RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

NEW BRUNSWICK

AN INTERVIEW WITH HOWELL O. ARCHARD

FOR THE

RUTGERS ORAL HISTORY ARCHIVES

INTERVIEW CONDUCTED BY

SHAUN ILLINGWORTH
and
SANDRA STEWART HOLYOAK

NEW BRUNSWICK, NEW JERSEY
MAY 12, 2011

TRANSCRIPT BY

DOMINGO DUARTE

Shaun Illingworth: This begins an interview with Dr. Howell Osborne Archard on May 12, 2011, in New Brunswick, New Jersey, with Shaun Illingworth. Dr. Archard, thank you very much for coming in. To begin, could you tell me where and when you were born?

Howell O. Archard: I was born in St. Joseph's Hospital in Yonkers, New York, because Yonkers Hospital that my mother's obstetrician usually used had an outbreak of puerperal fever, a streptococcal infection. I almost made it to March 26th, but my official birthday is March 25, 1929, which makes me 82 now.

SI: Okay

HA: I think it was about 11:55 pm, and that was in 1929, a rather auspicious year because my father had just opened his business in Wall Street at 25 Broad St, directly across from the New York Stock Exchange, as a broker or independent stock and bond dealer. He was going great guns until I came along! [laughter] Anyway, I guess everything went well as he had a number of people working for him and a caretaker nursemaid to care for me, because my mother was spending much time caring for her ailing mother in Yonkers. Then, of course, in October of 1929, everything changed completely. It must have been a particularly devastating year not only for him, but for my mother because her mother died in December. I have this only on my mother's word. I am attaching an ancestry pedigree of my family pedigree.

SI: You were told.

HA: We lived, at that time, in Oradell, New Jersey. My parents had met at Yonkers High School in Yonkers, New York, around 1911-12; it was a very good and well respected high school at that time. My mother's family were Seventh Day Baptists and arose from old New England families. They were strict abolitionists, as her grandfather was a hero in the Civil War, a state assemblyman and later a state senator in Rhode Island. Her mother's side were Yale and Alfred University graduates. My maternal grandmother's name was Sarah Frances Chipman, and she married Charles Newell Richmond on June 22, 1893. A number of the Chipmans are buried in Mystic, CT, in the Elm Grove Cemetery on River Road, as you enter Mystic along the Mystic river. One was the Health Commissioner of New London, and another was a school architect in New York City with offices on Broadway in downtown NYC; they were all Yale people. That is the Chipman side of my mother's family, while on her mother's side they were Saunders from Westerly, Rhode Island. I am not certain what they all did, (some ran a cabinetmakers shop there that made furniture for homes in Newport and ship steering wheels during the Second World War), but some apparently had enough money to help endow a building at Alfred College, named Saunders Hall. Alfred was one of several Seventh Day Baptist colleges; others are found in Wisconsin and Iowa. They were educated, intelligent fundamentalists who were so fundamental they worshiped on Saturday, which made me wonder if they weren't some sort of Christianized-Jewish sect, but I did not know these people nor did I get raised in that religion. My mother's family, on the Saunders side, did trace their ancestry back to the 'infamous' Elizabeth Tilley of the *Mayflower*, who apparently had eight children after she landed here. They of course propagated and spread out. I believe John Adams was descended from that same heritage. [Editor's Note: Elizabeth Tilley was among the original Pilgrims who settled North America from England. She and fellow passenger John Howland promulgated many important

descendants, Founding Father and second President John Adams among them.] I used to visit the Babcock-Smith house (a national heritage site) in Westerly as a child, as Mrs. Orlando Smith, (Phoebe Alice Smith) who was a distant relative of the Saunders, lived there. John Adams and Ben Franklin stayed there; Ben Franklin set up the first post office in Westerly in the house.

The Chipmans, I don't know too much about, but the Richmonds were middle-class, entrepreneurial types - general store operators and undertakers - in Hope Valley, R.I. That is where my grandfather, Charles Newell Richmond, and my mother's brother, USCG Captain Edward Allen Richmond, are buried in Pine Lawn Cemetery. My grandmother, Sarah Frances Chipman Richmond, is buried there also, as well as my grandfather's first wife, Sarah Clark. They were married in 1882, but she died of "galloping consumption" (tuberculosis), in six months. I have considerable family records which I have put into albums that may go to the archives of the Oradell, NJ, Library, if not staying in my family. My mother had one brother, Edward Allen Richmond, who was born in Hope Valley, RI, in 1894, and my mother was also born there (as Rachel Richmond) on January 2nd, 1897.

SI: Before we go to your father's side, I wanted to ask a couple of questions about your mother's side.

HA: Yes

SI: First, it is very interesting that she was college educated, at that time.

HA: Right

SI: There were these family ties with Alfred College.

HA: Yes.

SI: Did she ever talk about why she went to college and what it was like?

HA: Well, let me get into that, because that's important. Actually, the Richmonds were quite religious to the point that they encouraged my mother to pursue church-related activities, namely the liturgy. She always said she was funneled into the liturgy for the Baptist church, as she was given piano lessons at an early age and apparently showed considerable talent. Indeed, she must have been quite smart and talented, because one of the reasons, I think, that they moved to Yonkers was not only that the Chipmans lived there, but that the high school was known to be very good. Her mother was a graduate of Alfred and reflected those educational values. My mother's father (Charles Newell Richmond) was a steam fitter and heating and plumbing contractor who worked with his hands; he was very strong and a very hard worker, but not a very good business man. His wife, Sarah Frances Richmond, known as "Fanny," had graduated from Alfred College with a Bachelor of Philosophy degree; she taught school in Hopkinton, RI, and they lived in Hope Valley and later in nearby Moosic, CT. My grandfather ran hardware stores in Hope Valley and Moosic, and later did heating and plumbing work, but was not very successful at most of these things, so he did not make any significant amount of money.

Although I do not know this for a fact, the Chipmans did have some money, as some of them went to Texas and were, I believe, instrumental in founding the Chipman Oil company in Texas.

It could have been that my mother's Alfred College studies were funded in part by the Chipmans, as I do not know of any scholarship, as such, that she might have had. She majored in music but could only stay for two years because basically she had accomplished what I guess her parents wanted to and could afford. I know she loved those days at Alfred and had many friends there and kept in contact with a number over the years. She was then sufficiently proficient with piano and organ to now perform the liturgical church services in such churches as the Judson Memorial Seventh Day Baptist church in Washington Square in NYC, as well as other churches. [Editor's Note: Dr. Archard is referring to the Judson Memorial Baptist Church opposite Washington Square Park in Manhattan]. It is now the Judson Center, I believe, owned by New York University; but it was previously the Judson Seventh Day Baptist church. She played the organ at a number of churches and studied privately with a professional pianist, a Professor Meyerhof is the name I recall. I believe he was a concert pianist and quite well known. She may well have been his prize student because when he retired he gave her (or sold to her) his music, books on music, several chairs and his baby grand Steinway piano. All I remember is that the piano took up about a quarter of our small living room at 729 Greentree Lane in Oradell, NJ. Incidentally, our phone number was Oradell 8-0292, and to make a call you spoke to an operator who connected you manually. Now that comes from almost eighty years ago! My mother took summer courses in music at Smith College as well, and thoroughly loved the college scene. She made friends easily with her thoughtful and kindly personality. My mother must have been a remarkable person in college by virtue of her intelligence, her talent and her remarkable moral upbringing, reminiscent of the "*Devotio Moderna*" movement of the 1400 and 1500s. She graduated from Yonkers High School with a NYS Regents Diploma. Those were very difficult diplomas to obtain as they were the result of very difficult exams that tested everything, including Latin. [Editor's Note: Regent examinations are standardized tests given in the New York State public school system measuring proficiency in all subjects]. She found her way into college, I think, on the basis of her skills and intellectual ability. I know she loved education and her college days at Alfred. She once said she would like to have been an architect (like her uncle possibly) or have gone into engineering (she would have been most proud of my daughter who graduated in aerospace engineering from MIT, Class of 1985). She liked to take things apart and repair appliances which she did with great skill. I suppose her exposure to the church and the persistent moral message so typical of America at the beginning or first third of the 20th century had much to do with her value system. It was built around the old Protestant work ethic, but most others who came here also had that work ethic and built a great deal of individual trust. It was the era of J. P. Morgan and the growth of capitalism. Jean Strouse's wonderful work on Morgan really should be read because people misjudged this man and the moral tone of the time; it was a time when a man's word was his bond. [Editor's Note: J.P. Morgan was a leading financier and business magnate, responsible for companies such as General Electric and US Steel. The book Dr. Archard refers to is Jean Strouse's *Morgan: American Financier*]. He was not a grasping individual. He believed in trust, and I have always believed that trust was the most sacred covenant that could exist between two entities - not just people, but I trust the sun will come up tomorrow. [laughter] Bernard Baruch in his autobiography ("*My Own Story*") attests to that fact when he proposed a deal to make a killing in a railroad investment with Morgan; Morgan threw him out of the office and would have nothing to do with him after that. Baruch admitted he had misjudged Morgan's intent: Morgan wanted to use capital and put it to work for the economy and to expand the nation, not just to make money.

