel for the petroleum refining and the petrochemical industries. Those were my bread and butter for my first sixteen years out of school, so we did have a major contribution to make there. We also missed the radical changes that were going to take place in refinery building. We didn't predict that, nor did many others.

In like manner, we didn't predict what would happen worldwide in the price of oil. In a third dimension, we didn't forecast the radical change that would take place in gasoline consumption, wherein the small cars that the U.S. was forced into building are today using one-third to one-fourth of the gasoline per mile that existed six years ago when we acquired Central Texas Iron Works.

They had four plants in Texas, and we have shut three of the four down for lack of work. But we are operating Central Texas Iron Works profitably, and we see them as having a good future.

Jacobson: What kind of radical changes in refinery building took place?

Dornsife: The radical changes that have taken place had to do with the fact that gasoline consumption has dropped so much that you just don't need the refining capacity. Hence, perhaps the most
dramatic of all the shifts that have taken place has to do with the fact that ten years ago 30 percent of the gasoline made in the United States was made in small refineries, refineries that ran fifty thousand barrels a day or less through them. Today about 5 percent of gasoline produced comes out of that type of refinery; the others have been shut down. Also, a third of the big refineries have been shut down because they just couldn't compete economically.

Now, in the last eighteen months, there has been a resurgence in petrochemical manufacturing because the low price of crude provides for that and the economical raw materials to make petrochemicals. So we are seeing a resurgence in that portion, but not anything in terms of major new refineries. There hasn't been a major new refinery built in the United States in the last six years, and we don't anticipate there will be in the next five. But there are modifications being made to existing major refineries to make them run more efficiently and more effectively, so we are continuing to get work from that source, as well as from the petrochemical plants.

As an example of the impact of this switch in markets, take Bechtel, one of the major engineering and contracting companies doing this kind of work. In the last six years they had cut their total engineering force by about two-thirds; they were down to about a third of the number of people doing that kind of work than they had six years ago. In the last fifteen to eighteen months they've started to bring some of those people back, but there's little chance for this part of their business that they'll ever get back to where they were six to ten years ago.

**Midwest Steel Erection**


Dornsife: I think the best and the fastest way to cover Midwest Steel Erection is that it was a mistake [laughs].

Jacobson: Do you still have the plant?

Dornsife: No. It was an odd plant. It was a company that had an equipment yard, but it did no fabrication. It was strictly in the erection business. It had an equipment yard and it had
offices. I had come to a point in my career where I wanted to find out if my executives could take on an acquisition and do it effectively. So I completely delegated it to them; I didn’t become involved in any part of the acquisition.

Unfortunately, they weren’t up to the level they needed to be to test it. Also, unfortunately, we learned—because I started digging in a year after we acquired it—that Midwest had two or three people in the top management who were quite dishonest, who were actually running other businesses on the side and doing a number of things that were terribly unfortunate. As a consequence it was sold last fall.

Jacobson: Was it undertaken as an opportunity for your executives; was there other thinking behind it?

Dornsife: The logic behind it was that it would make sense and was a good business move if, through its contacts in the Detroit area and the surrounding thousand miles, which was its principal area of doing business, it could bring more work to PSP and Central Texas. It was in that context that there was a basic strategy.

The mistake that was made was primarily a mistake in the assessment of the key people in that company, who represented they could do it, yes, and a number of good things that I wasn’t involved in at the time. But it developed that they were terribly self-centered and far too busy with their personal gain. They tried some of this dishonesty with the PSP management people and with Central Texas management people. By that time we had booked some major projects, and it was just a disaster. They tried to backcharge PSP and Central Texas, and we ended the dog fight by selling. We were able to sell it back to the former owners and get out of it. Sure, we lost money and it was a bad business move, but we didn’t try to make a silk purse out of a sow’s ear.

Corporate Management Planning

Jacobson: How much of your management time was devoted to acquisitions—Gillig and these others—as opposed to the steel company?

Dornsife: The amount of my time devoted to any particular discipline varies widely over a two or three year period. At the present time we have great opportunities to grow Gillig and PSP and CTIW, and to at least hold even on Herrick, if not grow it.
These challenges are of such a magnitude that we discontinued for nine months all considerations of further acquisitions, because we wanted to focus our time on the building and growing of these profit centers we already have.