Anyway, I'm rambling on and on. My mother was a very powerful influence on my life because she was educated and insightful. There's an old expression: "If you educate a man you usually educate just one person, but, if you educate a woman you quite often will educate a whole family." The greatest movement in this country really was started by one man whom I consider was the greatest "unknown" American around; he was Justin Smith Morrill, the longest serving Senator in the 19th century US Senate. In 1862, the first Morrill Act was signed by Abraham Lincoln; it provided for Land Grants to the states to establish state universities dedicated to teaching the agricultural and mechanical arts. It wasn't until 1896, that the Second Morrill Act was passed and that provided federal funding for these universities. [Editor's Note: Senator Justin Smith Morrill of Vermont sponsored the Morrill Acts of 1862 and 1890, which established and funded many state colleges after the Civil War and led to the growth of higher education in the United States. The Second Morrill Act required states to prove race was not an issue concerning student admissions or to otherwise provide for separate institutions for minorities.] The man who first brought this to my attention was none other than Dr. Mason Welch Gross, Professor of Philosophy here at Rutgers [Editor's Note: Mason Gross was a television personality and, later, President of Rutgers University from 1959 to 1971. He was a panelist on the quiz show *Think Fast* and later a judge on the show *Two For The Money* in the 1950s] Dr. Gross was a scintillating lecturer and philosopher, cosmologist and could speak with charm, grace and erudite authority on any subject unlike anyone I have practically ever heard since. He was one of the first, as you know, to put on a quiz show on the first primitive television, when it was just a small round cathode tube. [laughter]

I have wandered off course terribly, but certainly, my mother was the most powerful influence in my life. She also motivated my father, who was not a Regents scholar, but graduated from Yonkers High School, a year ahead of her, aspiring to become a doctor. He was very much a self-made man who was determined to succeed, and he was very quick at math. He was half Irish, as his mother was an uneducated (and irascible) Irish Catholic, who "spawned" rather than "tutored" three boys, of which he was the youngest. Her name was Josephine Dillon, and really nothing is known about her, or for that matter any of my father's family. He would never talk about any of them. His father was Anglican and came from an old Anglo (probably Huguenot) family that settled in the 1830s in Hastings-On-The-Hudson, NY. My father was a man of honorable principles and values as he admired J.P. Morgan. He said he sang in the choir of the Cathedral of Saint John. His father died suddenly in 1925, presumably of a heart attack, and left no wealth at all. My father's mother took her own life two years later. I have this only from my mother. The Great Depression that hit in the '30s was devastating to him and more than he could handle. Had it not been for my mother's encouragement and musical skills that she put to work, he would never have made it. She held the family together as the organist at the Dutch Reformed Church in Oradell and by teaching piano and organ. There is something to be said for women's liberation, but I think that was a kind of liberation that most present day women would never understand. She epitomized the old adage "When the going gets tough, the tough get going!" She was not tough or callous in attitude or demeanor, but she had persistence and the ability to concentrate and apply herself and find an acceptable solution to problems. I have often wondered whether that might have been a byproduct of her ability to concentrate so much when playing the piano, especially when playing Beethoven's *Appassionata* or other challenging musical works. She would bite her lips in such intense concentration. She was the same about reading, crocheting, or anything she did. She loved books and reading and started the Oradell Book and Needle Club for women during the Depression. Women's clubs were common in

those days, and one year she served as the Bergen County delegate to the Federation of NJ Women's Clubs convention in Atlantic City.

[TAPE PAUSED]

HA: Giving you a little more background, as I said previously, "If you educate a man you usually educate just one person, but if you educate a woman you educate a whole family." My mother saw to it that we had all kinds of encyclopedias and books around. As I noted she helped start the Oradell Book and Needle Club, and she also started a "Book of the Month" club within it. Each member bought a book and then rotated it monthly. This is the time when similar book of the month clubs were sponsored in the newspapers. We used to say the house could fall down around her when she was reading, and she would not notice it. She had Harvard Classics (Dr. Elliott's Five foot shelf), Compton's Encyclopedia, Collier's Encyclopedia, etc., in the house, so we were exposed to the most comprehensive information sources for our school work. They were the "Google" of that time.

I had an older sister, Alice, born in 1924, now deceased, who went to Glassboro State Teachers College during the war in 1941. She did not have the intellectual curiosity I had; we were very different in many ways. I tended to take after my mother while she and my father were more alike. She was very pretty and tended to be a "people- person" and socially active. As a child during the cold winter nights, we would be huddled in front of the fireplace. This is during the Depression and the war and heating oil rationing. My father had converted the coal burning furnace to an oil burning furnace back in the '30s, when oil was cheap. Oil became the universal fuel in the country, promoted by FDR, in part, to break the power of John L. Lewis, head of the miners' union. I remember enjoying going through every one of the ten volumes of the Compton's Encyclopedia page by page. I was a slow reader (and probably dyslectic) but slowly picked up my reading skills and have enjoyed reading ever since (especially history, finance, science and politics).

SI: I would like to go back and ask a little bit more about your father's career in business and the relationship between your father and your mother there.

HA: Right. Well, that's the important difference I'm trying to make, and that is that he came from what would now be called a dysfunctional family. He had been literally thrown out on the street by his mother, along with his two older brothers: Raymond, the oldest, Percy, the middle, and my father, Howell, the youngest, for whom I am named. I believe this occurred before his father died, as they had no money, and his mother was probably manic/depressive. This was told to me, in all confidence by my mother, but she had no reason to lie or misrepresent the facts. The boys had to go out on their own and support themselves, so none of them went to college. He wanted to be a doctor, and he did take chemistry at NYU, but he realized he didn't have the money to complete college. This was in the pre-World War I period, so he worked as a teller in the banks, especially the Seaboard National Bank. You may have heard of Hetty Green; do you know her?

SI: I am not familiar.

HA: Hetty Green is known as the "Million Miser of Wall Street" or the "Witch of Wall Street." There's a book written by Slack, I believe was the author, called "*Hetty*," [Charles Slack's, "*Hetty: The Genius and Madness of America's First Female Tycoon*"]. She was the richest woman in the world with an estate of well over a hundred million dollars at the time of her death, but her son, Ned Green, had a bank, the Seaboard National Bank, and my father was a teller in that bank. [Editor's Note: Hetty Green, the "Witch of Wall Street," was an American businesswoman and one of the first businesswomen to have influence on Wall Street]. One night they worked very late balancing the books, all by hand. He actually used an abacus in those days. He came in about twenty minutes late the next morning, and the Colonel, as he was known, ("Colonel Green" a fictional title he got in Texas) called him over and wanted to know why he was late. My father, with his Irish temper and upbringing, would tolerate none of that so he quit on the spot. Well, if he had stayed on, he might well have ended up as a partner in Morgan Stanley or Morgan Guaranty, [laughter] because many of those tellers went on into the banking and brokerage industry. He started out in the banking world before common stocks were considered safe. You know, it was considered gambling to, essentially, invest in common stocks. Everything was bonds and trusts that were considered safer, and it was a time when you were expected to pay off your debts and all that. It was a different day and age; it was the "Age of Morgan." After that he worked briefly at the Royal Bank of Canada, Lord Mountbatten's bank in Toronto, Canada. He didn't last too long as his salary was thirty dollars, *a month*! [laughter] Imagine how far you can go on that! So he returned to New York, where the salary might have been thirty-five dollars a month! [Laughter] Anyway, he worked in the banks, and then got into the brokerage industry, (Smith Barney among others, I believe, then in a partnership with Phil Boyer for two years) probably, because he saw that's where money could be made. The *laissez-faire* period in the post-First World War period, (under Presidents Warren G. Harding, Calvin Coolidge, and Herbert Hoover), turned out to be one of the great growth periods in this country. There were few regulations. There were other people who saw this wonderful opportunity, like Joe Kennedy, who became a master of "pump-and-dump" and hyped stocks; he cornered the market on stocks or commodities and then hyped them, later to dump them at huge profits. My father had no use for Kennedy. [Editor's Note: Joseph Kennedy, father of President John F. Kennedy, was an important businessman and politician and first Chairman of the Security and Exchange Commission and later US Ambassador to the United Kingdom]. My father belonged to the more moral Anglican approach, the JP Morgan "wanna-be" types, who were honorable and trustworthy in their dealings. He was very honest in his work and greatly trusted as large amounts of money were moved by telephone orders, without a written confirmation. He had a number of well-known clients when he had his own business (Howell O. Archard & Co. at 25 Broad St.) including Colgate W. Darden who was Governor of Virginia and founder of the business school at the University of Virginia that bears his name. He had a client and colleague, Harry France, who ran a syndicated column for King Features; I've forgotten the column name ["The Investor's Forum"]. He was a professor at Columbia in economics, I believe, and a contemporary of Ben Graham (whose real name was Ben Grossbaum - there is a fascinating biographical history of him, as he was author of the renowned Graham and Dodd text and held several appointments at Columbia). I have too many connections (a fugue of ideas) going on, [laughter] and one thing brings up another, but anyway, my father worked at Smith Barney for a while and some other brokerage concerns, possibly Spencer Trask before setting out on his own. So many of these brokerage companies have merged or disappeared and gone out of business. He loved the excitement of Wall Street and New York. As a teenager, I went to his office at 25

Broad St. and "ran" for him, delivering confirmations and stock certificates. His company was "Howell O. Archard & Co., Dealer in Stocks and Bonds," but, now, 25 Broad St. is a condominium for Wall St. workers. I recall during the Depression how angry he was about the SEC auditors, under Joe Kennedy, who came into his office and spent days going over his books; they literally harassed his work efforts and took up his time in the one room office. What they were looking for I do not know, but it made him wary of governmental regulations and control. As a conservative, he was a special target for these inspectors. He did not talk too much about the business thereafter, and that may have been because had he or anyone in his family been caught doing "insider trading', he could be prosecuted. He despised FDR who he said was anti-small business and prolonged the Depression, an observation that is now being reconsidered by objective historians.

My father did make a lot of money before the Depression and built a very lovely summer "cottage" directly on the ocean in Quonochontaug, Rhode Island. My mother's family had had a small "cottage" in the older part of the beach that was higher up on a rocky outcrop. My parents loved the beach and built the thirteen room home in 1927-8. We went there every summer even during the Depression, and as a child, my sister and I loved it. It was rented to make money in 1937, but that came to an end in 1938, with the New England Hurricane. [Editor's Note: Dr. Archard is referring to the Great New England Hurricane of 1938, which hit Rhode Island on September 21, 1938.] There were only four houses out of some four hundred destroyed that had the proper wind insurance. So, there was no recovery on that house, and, finally the bank took the property over because my father refused to pay a mortgage on a home that did not exist. Of course, those waterfront homes up there now are multimillion-dollar homes. Anyway, we lived a secure childhood, when he was not making any money, because my mother turned her talents in organ and piano into a marketable skill at the Dutch Reformed Church in Oradell and at home where she taught piano. It was the largest church in town and well attended. That was when it was an old wooden church which now has been replaced by a beautiful brick Georgian Colonial style building, now called the Oradell Reformed Church. She served as the organist there from some time early in the Depression, when I was only one or two years old, because I remember having to sit in the back of the choral room while she was the accompanist for the choral group, choir or whatever. So she served there probably from around 1930 until we moved from Oradell to Park Ridge, NJ in 1946, when I graduated from Dwight Morrow High School in Englewood, NJ. She essentially held the family together with multiple services, such as Sunday services, Sunday and Wednesday evening vespers, choral groups, weddings, funerals, etc. She also taught organ as well as piano. As a matter of fact, my grade school music teacher, Miss Chapel, took organ lessons from her, [laughter] but it was all during an interesting period of duress: the Great Depression, and the Second World War, which were the formative influences in my life. I recall getting up one morning as a child, and the radio was on; it had an overseas broadcast of some shrill foreign voice and screaming crowds being broadcast, and I asked my father what it was. He said "It's a crazy man in Europe, and he's going to get us into a war." It was Adolf Hitler at the Munich rallies (six Munich rallies were held between 1933 and 1938).

SI: Do you remember what year that was, approximately?

HA: Probably 1937, '38, before, oh, the English went to war in September 1939, when Poland was invaded on September 1, 1939, and the British and French subsequently declared war on Germany. I remember going to the movies, which was the only visual or audio-visual

information that we could get. Another way was with Life Magazine that started publishing on September 23, 1936. We went almost every weekend, sometimes with my parents, but later as I got older, I went to matinees, mostly to the Pascack Theater in Westwood, NJ. I took a bus to Westwood from Oradell. I would go with my sister at first, and then a friend to see movies. My father was always intent in watching the newsreels and listening to the news on the radio trying to keep abreast of events which were so important in his work. I remember how amusing it was to watch the goose stepping Gestapo troops, kicking up their boots high, almost straight out. While leaving the theater I tried imitating them, and my father became very upset, and he reprimanded me in some way. He said something about it being symbolic of the rigid mind and the conformist mentality. He was always bitterly opposed to all dictatorships and authoritarianism (including the Roman Catholic Church). It was a period best described by Winston Churchill in his *Gathering Storm* [the first volume of Winston Churchill's extensive history, *The Second World War*.] in his biography that tells of this terrible and frightening period. These were socialist countries that had succumbed to dictatorships.

SI: Do you want to take a break?

[TAPE PAUSED]

SI: Could you just summarize that?

HA: Yes, no that's all right, yes.

SI: Can you tell me about the impact this period had on you?

HA: The Great Depression and the Second World War, what Churchill referred to as the "Gathering Storm" in his wonderful biography, was the most formative period for me. These were desperate times. People were without work, some evicted from their homes. My father had no business at all. He, of course, let everybody go. He was down to one telephone in his single room office, and it didn't ring once day after day. Nobody was buying stocks and, yet, this was the golden time to be investing in America, but nobody had money to do so.

SI: Did he have an office in New York?

HA: Yes, his office was at 25 Broad Street. I think it was on the fourteenth floor, and he did not have a partner or anybody working for him during the Depression. He could not pay the rent (I later learned from my mother), but he told them (the building rental service managers) that he would pay up if they had someone who wanted to rent the office. My mother was holding the family together, while my father turned the backyard into a huge garden. Our house was on about a half acre, and the garden essentially fed us during the Depression and the War. We raised chickens from peepers or pullets right up to laying hens or to Sunday dinner. [laughter] The roosters and non-laying hens went into the pot. [laughter] So, we ate an awful lot of chicken, mostly on weekends, but we raised tomatoes from seeds, and this was before the world war set in and people had "Victory" gardens. During the war, of course, everybody had Victory gardens, and, at that time, I remember, we canned something like two hundred quarts of tomatoes, which were always a side dish at all dinners throughout the winter. [Editor's Note:

Many Americans grew their own vegetables in small gardens known as "Victory" gardens" during the war years due to food rationing and to contribute to the war effort.] So, that and the sun exposure during the summer in Quonochontaug until 1937, actually kept us quite healthy. That last year, actually the summer of 1938, my father rented the summer home to make some money. He, I later learned, had borrowed against the mortgage on the Oradell house, that is, renegotiated and increased the mortgage on the house, and did all kinds of financial maneuvers that he learned about in Wall St. and held onto his business at my mother's behest and encouragement. I remember him coming home and standing by the piano crying as he was not making any money. It was a very stressful and emotional time, but he was in the same boat with everyone else. People knew that a war was coming in Europe, and he probably saw a war economy coming if he could hold on. I remember very well the newsreel showing Chamberlain leaving the Folker airplane holding his paper signed by "Herr Hitler' promising "peace in our times," probably the most classical example of appeasement ever. And I was in the second or third grade in 1936, and the only Republican kid in school [laughter] wearing a lapel pin that was brown with a sunflower on it saying "Landon," the Republican candidate for president, while everyone else had a red, white and blue FDR button! My father saw through FDR, because he saw him as a socialist, which he was bitterly opposed to. [Editor's Note: Republican candidate, Alf Landon, ran against President Franklin D. Roosevelt in 1936, and accused FDR of attempting to set up socialist programs, such as Social Security,] At that time many people admired Swedish socialism for its low unemployment rate and various social programs. He felt it did not inspire competition, which was his *modus operandi*, and it was highly over regulated. [Note: See "*The New Totalitarians*" by Roland Huntford (1972) Stein and Day, a very interesting analysis of Swedish socialism]. Indeed, it has been said, and it's correct, that every dictatorship arises on a socialist agenda. I'm very interested (and I hope I live another four or six years) to see the outcome of what's going on in this country, as everything is driven by the population increase and the unrelenting laws of "supply and demand and survival of the fittest."

My mother was a "fit" individual with enough perspective of history that she could put things together and had faith in the future. My father was very persistent and willful, and determined that he was going to make a go of it, even though, as he said, he was not making as much money as the elevator operator. So he held on, and, with lend lease, everything turned around. It also helped save FDR. Suddenly, Rockwell Manufacturing, that made taxi meters and truck axils in Pittsburgh, I'm not certain, became North American Rockwell, and the boss, Paul Hoffman, was appointed by Roosevelt, as head of the Office of War Mobilization or something of that nature. [Editor's Note: Lend-lease was a policy pursued by the Roosevelt Administration that allowed US weapons and material to be given to the Allies, to be paid for after the war. The North American Rockwell Corporation was formed in 1967, from the merger of Rockwell-Standard Corporation and North American Aviation. The Rockwell-Standard Corporation, having adopted the name in 1958, had previously been the Rockwell Spring and Axle Company, Timken-Detroit Axle and traced its roots to a Wisconsin-based axle manufacturer reorganized in 1919 by Willard Rockwell. During World War II, Rockwell's company produced eighty percent of the axles for Army vehicles, including the two-and-a-half ton, four wheel drive truck, which Rockwell helped design. During the war, Colonel Rockwell served as assistant to the Chief of the Motor Transport Division of the Army and later, Director of Production and Procurement in the US Maritime Commission. To correct the record for Dr. Archard, Paul Hoffman was Director of the Economic Cooperation Administration from 1948 to 1950.] Rockwell, I believe, saw to it that contracts went out to various war mobilization companies, and, suddenly, Rockwell

got big contracts for, I don't know, tanks, trucks, vehicular parts and the like. My father, I think but do not know for certain, may possibly have had inside information or knowledge (possibly from the banks) or may have surmised this was a potentially good investment, but he went ahead and invested in Rockwell. He may have borrowed money from the bank and gone out "on margin" to buy the stock. He would have known how to do this and undoubtedly had the bank credit and reliable reputation to do this. All I remember is him talking constantly about Rockwell in the late '30s or early '40s about the company, and then lo and behold, the company split its stock. If I have it correct, they split eight hundred for one, as it may have been a family-owned company that went public. That is when my father made a lot of money and he built a lake home at Highland Lakes, NJ. It was before the war, as he sold it when the war broke out, after only a few years ownership, because of automobile gas rationing; we could not get there from Oradell. At that time, Wall Street was loaded with "insider information" and I think it always will be. I don't think it is possible to maximize the efficiency of information so that it is distributed to everyone at once. I don't know, maybe the electronic revolution can do this, but I'm not certain. Clearly, my father had a great many friends in Wall Street; it was his lifeblood. He just loved it and made quite a bit of money. So, he turned around and built a summer house at Highland Lakes, NJ. [laughter] So we had a summer house again to go to, but then the war came along on December 7th, 1941. We were sitting at the dining room table having our early "chicken dinner" when a neighbor called and told us to turn on the radio: "They've bombed some place called Pearl Harbor!" We sat there at the table, and the first question was whether my father (then 45) would be drafted. After doubting so, they turned to me, and I was probably 12, and it was uncertain as it depended on how long the war would last and what the outcome would be. I have always said, in fact, that I probably would have been dust on the shores of Japan had it not been for the atomic bomb. Both Leo Szilard and Albert Einstein drove around on Long Island knowing the possibility of such a bomb from atomic energy and not knowing what to do about it. Szilard got Einstein to sign a letter to President Roosevelt, and that began the Manhattan Project. [Editor's Note: The Manhattan Project was the codename given to the research and development of the atomic bomb during World War II. Leo Szilard conceived of nuclear chain reactions in 1933, and, later, wrote the letter Einstein signed in 1939, urging President Roosevelt to develop an atomic bomb.]