There have been times in the last twenty-five years where 25 percent of my time was being spent on acquisition search. It has grown to that level at times. But over the last year, no time on it; and this is part of our business planning at this time, which is to grow within.

Jacobson: Were these acquisitions part of a larger diversification strategy, in terms of your thinking about how Herrick Pacific was growing and would continue to grow?

Dornsife: Yes, they were part of a master plan to grow the company. Herrick Pacific was formed as a holding company to enable me to do more total corporate planning and management, and not be involved with the individual profit centers. I have functioned in that manner significantly during the last five years since Herrick Pacific was born.

The acquisitions were all part of the master plan to grow nationally and to diversify sufficiently so we weren’t dependent on any one market. Because, as happened with Peninsula Steel and Central Texas, these markets can change in two years; they can change so radically, that if that were to have happened in high-rise on the West Coast, we would have been devastated so far as our steel fabrication was concerned.
VII CHANGES AND NEW DIRECTIONS IN THE STRUCTURAL STEEL MARKET

The Shift from an Industrial to Service Economy##

Jacobson: Let’s move back to structural steel and talk about some of the changes in the market for structural steel over the past thirty years. What would you say would be the most important developments that have influenced its use and demand for the product.

Dornsife: In answering your question I’d like to differentiate between high-rise steel frames and other types of structural steel fabrication. Until fifteen or twenty years ago, the West Coast was building industrially as well as business center-wise. Starting twenty years ago, its industrialization and the need for more medium-to-large sized manufacturing plants started to reduce, and service industries started to become a much more important part of the West Coast business climate.

Starting ten years ago we were getting significant off-shore competition for the kind of products that were being manufactured in the West Coast, and the high labor rates out here didn’t allow us to be competitive. So a number of truck manufacturing plants, auto manufacturing plants, and the like, had been shut down—just closed, and they’re out of business. The industrial growth in the western part of the United States has dropped off substantially. What you’re left with are steel for commercial buildings and for service centers which, if they’re large, are high-rise. If they’re small, they are commercial type.

The market for the former commercial and industrial structural steel frames has dropped in the last ten to fifteen years to probably about 20 percent of what it was fifteen years ago. Hence, no need for the small fabricating plants, and
probably forty of them have gone out of business. From the thirty-year ago framework, where I think I mentioned sixty, there were probably fifteen or twenty new plants built. Now, in total in the western part of the United States, insofar as significant plants are concerned, they're down to twenty or twenty-five total. So you have eighty, if you will, dropping down to twenty or twenty-five.

Impact of No-Growth Movements

Jacobson: What kind of impact have the no-growth movements that have sprung up in the various cities had on the structural steel industry?

Dornsife: I was going to volunteer an answer there, so thank you for asking the question. The no-growth, anti-high-rise movement in San Francisco has resulted in Herrick's not having a single inquiry for a high-rise building in the San Francisco area in the last twelve months. San Francisco had been 40 percent of Herrick's market ten or twelve years ago. The other shift that has taken place is that many of the headquarter office buildings that were occupied by major corporations have found San Francisco to be a poor business environment, and they have moved to L. A. and San Diego.

So the great adjustment that's taking place here has the greater Los Angeles area and the greater San Diego area growing and taking up what we've lost here. As the good Lord would have it, we saw this coming as a potential, and as a consequence we built a new plant and started it up in San Bernardino three and a half years ago. We refer to it as San Bernardino Steel, but it's an integral part of The Herrick Corporation.

Jacobson: What about in other states—Oregon and Washington, Arizona, Colorado; have similar movements had a similar impact on demand for business?

Dornsife: The shifts that are taking place nationwide, as we convert somewhat from an industrialized nation to a service nation, have impacted these areas also, but not at all to the extent that they have on the West Coast. Our business potential for new work in Portland and Seattle and Alaska is now probably half what it was five or six years ago.
Jacobson: Other than the Southern California area, then, it's drying up all over.

Dornsife: Yes.

Long-term Growth Strategies

Jacobson: Do you have a strategy for dealing with that major shift in demand?

Dornsife: Our plan was to have three fabricating plants, as we did our long-range planning six or seven years ago--the Stockton plant, the Hayward plant, and a plant in Southern California. In studying the Southern California potential, we kept learning about the attractiveness of those areas as a business climate. And they're nice areas for living, temperature-wise and otherwise.