SI: Before we get deeper into World War II, I wanted to ask more questions about your childhood.

HA: Yes.

SI: Can you tell me a little bit about what Oradell was like then? What was it like to grow up in your neighborhood in the 1930s?

HA: Good question, yes. Oradell, I didn't realize, was a very secure and refined bedroom community for NYC. It opened up really with the George Washington Bridge, which must have opened around, I don't know, 1929.

SI: 1932?

HA: I thought it was in the late '20s, as my mother said they took her mother for a drive to see it (I assumed across it), and she died in December 1929. [Editor's Note: The George Washington Bridge opened on October 25, 1931.] My father was making big money and had an expensive Packard sedan at that time.

SI: Okay

HA: I have to look it up and find out when the GW Bridge was opened. I remember going across the bridge as a child and looking down at the water, because there were only two lanes each way and in the middle was a grate and you could see the water (Hudson River) below. [laughter] Now you have an undercarriage roadway below as well as four lanes each way above. It is a masterpiece of advanced planning people never think about. They planned it with the expectation of putting a subway on the lower concourse, but the auto has changed everything. [laughter] I remember at the far end of the bridge in Manhattan there was a YMHA [Young Men's Hebrew Association] in an old brown building, and all that is gone. The Port Authority has a bus terminal [George Washington Bridge Bus Station] there now. Anyway, where were we?

SI: You were talking about growing up in Oradell.

HA: Oh, Oradell, yes. My mother probably funneled my father towards Oradell because she loved the rural scene, the farming area there, just as my father did, but maybe he even more so. He had a favorite uncle, George Archard, who was in Hastings-On-Hudson as a wheelwright and had a farm. That was the most memorable thing that I recall him talking about, as a child, and we were not allowed to ask too many questions as a child. Just parenthetically, when we were having dinner, my sister and I had to be absolutely quiet, because he was listening to Douglas Edwards, H.V. Kaltenborn, Lowell Thomas, the old 30s evening radio newscasters, and he wanted to stay on top of all the news. He read the newspaper, like the *Sun*, the *Herald Tribune* and others, and tried to keep up with everything that was going on. He would listen, on Sunday night from nine to nine-fifteen, to Walter Winchell who was one of the worst Wall Street 'tipsters' and hyped stocks consistently. He was a real fraudulent journalist. [laughter]

Anyway going back to Oradell, it was a very sophisticated town with a number of talented people. The most famous probably was the noted animal artist, Charles Livingston Bull. He accompanied Teddy Roosevelt on his expeditions to Africa, painted the leaping tiger for Barnum and Bailey Circus and did many of the backdrops for the American Museum of Natural History. We lived a block away from Soldier Hill Road, so named for Washington's Revolutionary Army troops that retreated across New Jersey. I am not sure it was known as Oradell in those days, but the hill was very steep as it went down to the Oradell Reservoir. There were large estates overlooking the reservoir; the Bellis estate was on Soldier Hill road a block from Greentree Lane where we lived, then behind it was a large field and beyond that a large stone castle (looking like Heidelberg Castle) [laughter] that belonged to Hiram Blauvelt, with fields that go down the hill to Kinderkamack Road. His wife was a Demarest, and her brother was Henry Steele Demarest, president of Rutgers. Today, the old stables have been converted to the Hiram Blauvelt Museum which features primarily animal artwork, paintings and sculptures. It is an incredible gallery that features a number of Charles Livingston Bulls paintings which were typically action portraits of charging bull elephants, leaping tigers, etc. [Editor's Note: Hiram Blauvelt was a philanthropist

and conservationist. The museum was established in 1957 in his honor. Charles Livingston Bull was a premier wildlife artist from Oradell.] Apparently there is an archivist in Oradell, Mr. Steven Carter, at the Oradell Library, (where the widow of C.L. Bull was the librarian for many years when I was a child). I met with Mr. Carter several years ago when I visited Oradell, and I also dropped into the Reformed church. I picked up a news-letter when I visited the church, and it indicated there was a need for money to repair the organ. So, I sent them a contribution for the repair, and they sent me a lovely dish with a list of the ministers on the back and portraits of the old church I remembered as well as the current church on the front. I'm off track again. Oradell was a bedroom community for many of the elite in NYC. I am sort of wandering away, but, oh, I met, at the Blauvelt museum in the old stagecoach house, a Mrs [Marijane] Singer. I identified myself while she was sorting some things and asked a question about the Blauvelts and stated I had gone to Rutgers, indicating also of my having grown up nearby. She said she was on the Board of Trustees of Rutgers, and she showed me a photograph of Hiram Blauvelt. She told me his wife was a Demarest and the sister of [William] Henry Steele Demarest, a former Rutgers president.

SI: Okay

HA: Who was the president of Rutgers before I got there, when [Robert Clarkson] Clothier was President? [Editor's Note: William Henry Steele Demarest was President of Rutgers from 1906 to 1924. Robert Clarkson Clothier was President of Rutgers from 1932 to 1951.] Anyway, my Sunday school teacher was Percy Demarest. I had a perfect record [laughter] going to Sunday school from kindergarten all the way through high school. My Sunday school teacher was Percy Demarest, who was another brother, I believe, or related to the Demarest family, and, of course, you know Demarest, Closter, New Milford, Bergenfield are towns that are nearby to Oradell. So I suspect these towns harbored some of these old families of Demarests, Blauvelts and whatever. [laughter] I don't think the (Hiram) Blauvelts had any children. I can't tell you too much about them. It was a very lovely town, and it had a junior high school (on Prospect Ave about six blocks from our home) that was one of the most beautiful junior high schools anywhere. I have no doubt that my mother, seeing that junior high school, which had a gymnasium at one end and a very beautiful auditorium on the other, wanted to be in this town for its educational opportunities. They found a three bedroom Dutch Colonial (at 729 Greentree Lane), that I think my father bought with a mortgage for seven thousand dollars, which he sold for about twice that amount when we moved to Park Ridge in 1946. He could not believe selling it for that price (we just don't understand inflation). [laughter] A big salary when I was growing up was when my sister got her first teaching job after graduating from Glassboro State Teachers College (now Rowan College, I believe) and it was around three thousand a year! And that was a year of exuberance right after the war. [laughter] People don't realize what government spending will lead to: just bigger numbers and you're chasing more and more dollars, sort of spinning your wheels just to stay in place. I had a wonderful education from my father, although it was sort of negative [laughter] in the sense that he was very difficult to deal with. Early on I learned from him about interest rates and inflation as he talked about them with my mother at the dinner table. He was "fighting Irish" and could easily pick a fight with anyone. He had to put people down and be the big "I am," which reflected his insecurity. My mother always let him have the last word, realizing, as her mother had taught her, "you cannot control others until you can control yourself" (her favorite Biblical saying). She was his sounding board and listened to his constant

worries. I probably became his "whipping boy," as he was intolerant of children, and probably did not want any, although my mother clearly did. He always reminded me to obey the Fifth Commandment: "Honor thy father and thy mother" or told me "children should be seen but not heard" as he was strictly brought up as authoritarian Victorian, in every sense of the word. "Father knows best" and was always to be in charge. My mother was very much stressed by this because he would take his anger out on her, my sister and me. He was terribly insecure and worried ceaselessly about his work, investments and what was going on in Wall Street. I think he was very much disturbed by what Eisenhower referred to as "the military-industrial complex." [Editor's Note: President Dwight D. Eisenhower addressed the nation on January 17, 1961, as his administration came to a close, expressing concerns he had for a growing military-industrial complex and deficit spending.] What my father saw in Wall Street during the war and after, disenchanted him quite a bit with Wall Street. He called it the biggest craps game on earth, and would frequently ask: "Where is it all going to end?" He would always try to predict the future for the best investments, and long before the Cuban missile crisis he predicted the Soviets would try to put missiles there. My mother was not a well person, as she probably had a cardiovascular defect of some kind. It didn't help that she took up smoking at my father's behest in the 1920s. She would wake up at night (in Oradell) gasping for breath; it was called 'paroxysmal nocturnal dyspnea' now recognized as right-sided heart failure. When you're asleep the blood vessels dilate and blood backs up on the right side as the heart tries to slow down. When it does not have sufficient power to pump blood through the lungs and to the left side of the heart, it causes right heart failure from excess blood on that side and in the lungs. Finally, the body is aroused and the heart is made to pump out the backed up blood and the lungs compensate by responding to the increased oxygen demand with hyperventilation or dyspnea. Her cardiac efficiency may well have been compromised by a cardiac anomaly (e.g. atrial or ventricular defect). Interestingly, her mother died of erysipelas, a skin manifestation of Streptococcal infection that commonly occurs in patients with cardiovascular defects or rheumatic heart disease. She could have conveyed the organism to my sister who would have been about five or six, as the Strep organism can cause rheumatic heart disease. My sister had heart damage associated with a congenital heart defect. She was one of the first persons in February 1942, to be treated with penicillin for subacute bacterial endocarditis, a frequent complication of rheumatic heart disease. Allotments of penicillin were released from the Army for her SBE. She was operated on in the early '60s at Hahnemann Hospital in Philadelphia for her congenital defect. My mother lost a lot of energy in her '50s and '60s and died in July 9, 1960, just about a week after I left NY for NIH in Bethesda, Md.