We didn't begin to realize six years ago that the shift was as radical as it has been. Now 75 percent of the high-rise market is in the southern half of California. All of the information we receive is that it's going to continue that way, and the result is that we've shut the Hayward shop down--did that about nine months ago. Stockton and San Bernardino will be the two centers that we will continue to run.

We feel that the West Coast will continue to be an attractive business climate. The growth figures, all the reports that we get from the leading economists and consulting firms, tell us that we have a healthy environment. So our strategy is to stay with our A game, but just grow the San Bernardino plant. We've added to it already in order to accommodate the growth in high-rise work down there. Our executives are focusing, and will be for the next couple of years, on building it up in manpower fast enough to provide the capacity that we want to be able to turn out there.
Foreign Steel Purchases from Korea and Singapore

Jacobson: I want to return to foreign steel imports. How do tariffs or taxes play a role in influencing your buying?

Dornsife: Very little. We're dealing with something that's highly technical here, as we talk about this, and that is foreign steel. From the mills, yes, there is a quota. But foreign fabricated steel, no. So what we've done is to joint venture with three different Korean heavy steel fabricators, and one in Singapore. On major projects, we agree in advance with them that we will not work with anyone else but them if they, in turn, will work exclusively with us.

In the Library Square building in Los Angeles, the seventy-five story job, which is by far the biggest--it's a $30 million structural steel contract--we have a $10 million subcontract with Hyundai heavy steel. It is a part of the total Hyundai group of automobiles, shipbuilding, and the like. But it turned out to be a natural in terms of world trends, because shipbuilding fell off substantially for them internationally, and the heavy structural steel fits right in. We have a close relationship with them which includes our son having met with the American ambassador there and with the chairman of Hyundai, as we built this relationship with them over the last two or three years.

Jacobson: How long have you been importing the Korean steel and the steel from Singapore?

Dornsife: About three years. Foreign-fabricated steel hit us about five years ago for the first time significantly. We had some in-depth discussions about our strategy, our planning, and the like. My son was the leading decision-maker on it, saying, "We can't fight a $15-$20 billion company like Hyundai; let's find ways to join them." He took that on, and worked through friends and others to get acquainted with the U.S. ambassador, to find out when he was going there, and arranged some of these visits with him. It's been a wonderful relationship.

Part of the reason that it's a wonderful relationship is that others, five years ago, were trying to capitalize on this, but they would harpoon the foreign fabricator if any of the steel was faulty in any way when it arrived here. We had arranged with them to begin with that if any of the steel were faulty, we would bring it into one of our shops and modify it,
and charge them only our out-of-pocket costs—not administrative or any other costs, but just for the shop costs—as a part of it. This was such a dramatic difference from the experiences they had had previously, that they just hugged us [laughs], they were so happy to be associated with us.

The other major Korean company we have used as a source of fabricated steel is Samsung.

Jacobson: Do you continue to import from Japan and Britain?

Dornsife: Yes.

Jacobson: At reduced rates?

Dornsife: Yes. About half of our steel now comes from foreign sources, and about half from domestic. The domestic mills have significantly changed their attitude about guaranteed prices, but this is just in the last five years.

Jacobson: So the import tariffs did influence your decision to go to Korea and Singapore, and reduce Japan and Britain?

Dornsife: That was a byproduct of it. Actually, no. It was the fact that we knew that these powerful companies over there had lost their major shipbuilding, and they hadn't had work for their people. They were into this heavy steel fabrication and were coming into the United States. We had to decide if we were going to fight them or join them. It was deciding that we were going to win in the long run if worked cooperatively with them, and we've been able to make that happen and to do it well.

**Foreign Steel Tariffs**

Jacobson: Are the tariffs negligible, or were they not really a factor in deciding one way or the other? Have they ever been a factor?

Dornsife: I would have to say that the manner in which these are administered by our government is so complex that no one understands what's going on. They don't, and as a consequence we don't either. Yes, there is some monitoring of it, but in the areas of our interest we keep being put off in terms of what is happening, and how they are measuring it, and how they determine it at the docks. There's also a lot of monkey
business that's taking place, where some of the mills bringing raw steel in will drill or punch a hole in the end of each beam—one hole—and that's fabricated steel [laughs]. It's an extremely complex and virtually unmanageable problem, insofar as having the government run this kind of restraint.