My parents loved to play bridge and entertain; they played duplicate bridge and came in first in one of the Bergen County tournaments in the '40s. My mother's Alfred College group met to play bridge in the '30s and early '40s before we moved to Park Ridge. They would have at least two or three tables going of her Alfred (married) couples or local friends who enjoyed contract bridge. My mother was truly loved by all her friends, as she was completely non-judgmental and was, in the true sense of the word, a Christian who literally turned the other cheek. She was never confrontational, like my father. My father could not have survived without her; he was devastated by her death in 1960. She made four predictions to me about him just a month before she died and they all came true. She predicted he would be totally lost without her; he would turn on me (I was the whipping boy who did not follow in his footsteps) [laughter]; he would remarry; and that he would disinherit me. He did all four things, so clearly she knew my father like a book. He was very insecure, and my sister, I think, took after him in many ways, while I

tend to take after my mother. Very much can you say that behavior, as well as physical attributes of an individual, are inherited. I learned to work hard and keep my mouth shut [laughter], be as polite and courteous as you can and avoid emotional responses or confrontation. And that has paid off in many ways over the years, when I've stopped to think about it. Whenever anyone came into the room I was taught that I must stand up and greet them to show respect for your elders (a very Victorian value). I did that in High School for my home room (art) teacher, Miss Robbins, when she approached my desk to speak to me. This surprised her, and she said I did not need to stand up by my desk. That was the kind of strict discipline that the Victorian influence had on my father that he imposed on me. I did it again in Washington, D.C. when I was interviewed at the Department of Health Education and Welfare for an assignment in the Public Health Service. I met with a Dr. Leland Weyer, the chief dental officer for Hospital Dentistry. He had a very small, cramped office, about half the size of this room, with room only for his desk and chair and a side chair by his desk that I sat in. I must have made a favorable impression as he went to get the medical director for the hospital division, a Dr. Shaw. This was in 1955, before graduating from Columbia, which I did that year. I stood up when he came into the doorway, and there was hardly any room in which to stand. It was a matter of discipline and respect and recognition of someone of importance in your life, but those characteristics have died [laughter] totally today, and you don't expect any of that kind of respect anymore. We have lost good taste and respect for others.

SI: You mentioned that your mother was heavily involved with the church through her music.

HA: Yes.

SI: She would take you along with her, but were there other ways that your exposure to the church shaped you?

HA: Well, clearly my attendance at Sunday school (and my father was absolutely insistent that I must go to Sunday school). He stayed home and prepared the Sunday meal because my mother was the church organist, and my sister and I had to attend Sunday school and later on church. As I indicated, my sister had cardiovascular problems which became serious while she was at Glassboro. She had to be hospitalized at Hackensack Hospital which must have been scary for her and she may have feared for her life and living long. She met an Irish Catholic veteran studying accounting at Temple University at a Glassboro social and dance. His name was Joseph Huckel, and he had wanted to become a priest. My father was bitterly anti-Catholic. My mother was not anti-Catholic at all, and like a genuine Christian, she was totally non-judgmental. My father thoroughly disapproved of this relationship which got serious when my sister set out to do practice teaching and left home. My father had been severely sensitized to Roman Catholicism and the authoritarianism that it stood for. There must have been terrible religious conflict in his family (a Catholic mother and Anglo-Catholic father), as she was known to be very irascible. Unfortunately, two years after his father died, his mother took her own life by sitting in front of the kitchen gas jets in the Lenox Avenue apartment, in what is Harlem today. This was in 1926, but my father would never talk about it; I have this only on my mother's word. It obviously was a terribly brutal episode in his life, along with being thrown out onto the street by her and having to find work to support himself. He would not talk about his family and did not want my mother talking about her family; he had lost all sense of family values altogether. He got into the Wall

Street banking and brokerage businesses which he loved, as he was a math whiz, and this became his life. It wasn't until he went out on his own and I came along that everything went sour [laughter], but my mother held him and the family together and became his "only family." Yet, her brother, my uncle Edward, was another remarkable self-made man who, from only a Yonkers High School education, ended up as a US Coast Guard Captain when he retired in the 1950s. That was a period of many self-made men and a smaller elitist group of well-educated scions of wealth. He served in the Navy during the First World War as a lowly enlisted man, known as a "gob" or "swabbie" on board a battleship anchored in New York harbor. He loved the ocean, sea life and travel, so he went to work on the tug boats after the war, and was encouraged to take mariner's course work and exams. He eventually became a master mariner and later a Captain with the US Lines and then the Coast Guard. I wonder how much of this was the inherited educational characteristics of the Richmond-Chipman-Saunders family; it intrigues me that they had this interest in self-improvement, education and learning in those times. Did this reflect the innovative mentality of the country at that time which seemed to flourish in that *laissez-faire* period? My father respected education, but was irritated by their high minded haughtiness. He was more dogmatic and I can't help but believe that was more of a Roman Catholic 'virtue', whereas my mother reflected a more respectful, tutored, as she would say, and questioning mind. My uncle, her brother, ended up as serving as Captain on the SS *Manhattan* and the SS *Washington* of the US Lines. Have you ever heard of "Wrong Way Corrigan"? [Editor's Note: "Wrong Way Corrigan" was an aviator who flew from Brooklyn, New York, to Ireland non-stop, despite his flight plan instructing him to fly to Long Beach, California. It is suspected this "mistake" was intentional in order to achieve a transatlantic flight despite being denied permission.]

SI: No

HA: "Wrong Way Corrigan" did it as a publicity stunt. He was going to fly to California, but instead, he did a 'Lindbergh wannabe' [Charles Lindbergh, the famous aviator who made the first non-stop transatlantic flight from New York to Paris in 1929], and he flew instead to Ireland. When he returned to this country on board the SS *Washington*, the US Lines photographer took a photo of my uncle in his uniform as Captain on the bridge with Corrigan standing behind the compass. Corrigan was pointing in one direction and my uncle was pointing in the opposite direction; the photo made the front page of the *Herald Tribune* in August 1938. I have photos of my uncle as Captain with Ambassador Joe Kennedy on the bridge along with other notables (actors, actresses) dining with him at the Captain's table. He too saw the war coming, and he told me before he passed away that the SS *Washington* and the SS *Manhattan*, sister ships of the US Lines, were actually built in the '30s primarily for speed and in anticipation of being troop transports for the war that people saw coming (Churchill's "*Gathering Storm*"). They could easily outrace the *Queen Mary* and the *Queen Elizabeth* luxury liners of the British.

SI: Was this the ship that became the *West Point*?

HA: I don't know. No, I think they were both scrapped after the war with the advent of transatlantic flights. [Editor's Note: The United States Lines built the SS *Manhattan* in 1932, the first passenger liner actually built for the company, followed by the SS *Washington* in 1933.

During the war, the SS *Manhattan* became the troopship USS *Wakefield* (AP-210) and the SS *Washington* became the USS *Mount Vernon* (AP-22). Both ships were scrapped in 1965.]

SI: They were both scrapped.

HA: Yes, I remember the fire on the *Normandie*, the French luxury liner that came into New York harbor at the outbreak of war. It capsized or tipped over on its side from the water poured into it to fight the fire. [Editor's Note: The SS *Normandie*, a French ocean liner seized by the US government in World War II, caught fire and sank in New York Harbor while being converted into a troopship in February 1942. She was salvaged and scrapped in 1946.] My uncle (Captain Edward A. Richmond) had shipped out of Boston on the SS *Quaker City* of the US Presidents Line in late November, 1941. It was the largest Merchant Marine ship they had. He knew, as everyone did, that war was imminent and something would happen but just when, where and how no one knew. Churchill certainly wanted us in the war, and slept the soundest he ever had after December 7, 1941. My uncle shipped out knowing well he could be torpedoed. He had been in typhoons where he stood on the walls of the bridge cabin of the *Leviathan*, which was a reparations ship from the First World War, I think the *Bismarck*. [Editor's Note: The SS *Leviathan* was originally the SS *Vaterland*, a German ocean liner, which was seized by the US in 1917, and converted to a troopship. After World War I, it became a cargo ship.] I checked out the records on the *Quaker City* at the US Merchant Marine Academy. He had put his men through many drills he told me. He had previously led the rescue efforts that saved all the passengers on the Italian liner *Florio* when it went down in the South Atlantic. He received a medal from the Italian government for this. He was extremely safety conscious, and he knew the ship's abilities at sea and the treachery of storms at sea. So he made his men (merchant marine sailors) drill day and night in the worst weather; they were ready to mutiny and kill him with all the drills. He also had had the davits arranged so they were on both sides of the aft of the ship, in case the ship listed to one side. This was not a requirement in the Merchant Marine, but his naval service had shown him the necessity of being able to launch life boats from both sides. On his return from Basra in Bessarabia in the Persian Gulf, where they had picked up manganese ore for the steel industry, he stopped off at Durban, South Africa, against his desires and better judgment, because he knew German spies were there. He was fearful the men might mutiny as they were fed up with the safety drills. He stopped and let the men off swearing them to silence about where they were going. Well, they went to the bars where they were loaded with spies, and as they said then, "Loose lips sink ships." He was torpedoed in calm seas in the early morning during shifts, on May 18, 1942, some four hundred miles due east of Barbados. Ten men, mostly in the engine room, were killed outright. The men were in their lifeboats in just minutes, while my uncle was awakened by the explosions. He had everything in place, put his shoes on then his uniform on (he had removed his stripes because he had heard radio reports of officers being taken hostage), and by the time he got to the bridge, all the men were in the lifeboats. The ship was listing and going down fast. They yelled to him to grab the fall lines, and he grabbed one and jumped into the ocean, but he got tangled in the fall lines and was pulled down into the water as the ship sank quickly (in around five minutes) [laughter]. There were four lifeboats loaded with the survivors, and the sub rose out of the water. The sub Captain emerged from the conning tower and asked, in flawless English, for Captain Richmond. He was most polite and very urbane and said something about it being a sorry sight and then detailed where they had been, what they were carrying and where they were headed; the South African