Jacobson: Have you ever done any lobbying for reduced tariffs?

Dornsife: No. Our reason for that is that we don't believe we have any capabilities or any developed knowledge or know-how in this particular field. Our philosophy is, "Let's focus on what we know how to do, and let's stay out of the ethereal things that would be nice from a philosophical standpoint, but impractical insofar as what we know how to do."

Jacobson: Have there been any other government regulations of the industry that have had impact or consequence?

Dornsife: None of significance.

American Institute of Steel Construction and Other Trade Associations

Jacobson: What about trade associations that you've belonged to?

Dornsife: We are not basically joiners. We do look at trade associations constantly to see if we can make a contribution to them, and they can make it to us. Initially we did belong to the AISC, which is the American Institute of Steel Construction. We were members of that organization for ten or twelve years. Mr. Herrick was a director on it, and I participated modestly but never as a director or officer in it.

But as we got into the high-rise we learned that the AISC was dominated by the big mills, and so we resigned from it and have not joined it since then. Insofar as other trade associations are concerned, there are none that we found that are reasonably meaningful. The AISC continues to exist, but on a considerably reduced scale from what it was twenty years ago. We haven't found any that are meaningful insofar as our ability to participate and contribute to them.

The Bay Area Council is a group that we do belong to--I'm a director of the Bay Area Council--and we feel that it is an
centers and implement some of the things that we're in need of. My administrative assistant, Mary Gorlup, whom you know, will continue full time. Ester will be using her more on HEDCO [Foundation] work than she has in the past, to reduce Ester's load on some of that work. So this is where we are.

Jacobson: Thank you very much.

Transcribers: Hellen Kim and Judy Smith
Final typist: Judy Smith
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<td>16 March 1989</td>
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APPENDIX TABLE OF CONTENTS -- Harold W. Dornsife

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>Title</th>
<th>Page</th>
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<tr>
<td>I</td>
<td>Letters and Postcards from Mr. Earl R. Irwin to Harold Dornsife, Summer 1934</td>
<td>116</td>
</tr>
<tr>
<td>II</td>
<td>The Herrick Corporation Representative Project List</td>
<td>121</td>
</tr>
<tr>
<td>III</td>
<td>The Gillig Corporation Centennial News Release, 1990</td>
<td>123</td>
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</table>
Dear Harold,

I have been thinking about your schooling for some time and have been working on it. At last I have a good thing I think but I don't wish to explain it on this card. Write me immediately as to your evident address so I'll be sure you got the letter. Then I'll write you the particulars. Would I have written a letter but wasn't sure of your evident address. Would like for you to write me immediately. Hope you and Betsey and the rest are all O.K. Your friend,

Earl R. Erwin
Dear Harold,

Case was down the other day from Frankfort where he is going to coach this winter. He is getting help for five boys at the University of Southern California where his friend Barry is basketball coach. He told me the other day that he would include you on the party after my recommendation. Especially, I stressed your scholarship and ability which are most important.

Case said that if you are interested he would like for you to visit Frankfort soon, practice with his U.S. team and talk with him. The boys who are going will leave South Bend Sept. 1st I think. They are going out with a shipment of Studebakers. Kilgore of Anderson is one and I am not sure of the rest.

Case said that you would need $25. to start and that you would need no more money during the remainder of your college course. They give you an easy job which pays everything else including spending money. He will explain that
to you where he talks with you. Case told me that there was no college in the country
where they would take care of you like that. I would suggest that you write Case a
letter, find out when he is practicing and get down there as soon as possible. He wants to
look you over but I am sure he will send you because of his friendship for me as well as your
qualifications.

Hersold, I would like for you to keep this letter and its particulars a secret, at least as to
who is sending you and what you are getting. Once in a while those things are investigated
if they are broadcast too much and cause embarrassment to the college concerned.

I think, personally, that this is a wonderful opportunity for you and suggest that you
get right to work on it. I'll give all the help I can and I am sure Case will. Let me hear
from you about it.

Your friend,
Erwin
Dear Harold,

I don't know why I made the careless error but did not notice it until looking over your letter a minute ago. I was thinking you were coming down here Sunday after the ball game and I had arranged beforehand with Mallory to look after you until I got back from a date Sunday evening. We were both surprised until the landlady told me that someone had been here in the morning on Sunday to see me. I'm very sorry it happened. I was down home until 10:30 Sun. I got in here about 1:00 M. I play baseball with your Winchester near here on Sundays.

Before writing you this morning I thought I'd glance over your letter and noticed that you stated definitely you would be here Sun. morning. I don't know why I got the other impression. But I told Mallory the other way and we thought you would stay over Sun. etc.

Write me and let me know what you want to see me about. Sincerely,

C.S. Henderson
P.S. Just finished writing this when your letter came. At the other side will explain why we got tangled up.

Now for the questions. I'd work the remaining this week. Then I'd hitch hike down to Frankfort and go directly to Bampato's Cafe. They will know exactly where to find Case whether he's home or gone. Case is a good hearted fellow and you will like him. He is too strong on the drinking although he drinks only beer. I'd stay only for a practice or as long as he thinks fit and then hitch hike back. That way it won't cost you anything. When you talk with Case just be yourself for he is a very democratic sort of fellow and I'm sure you'll like him. Spencer and I were aiming to take you down there Mon. but I got all gummed up on your letter. I can't understand why I missed the train. morning part. My parents whom I stay with live at Middlefork just off state road 29. We are on the Middlefork phone. My school is out for another wk. after this one and I think you should get down to see Case before that. That fellow in Frankfort married is my brother. I don't even have a steady girl anymore. I suppose I am about the fattest from being married of any man in the world. When you go to school take just the clothes you have. Write me again - Irwin
# APPENDIX II
## THE HERRICK CORPORATION REPRESENTATIVE PROJECT LIST

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location</th>
<th>Owner</th>
<th>Architect</th>
<th>General Contractor</th>
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Note: The above list includes projects managed by the Herrick Corporation. The exact details and locations may vary based on the specific project requirements and the data provided.
### Major Office Buildings Cont.

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The Gillig Corporation of Hayward will commemorate its 100th anniversary this year with July 15th as its kickoff day. Employees, family and friends will celebrate with an old-fashioned picnic and festivities at Marine World in Vallejo.

Gillig, who moved its facility to Hayward in 1937, began operations in San Francisco in 1890 with a modest carriage upholstery shop run by Jacob Gillig. His son, Leo, joined him six years later. Grabbing hold of a new concept in transportation, Leo Gillig Automobile Works, and later Gillig Bros., held on, contributing their own innovative ideas to the automotive industry. A few highlights are listed below. A more complete history is also included for your information and use.

1890 Jacob Gillig opens carriage upholstery shop in San Francisco.

1906-1920 Built carriages and wagons. Upholstered autos and buses. Took on diversified specialty work by adding service shops and a maintenance and paint shop.

1920 Invented removable solid top for open touring cars.

1926 Custom boat division added.

1928-1930 Built commercial truck bodies of all kinds.

1932 Gillig built its first school bus. Following year built first all-steel bodied school bus.

1937 Built their first transit type school bus. Moved to Hayward.

1939 Key System/Gillig designed and built people movers for Treasure Island World's Fair. "Elephant Trains."

1941-1945 Engaged entirely in truck/bus production for war effort.

1953 Corporation bought by Stanley J. Marx.

1958 Diesel powered school bus coaches built.

1968 Gillig Bros. new facility on Clawiter Road completed. Becomes largest and best on west coast.

1973 The Herrick Corporation purchases Gillig Bros.

1976 Name formally changed to The Gillig Corporation. Entered the public transit bus business.

1980s Redesigned school bus.

The year was 1890, long before the automotive industry had etched its place in history. Jacob Gillig, a New Yorker and upholster with the Pullman Railroad Car Company heeded the call to go west young man and found himself in San Francisco. Relying on his past experience with railroad cars, he opened a modest shop at Golden Gate Avenue and Jones Street in his new community and hung out a sign, "Upholstery For The Fine Carriage Trade."

During the early years, his son, Leo, helped in the shop and by 1896, the 16-year-old youth was ready to join his father as a partner in the expanding business. Soon the two were not only doing custom upholstery work, but building custom-made carriages and wagons, and selling accessories for ready-builts as well.
NEWS RELEASE - The Gillig Corporation

The great earthquake and fire of 1906 destroyed the original shop as the entire city was swept away by the all-consuming flames. Although discouraged, the two were undaunted and immediately began to rebuild at a new location. Seeing the future for what it would be, the new business was called "Leo Gillig Automobile Works." Automobiles became their new focal point. However, disaster struck again in 1909 with the death of Jacob.