spies were very efficient. There was a cat floating on a cushion the men picked up. The U-boat Captain asked if there was anything my uncle needed. My uncle replied that he had lost his good sextant when the ship went down, but he had his spare (less reliable) sextant on the lifeboat. "Could he get a bearing?" The U-boat [German submarine] captain gave him a reading and asked, "Is there anything you need, like a deck of cards?" [laughter] He then submerged; my uncle later heard the sub had been sunk in the southern Caribbean. Two lifeboats got separated from my uncle, but he sailed his two boats to Barbados, arriving in about two weeks. The other boats arrived at Barbados later saving all the surviving men. This was unheard of at the time, as ships were going down with all hands. When the Coast Guard heard about this, they flew him to Washington to testify, as there were few survivors from these torpedoed ships. He told them what he had done and his safety precautions and drills. They gave him a commission as a Commander in the US Coast Guard, and assigned him to merchant marine safety in the Bureau of Marine Inspection. He wrote a safety manual for the Merchant Marine and Coast Guard. He then spent his remaining career doing inspections on public waterways (ferries, etc.) in this country. He would go on board ferries, present his badge and ask for the Captain. He would then order a safety drill. This kind of safety inspection is one of the reasons you do not see terrible tragedies on our open waterways in this country but more often occur in other countries, like on the Yangtze River or other waterways around the world.

There was something in the Richmond heritage that my mother and her brother demonstrated which I believe stems from their moral, caring and highly ethical Baptist upbringing. You might say it was "the inquiring mind wants to know" approach to life [laughter] and that education and self-improvement were at the center of this morality. Education was what my mother wanted her children to have, so that is why I ended up at Rutgers night school. I was only number fifty-four out of a class of about 250 or so from Dwight Morrow High School in Englewood, NJ, in 1946. Had it not been for the Morrill Act and Rutgers immediate response to its obligation as a state university suddenly thrust upon it, I might not have had an opportunity for an education. I suddenly was competing with all the millions of veterans coming out of uniform and flooding the universities with their 52/20 benefits. [Editor's Note: The GI Bill included a "52/20" clause, which provided twenty dollars a week for fifty-two weeks to discharged servicemen while they looked for work.] [laughter] My father was not intrigued by the thought of my getting a college education, but my mother thought it was important, and so, I applied to about fifteen different small colleges and was rejected by every one. [laughter] I wanted to go to a small to medium sized college like Williams, Wesleyan, Amherst, Hamilton, Colgate and on down the list, but I was not accepted at any. I actually must admit I wanted Princeton first of all. Perhaps, I was not a guaranteed payer, maybe, I don't know, but I certainly wasn't the bright number they expected. So, I went to Rutgers (University College Extension) at night for two years at the same high school I had previously attended for three years, Dwight Morrow H. S. in Englewood. That is where I encountered the "Western Civilization" course that had a great impact on my thinking. I enjoyed Burn's textbook on "*Western Civilization*" very much and still have that first edition. I took two years of French, Western Civilization, American history in the second year, economics, psychology, college algebra, etc. There was a 2-volume paper back on general philosophy of ideas of civilization which summarized many historical thoughts that was by Mark Mortimer Heald in the Department of History. Have you ever heard of him?

SI: Yes.

HA: He wrote some manuals that were sort of comprehensive overviews of civilization, rather dis-coordinated, but had some interesting ideas. I still have those paperback manuals somewhere. [laughter] I could give you some of that stuff (books) if the University had any interest in it at all.

SI: They probably have those works down in the [University] Archives.

HA: In their archives, yes.

SI: I wanted to ask, you mentioned that your sister met an Irish Catholic and your father did not approve of him.

HA: Oh, yes. Well, she was engaged to, and eventually married Joseph Huckel, who had gone to St. Joseph's College in Philadelphia. He was an accountant who benefitted from the GI Bill, and a very ardent Roman Catholic. Of course, my sister had to convert, and my father was enraged by this arrogance of the Roman Catholic Church. She and Joe came up once to visit me at Rutgers, from south Jersey where they were living, Blackwood, I believe. We conversed at length about our irascible father and his anti-Catholic feelings. At that time, there was a book by Paul Blanshard called *American Freedom and Catholic Power* [1949]. Little did I know, I had bought the book because I was intrigued by this problem in Christianity and the schism, and I didn't have money for anything, but I did enjoy reading this book because it raised a question to me about the Roman Catholic Church. This was just at the time that Rutgers was taken over by the state and became designated the State university. There was a big to-do, particularly among the Catholics, about the teachings at this university, and they didn't particularly like Burns' book, Edward McNall Burns, *Western Civilization*, [*Western Civilization: Their History and Their Culture* by Edward McNall Burns]. I had a patient at Stony Brook when I was teaching there, a Dr. Clelland, who was a history professor who was about to retire. It was during the bicentennial of the Federalist Papers paper and the writing of the US Constitution; it must have been in 1987. He told me he was familiar with Burn's book and in fact had used it in his course. He sent me his teacher's desk copy (a two-volume paperback of the seventh edition), edited by [Philip Lee] Ralph. His work was a very objective historical record. I'm so fearful today that we're getting politically correct types of records of history being made, and that is one of the reasons I thought I would come and talk to you. [laughter] Those of us who lived through this period understood the challenges that were coming from different groups in '46 or '45, when Rutgers was designated the state university. [Editor's Note: Rutgers was officially designated the State University of New Jersey in 1945.] The Roman Catholic Church was very reticent about this association. They wanted all separation of Protestant church influence from the State University. I think there was a change in the balance of the Board of Trustees (or whatever governing body was in control at that time). I did not pay that much attention to it at that time. The intent was to serve the whole state as a state university that was representative of everybody, rather than just a Dutch Reformed background. It was a terribly interesting period, a challenging period, because of all the GI's who were here on campus. Temporary Quonset huts were set up for labs, seminar rooms and married student housing while two airplane hangars, originally destined for Russia, were set up, one for a library/study hall and the other for the commons. I heard the story about the University of Illinois where they set up the first semester of the first year for the GI's, knowing many were not college material, to end at the Winter break, so that they could send

mass notices out to not return. Notices were "Don't bother coming back; all "F's" won't do it." [laughter] The universities were happy to have all the government 'largesse', however. I had an ability to learn and to listen and to retain a fair amount. That sort of saved me, because I didn't have much time to study, since I had lots of labs to take and I was working as "bottle washer" in New Jersey Hall, on the second floor in the Botany Department. That's where I met two more influential teachers, besides Dr. Mason Gross, and that was Dr. Murray Fife Buell, who was Professor of Botany, although Dr. Marion Johnson was chairman of the department at that time, and the other was Dr. Buell's graduate student, William Albert Niering. I knew him as Bill Niering, as I assisted him one summer when he was doing his PhD thesis on High Point State Park and the highlands ecological structure of that area (Stokes State Forest and High Point State Forest). Dr. Buell was secretary of the Ecological Society of America and had come up from North Carolina. He mentioned once that his salary was so low there that he did not pay any income tax. He was a field botanist beyond all doubt. He was a terrible lecturer, and he would face the blackboard and mumble and nobody knew what he was saying [laughter], but he was a brilliant, though taciturn Quaker-type, who was a very quiet, mild-mannered person. He would ask some of the most cogent questions, anticipating your answer and knowing how you were thinking, and then correcting your thinking. He knew plants and plant communities. He and his wife, Helen, were field botanists who knew plant and animal communities, but plant communities in particular and used to supplement their food directly from their field work. He came from the University of North Carolina, as I stated, and had never paid an income tax until he came to Rutgers, as they were paying good salaries at Rutgers at that time, which may have been necessitated by the sudden expansion of Rutgers after the war. Bill Niering was a graduate student from Penn State who got his PhD with Dr. Buell, and at the time of his sudden death, Bill was professor of botany at the University of Connecticut at Storrs [the main campus of UConn] and the longest-tenured professor there. He wrote over three hundred papers and was a specialist in wetlands ecology. He also wrote the Audubon guides on wetland vegetation as well as flowers and trees of Northeastern United States. He was a brilliant and very hard working researcher. [Editor's Note: Dr. Niering authored *Wetlands (Audubon Society Nature Guides)*.] He and I used to sing in the choir here at the Second Reformed Church, [laughter] which is one of the places I knew him from. But ecology was very strong here at the time. Dr. Buell was influential in having all engineers take a field course in ecology so they understood the possible implications of their work. He was also influential in getting this Hutcheson Memorial Forest preserved. Hutcheson, I believe, was head of the carpenters' union who helped finance the purchase of the forest and hold on to this precious resource of virgin forest that was in the Mettler Family and worth quite a bit of money, just the real estate alone. They had it well documented that it had never been cut over or farmed. [Editor's Note: William L. Hutcheson led the United Brotherhood of Carpenters and Joiners of America from 1915 to 1952. The William L. Hutcheson Memorial Forest was established in Franklin Township, New Jersey, in 1955, and left in the care of Rutgers University and the Nature Conservancy, currently under Director, Dr. Peter J. Morin of the Rutgers Ecology, Evolution & Natural Resource Department.] So, this became a teaching lab for the plant ecology course. I hope to meet with Dr. Peter Morin, in Cook College to talk to him about this, because I have been funding some of the research and maintenance there. Where do we go from here?