Chester H. Gillig joined Leo, later, in 1913, as a partner, establishing Gillig Bros. The pair built a new three-story plant on Franklin Street and greatly expanded the business. Gillig Bros. custom designed and built specialty vehicles such as hearse (elaborately hand-carved and richly upholstered), fire engines, autos, trucks, and early-model buses used by the various hotels to transport travelers from the train and ferry depots.

Leo and Chester made an excellent team: Leo specialized in finances and Chester was the dreamer, innovator and inventor. He also became the first Gillig to attend college, taking night classes to learn drafting and design.

As automobiles became more and more popular, the Gilligs continued an upward spiral in the new, fast-growing industry. Diversification included not only their previous specialty work, but service and maintenance, a paint shop, auto repair and collision (involving design of a number of tow trucks), and their very successful custom-made tops for the open, and airy, touring-style vehicles. With only button-down singlass windows to keep out the cold, customers clamored to buy the
Gillig top for a thousand dollars less than the least expensive sedan on the market. Although the sedan style was available in those early days, it was cost-prohibitive for the average consumer. Furthermore, sedans were manufactured primarily as Limousines and funeral cars.

The popularity of the Gillig top (also known as the California top) was a bonanza for the company. Purchased by such notables as Senator Phelan and the Gump family, the demand grew beyond Gillig's ability to keep up with the orders. Capitalizing on the venture, they entered into license agreements with other companies, furnishing the design and know-how and taking royalties for the tops manufactured and sold by others in the auto speciality field. However, by 1923, the introduction of the sedan at reasonable prices soon diminished further need for the Gillig top.

As production dwindled, the Gilligs found a good amount of empty space in their three-story building. A new innovation was needed to fill the void. The roaring 20s were in full swing, and the apparent well-to-do populace had both time and money for leisure and fun. What better product to manufacture than boats for the bay area's waterways. In 1926, the first "Gilligcraft" cruisers and runabouts were presented to the public. For reasons the Gillig brothers were never able to understand, the boat division was not successful and manufacture ceased after approximately one year of production.

Concentration then turned to the building of commercial truck bodies. Gillig could design and meet any customer's request ranging from small milk delivery trucks to lumber and garbage trucks. However, when
the effects of 1929's Black Friday began to impact the economy and the Great Depression came into full being, Gillig had to cut back to stay in business. Each one of the 30-plus employees accepted a reduction in pay just to keep their jobs. Chester took some heavy losses from the market, but the wily investor, Leo, had sold out before the crash.

The depression dragged on and on and by 1932, it became evident that if something didn't happen, and soon, Gillig Bros. would close their doors. Stanley Marx, a grandnephew of Mrs. Leo Gillig, who had joined the firm some years before, noticed that the nearby plant of William B. Gibson Company, a builder of school buses, was a beehive of bus-building activity. He suggested to Leo and Chester that they give the bus business a try. After much thought and consideration, Gillig took on the competition that included not only Gibson, but Patchett & Carstensen, and California Motor Coach. Shifting into high gear, they launched into sales and production of school buses. However, with no past marketing credentials in that line, Gillig sold their product on price alone, under-cutting the competition to get a toe-hold.

Early school buses were constructed with canvas tops, making them not only cold and drafty, but extremely unsafe. Gillig's innovative thinking again became a factor and within a year they hit the market with an all-steel bus. Obviously, the inherent safety factor sparked another sales bonanza for the company. Other school bus manufacturers were forced either to follow or sell out. By 1937, the firm purchased Patchett & Carstensen.

Chassis for the buses were manufactured by Ford, GM or International and delivered to Gillig's three-story plant in San Francisco. With the help
of a former GMC engineer, the original bus design was perfected and improved. Even the problem of leaks, which was a headache for Gillig and customer alike, was eliminated.

With the acquisition of Patchett & Carstensen and their inventory, finding larger, more efficient quarters became critical. Following an intense search, Leo located a piece of land with two buildings at El Dorado and Amador Streets in Hayward. He promptly negotiated with the owner, Food Machinery Corporation of San Jose, for the purchase, moving to the new facility in December of 1937. In addition to giving the grateful community a considerable economic boost, the merger, and the move, made Gillig the largest, finest and best-equipped bus-body factory in the entire west.