SI: Let me pause.

[TAPE PAUSED]

SI: Let me put the recorder back on. We were talking a little bit about your beliefs in education and your influences.

HA: Yes. …

SI: I do want to ask about your education in Englewood and the Oradell area. Did you have an interest in science early on?

HA: Yes, I had a great junior high school science teacher, Mr. Gordon, in the eighth grade. He was a very nice guy, and that was just at the beginning of the war. It was 1941, I believe, and I developed an interest in science, especially meteorology and microscopy. For my 11th or 12th birthday I was given a small, monocular microscope which my father probably bought at Goldsmith's, a large stationery store on Nassau Street near Wall St. It had over a 100 magnification but was not a sophisticated scope. I loved it and tried to examine all kind of things, including onion skin, leaves and insects. I also tried to take photographs using a Kodak box camera. When I went to Dwight Morrow High School in Englewood, I had a biology teacher the first year, Mr. Sparrow, and he was utterly uninspiring. [laughter] It's a wonder he didn't kill my interest entirely, but the next year I had physics and the following year chemistry. They weren't anything near as sophisticated as the course work at Rutgers. I did not take AP [advanced placement] courses, as I don't think they had AP courses back then, in '45 or '46. I pursued my interests in biology by reading Paul DeKruif's *Microbe Hunters* and other books on biology, and recall well the movie, *Dr. Ehrlich's Magic Bullet* with Edward G. Robinson, where Ehrlich developed arsphenamine to treat syphilis and sought to find drugs to treat diphtheria. Maybe it was the gardening I was doing, my interest in plants, flowers and vegetables, and agriculture in general, especially during the war, that had an influence on me. I wasn't interested in animals as much as plants, and had considered then in becoming a botanist. But I had a practical bent that came from listening to my father, as I had to listen to him. He would not tolerate "idle prattle," as he used to call it. We had to listen to him at the dinner table when he talked about his work in Wall St. and investments. I also read several books in junior high school, including Fairfield Osborn's, *Our Plundered Planet*. Osborn was head of the American Museum of Natural History and a contemporary of Teddy Roosevelt. The book looked at the future and especially world population growth and predicted, by the end of the century in 2000, (when I would be 71), the exhaustion of all the world's copper supply and other precious resources including almost complete exhaustion of the oil supply. The world would be drying up for essential resources, and all we would have would be coal to heat our homes with and use for energy and manufacturing. [Editor's Note: Henry Fairfield Osborn, Sr., was head of the American Museum of Natural History. His son, Osborn, Jr., wrote *Our Plundered Planet* in 1948.] I had an overwhelming interest in medicine and biology, and then when I got to Rutgers and heard that Dr. Waksman had been recognized for his stunning work on antibiotics which so influenced Fleming in his discovery of penicillin, I realized this was the place to be. [Editor's Note; Dr. Selman Waksman was a microbiologist whose research led to the discovery of streptomycin and who coined the term "antibiotics." Alexander Fleming initially discovered penicillin in 1928, and Howard Florey, Ernst Boris Chain and Norman Heatly, a group of Oxford researchers, developed it into an effective medicine in the early 1940s.] I took biology which

was a collaborative course between botany, zoology and, I guess bacteriology. The lecturers included Dr. Alan Boyden who was a serologist here and taught genetics. Rutgers was one of the first universities to have a separate department of zoology and a separate department of botany, according to Dr. Thurlow C. Nelson, head of Zoology. Many of them, including Julius Nelson, his son, T. C. Nelson and Selman Waksman, had earned their PhD degrees at Wisconsin. [Editor's Note: Julius Nelson earned his bachelor's and master's degree from Wisconsin and his PhD from Johns Hopkins. His son, Thurlow Nelson, earned his PhD degree from Wisconsin. Waksman earned his PhD in biochemistry at the University of California, Berkeley.] Thurlow Nelson was head of Zoology when I was here. He was a noted malacologist, and all of the lecturers stimulated my interest in all aspects of biology. T.C. Nelson was influential in the development of the marine biological research station at Toms River. I remember him saying that for all the work that Rutgers had done in developing the tomato industry in this state and helping with research for the Campbell Soup Company, the company never gave a dime to the university or helped out in any way. It was also Dr. George Cook of the NJ Agricultural Experimental Station, for whom Cook College was named, who pointed out to the fisherman in Atlantic City that they did not need to bring their drinking water over to the sandbar from the mainland; all they needed to do is drill down into the sandbar where there was plenty of fresh water. That was the real beginning of Atlantic City. Cook also was one of the first to point out that by eliminating cows infected with tuberculosis (that is, the reservoir for TB), tuberculosis could actually be brought under control much more efficiently; this public health measure was a monumental step forward in eliminating most of the TB cases. People don't realize how influential these observations were by these early investigators. They were really great researchers, lecturers and teachers. One of my favorite ones was Mel Carriker; he was a great researcher in marine biology.

SI: He passed away in the last few years.

HA: Oh, did he? I did not know that. He came down to the National Institute of Dental Research in Bethesda when I was there and talked about his work on the boring Toredo worm in the hard shell of clams. We had a wonderful, one week-for one credit, field course in field ecology that was very stimulating which I took each year for three years. It was held in three different sites: the coastal plain, the mid state area of marls and bogs, and the hard wood highlands. Most of my grades were "B's" except for the "A's" in these field courses run by Drs. Buell, Carriker and Wolf (a geologist). Considering my grades, I have to wonder how I made it as far as I did. [laughter] I've had some guardian angels over my head, I know, but I thrived on the biology courses here. I took "Animal Parasites" with Dr. Leslie Stauber, "Comparative Anatomy" with Dr. Gomeroy, (I forgot his first name) "Botany" and Plant Ecology" with Dr. Buell, etc. Indeed, I've forgotten all the courses I took. I loved the field work, but I could not take these courses until I got onto the main campus after the first two years of liberal arts courses that I took in University College at night. So I had quite a few credits by the time I graduated. When I did get onto the main campus everyone was signing up for the philosophy course given by Dr. Mason Gross. Somebody mentioned it was a superb course, and I said "Alright, I'll take philosophy." Well, it was one of the most stimulating courses I took here. Dr. Mason Gross gave all the lectures, and they were scintillating and fascinating, taking us from Aristotle to Kant. It was given in the second floor auditorium in what was then the engineering building where Dr. Elmer Eaton was the head of engineering on the Neilson Campus [Voorhees Mall]. I think it is

the large education building now. [Editor's Note: Dr. Elmer Easton was the head of the School of Engineering at this time.] One building was chemistry, and then the next one on the mall was engineering and after that the Ballantine Library, as I recall. I believe it could have been named for the beer company in Newark at that time, if memory serves me. It, like Rheingold beer (of Miss Rheingold fame), are no longer in business.

SI: Was Murray Hall the engineering building?

HA: Not that I recall. Murray, Thomas Jefferson Murray, was head of bacteriology when I was here, and he and Dr. John Anderson ran bacteriology, as I recall, on the top (third) floor of New Jersey Hall. The second floor was zoology on the front half and botany on the rear half, and the first floor was half underground. This basement area was where the biology laboratories were held because none of the buildings on University Heights (as it was known then, now called the Busch campus) were yet built. Only the Wright School of Chemistry was up on the Heights along with the chemistry labs which were housed in temporary Quonset huts [prefabricated, hemispherical, steel huts used as airplane hangars, barracks and so on, in World War II.] Quonset huts were also used for married student housing. The Heights is where I took qualitative and quantitative analysis labs, so we had to bus over to the Heights for our chem labs which were three afternoons a week from 1 to 5 or 6 pm. The organic chemistry lab was held in the basement of the old chemistry building on the Neilson Campus; I do not recall where the chem labs were held during the summer I took general chemistry, but they probably were also in the basement of the old chemistry building. There were also "recitation" Quonset huts along George St. across from the Neilson Campus. I have often wondered about the aromatic carcinogenic chemicals that must have permeated the old basement walls of that old chem building. Quant. and Qual. Analysis courses were under the direction of Dr. William Rieman, for whom the Wright-Reiman Lab was named, and he wrote the McGraw-Hill textbook on Quantitative Analysis which was widely used. He was one of the earliest developers of quantitative micro-chemistry, I believe. Dr. Peter Van Der Meullen was the head of the School of Chemistry at that time. [Editor's Note: William Reiman was (later) Director of the School of Chemistry and later recipient of the Distinguished Research Award of the Rutgers University Research Council.] I was good at the lab, but not good at the theory, [laughter]. Then we had Dr. Barnes ("Smiley Barnes," as we called him, because he always had a smile). He taught organic chemistry and was absolutely brilliant (perhaps the reason he always smiled). He could write formulas of organic equations faster, on the vertical sliding blackboards that went up and down, than we students could copy them down in our notes. The students would moan when he went to erase the board so as to write more equations on the board. [laughter] The lab teachers would give short quizzes in the organic labs, and the grades averaged about 20 to 40! Even the grad students taking organic chem complained! I vividly recall the toxic benzene smells that reeked throughout the whole building. I'm sure most of the professors must have died of cancer, as there are probably more carcinogens left in the basement, where we had our organic chemistry labs, than in any other part of the campus. [laughter] I was totally uninspired by the physics course held in the building opposite the chem building. That was one course I failed; I could not, and would not, do the daily problem sets. I had no interest in physics, even if the atomic bomb probably had saved my life! I had to repeat the second half of physics in Newark-Rutgers over the summer of 1951, just before entering Columbia's School of Dental and Oral Surgery. I think

now I have filled in all the stuff I can recall up to the time I finished Rutgers and went on to Columbia.