In 1939, the Key System Transportation Service of the Bay Area commissioned Gillig to work with their engineers to design a people mover for the World's Fair to be held on Treasure Island. The end result was an open truck designed to look like an elephant and equipped to pull three tram cars. The "houdahs" were lovingly termed "elephant trains." When the fair ended, Key System sold the elephants to eager customers all over the nation. Today, the Key System/Gillig idea of people movers is still widely used.

The late 30s also witnessed the introduction of the Hall-Scott underfloor engine. Gone was the old conventional body with an engine hood projecting out from the front. The new transit-style coach was boxey and rounded in design and resembled a very large loaf of bread. Gillig switched to the new style using a Fabco chassis, but within a few years elected to manufacture the chassis themselves. Their complete production line was not only more efficient and convenient, but more economical as well.
NEWS RELEASE - The Gillig Corporation

World War II stopped all public and private bus production, but soon Gillig became a part of the war effort. The government wanted all the trucks and buses the company could produce. Gillig prided itself on being able to deliver on a cost-plus basis without going over its estimate, and frequently were able to return money to the government.

When the war ended, Gillig found itself with a large supply of steel which had been ordered to complete government contracts. With restrictions lifted, school bus production began almost immediately. Having enough steel to produce 250 school buses, orders soon became backlogged. There was no need for "selling," and business zoomed to new heights.

The brothers Gillig had been in business for many years and during the late 40s and early 50s, talk of selling rumbled throughout the company. Ill will was also evident between the brothers. Stanley Marx wanted to buy Gillig from Chester and Leo, but lacked capital. Finally, through a plan to incorporate and sell shares, he was able to finance the purchase in 1954.

Under Marx's direction, the scope and range of Gillig's school bus business was expanded into southern California, Oregon, Washington and Arizona. Northwestern sales were boosted when Gillig purchased the school bus division of Kenworth, and went off the charts with the introduction of Gillig's first diesel-powered school bus.

By the mid 60s, Marx found the El Dorado facility inadequate for future growth. Property was purchased from The Herrick Corporation on Clawiter Road in Hayward's industrial park area. A new plant and move followed in spring of 1968.
Marx gradually acquired a considerable percentage of the stock. The business was profitable and ran smoothly, but in 1972, Marx began his search for someone he could hand the reins to when he decided to retire.

One day Marx was called by his friend and business neighbor Hal Dornsife, President of The Herrick Corporation. Marx was pleasantly surprised by what he heard. Wishing to diversify the interests of Herrick, Dornsife asked Marx if he would consider selling Gillig to Herrick. They met for lunch that same day and within a month they had reached agreement on the price for the purchase. The Herrick Corporation purchased Gillig Bros. in August of 1973, formally changing the name to The Gillig Corporation in 1976.

The late 70s also brought about Gillig's entry into the public transit bus field. Gillig negotiated a license agreement with the Neoplan Bus Company of Stuttgart, Germany, as a means for speeding up its entry into the public transit bus business. Within the first two years, they had orders in excess of 200 Gillig-Neoplan public transit buses for various transit districts. Gillig learned enough during this first two years to allow it to design its own public transit bus which could be built more efficiently than the Gillig-Neoplan model. During the early 80s, Gillig also redesigned its school bus to make it more attractive and more efficient to build.

Gillig's key management team views the next decade with an acute awareness of the bus industry's complex problems. They see the two most serious challenges to be met with this next decade as being related to air pollution and gridlock. They feel that transit buses must play a major role in solving these problems and that Gillig is prepared to be an integral part of making this happen.
NOTE: Photos are proofs. Final copies will be full frame and larger in size.

The Spirit

The latest model to roll off the assembly line of Hayward's Gillig Corporation.
Early school buses were constructed with canvas tops making them not only cold and drafty, but extremely unsafe. Gillig's innovative thinking again became a factor and within a year they hit the market with an all-steel bus.
Working with Key System Transportation engineers, Gillig designed and built 1939 World's Fair famous "elephant trains" to move people around Treasure Island.
Gillig Bros. custom designed and built speciality vehicles such as elaborately hand-carved and richly-upholstered hearses, and early-model buses used by the various hotels to transport travelers from train and ferry depots.
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