SI: We did not talk too much about the World War II era. You mentioned Pearl Harbor.

HA: Yes, well, they were austere times. I was 12 in 1941, and in the Boy Scouts. We went around collecting newspapers and cardboard, iron, metals of all kinds, and anything that could be used for the war effort, including, would you believe it? fat. We used to save fat in cans and take it to the butcher, and that was used to make nitroglycerin and gun powder. Everybody had Victory gardens and grew their own (Rutgers) tomatoes. I wanted a bike like the other boys had (just before the war in the 1940-41 period). I was eleven, I think, and was told by my father that he would give me an allowance if I did various chores (take care of the chickens, work in the garden, mow the grass (with a hand-push reel mower, as no power mowers existed), help around the house and help my mother). Do this and, well, I could save up the money for a bike. I had a pottery piggy bank in my bedroom, and I'd put the nickels, dimes and quarters in it, My allowance was, I believe, twenty five cents a week, while the minimum wage at that time was, I believe, thirty-five cents an hour. I ended up saving about twenty-five dollars, and we went to the basement of the Sears-Roebuck store in Hackensack where they had the bikes. I was naive about bicycles, but they had bicycles with balloon tires, at that time, which were relatively new and, you know, had a softer ride. My father encouraged me to get an Elgin bike with balloon tires and two Bermuda baskets on the back over the rear tire, not just a small handlebar basket in the front. Well, I realized later, my father, sensing the war coming on and the likelihood of gas rationing, they would need to use bikes more and I could be a delivery boy for the family. That was the fashionable thing to do, that is, run errands for your mother and father. With the war outbreak, the first things to be rationed were rubber tires and gasoline. People did ride bikes rather than drive because of gas rationing. We had an "A" sticker on our car rear window, indicating we could only have the minimum amount of gas for our 1938 four-door Ford car. So, my father had to sell the summer house in Highland Lakes that he had recently built, because we could not get enough gas to get to the house up in Sussex County (from Bergen County). He also might have wanted to use the money to further his investment portfolio during the war. I ended up doing delivery work: delivering eggs to neighbors, performing errands, going to the store, etc. [laughter] My father tossed in about five dollars so I could get the bike. I began to wise up to my father a little bit after I realized, in a few weeks or so, he rather liked the bike himself and thought they needed a bike for my mother to use so they could both ride around town. So, he went out and bought a bike (another Elgin, but girls bike) for my sister, who already had one [laughter.] My father would never talk about money that he had or what he did with it (at least in front of me), nor would he provide any money in particular for me. This was, I believe, because he had been given nothing and had to work for every penny he ever had. He wanted me to face adversity and not be brought up with a silver spoon in my mouth. [laughter] I found myself frequently without my bike because they were out riding together and visiting with friends and neighbors. [laughter] But, I was handy to have around to go to the grocery store and pick up bread or staples, things of that nature. I recall the grocer wrote the price of things on the paper bag and totaled them up; that was your receipt in those days! My mother started cooking with basic staples of flour, sugar, butter, cream and milk. That was the basis for pastry, and she did everything from scratch. That was before frozen foods were available, and before Birdseye frozen foods became popular just after the war. Clarence Birdseye was a pioneer who

popularized the frozen food industry. Just before the war broke out, my father bought a second - hand Norge refrigerator that also had a small freezer compartment. It was so large it barely fit in the kitchen. This replaced an old wooden "ice box" that had three wood doors that closed with latch handles, and had one compartment at the top that took a large block of ice. Food often went bad, and milk frequently soured in it.

SI: An icebox.

HA: An icebox, literally an insulated ice box that we had had for as long as I can remember before the war. My father saw the war coming, and he was a master of the deal, manipulating other people and getting as much out of them as he could. I was never that "street smart" in doing deals. He was street smart, strictly in the sense of New York City "street smarts," with, you know, enough of the tough Irish influence. He was definitely "fighting Irish"; he survived and did very well as a consequence, well enough to leave my sister $125,000, I understand. He essentially disinherited me with just a $500 bequest. That is what I got for not being obsequious to his ego defects and following in his footsteps into the precarious brokerage industry. But he was its poorest salesman ever, as he worried where Wall St. was going and how it would all end, especially during the "Red Scare." One of his clients was Charlie Busch. Do you know who Charlie Busch was?

SI: No.

HA: Well when you go over to the Busch Campus, it's named for Charlie Busch and his mother, Josephine.

SI: Okay.

HA: I wrote a letter to President Bloustein [of Rutgers University from 1971 to 1989] after my father died in 1968. He came down to Washington, D.C. to a Rutgers Club of Washington meeting when I was in Bethesda, MD, and I explained some of the background I knew about Busch. Well Charlie Busch was a recluse from Hoboken, NJ, or Edgewater. He was one of the early "Plungers and the Peacocks" (the title of the book by Dana Lee Thomas) or "go-go boys" on Wall Street who speculated in stocks, in the '30s and '40s. He was referred to my father by Mr. Harry France who was a syndicated columnist for King Features and had an office at Shearson-Hammill.

SI: King Features.

HA: Yes, he, Harry France, was a very intelligent money advisor and worked at Shearson Hammill & Co. at the time, later to be taken over by American Express. So many of these companies have merged or gone out of business. Busch was an eccentric who spent a lot of time in my father's office, driving him crazy, using the phones, getting copies of anything and everything related to research on many companies. My father had to put up with him as he meant a lot of commissions, but I guess he struck up some sort of friendship with him as well. How my mother got involved I do not know, as I was in Alaska in the Public Health Service at the time, but Charlie Busch was entertained by my parents at their apartment at 160 Columbia

Heights, in Brooklyn Heights, overlooking Manhattan; they clearly knew him quite well. I never met the man as he was a very private, shy, recluse-type. At my mother's funeral in July 1960, I was told he was hiding behind the bushes at the cemetery and did not want to be seen or converse with others. He was a true recluse and very insecure, living in Edgewater, I believe. I wrote a letter to *Barron's Financial Weekly*, about 15 years ago, when they published some ambiguous comments by a stock advisor that could be misconstrued about the integrity of my father and Mr. Busch. I believe that my father was a thoroughly honest businessman. He once said that Busch "could fall into a pot and come out smelling like a rose" because he had this knack for finding undiscovered companies that would grow exponentially. He ended up leaving some ten million to the University here, partly because of his interest in my going here and the tales my mother related to him of the biological research going on at Rutgers, especially with Waksman's discovery of antibiotics like streptomycin and neomycin. He was apparently fascinated by biological research and its potential. I believe he visited with Dr. Allison of the Bureau of Biological Research here to learn about some of the research going on at Rutgers. He apparently was from a dysfunctional family and sought to leave his entire wealth to advance biological research, and chose to leave it to Rutgers. I would like to think his contact with my father and mother and my attendance at Rutgers may have had something to do with it. I understand that while it was in litigation by his family, it rose another three million in value. As you know, after every war there are great technical and scientific advances. The Civil War gave birth to the Surgeon General's Library, the fore-runner of the National Library of Medicine, and the Army Medical Museum evolved into the Armed Forces Institute of Pathology, where I had the privilege of spending two years while I was in training in the US Public Health Service. My mentor there was a Dr. John Cornyn, an Air Force Major who had trained in oral pathology. He was one of the most meticulous, moral and honest persons I have ever known. Dr. Cornyn was the father of the current junior Senator from Texas, Senator John Cornyn. I now live in Texas, my domicile being at 3811 West Pine Brook Way in Clear Lake City, a sub division of Houston, and zip code of 77059.

SI: Let me pause.

[TAPE PAUSED]

Sandra Stewart Holyoak: Should I turn this back on?

HA: Yes.

SH: Thank you. Let us continue.

HA: I graduated from Dwight Morrow High School in Englewood, NJ, in 1946, and as I told Shaun, I was not the most scintillating student. I think I was, like, fifty four out of about a class of 250.

SH: I think that is pretty good.

HA: I was in the science curriculum, and it was a fairly hard curriculum for that time. The best department was the English department, and that's where I more or less excelled. I had a

wonderful English teacher, Miss Dorothy Burr, who made us write essays. Everybody hated that, [laughter] but I sort of enjoyed it, and she disciplined me to write. My parents were fanatic about proper and correct English. That's what happens when you have an educated mother who is very polite, caring and thoughtful, and a father who aspired to finish the cross-word puzzle before anyone else. [laughter] That was *The Herald Tribune* cross-word puzzle, which was notoriously difficult in those days.

SH: Yes.

HA: When I applied for college, I was not accepted at any schools I wanted to go to, small colleges like Hamilton, Colgate, Wesleyan, Williams or Amherst; I've forgotten all the others. [laughter] The process of getting in was mostly filing an application that was essentially a two page form that required a short essay, in those days, instead of the detailed electronic confusion of today. [laughter] My daughter's going through that with her daughter right now, as my granddaughter wants to go to Texas A & M to become a veterinarian. I think she'll do it. But I owe so much really to my mother who had a college education at Alfred College and had been brought up in that old WASP-y intelligent, educated manner and work ethic. As I was telling Shaun, I think the most important person in the history of this country is someone who is not well known, and that is Justin Smith Morrill, Senator from Vermont, the longest-serving Senator in the nineteenth century U.S. Senate, and his Morrill act, which I first heard about from Dr. Mason Welch Gross, in his philosophy lectures. The first Morrill Act was signed by Abraham Lincoln in 1862, and provided for the land grant colleges, and then the second Morrill Act provided funding of the land grant colleges in 1890, I believe. Obviously, these old New Englanders believed in education. Indeed, I have lived through a phenomenal age of explosive world information and education. It is unbelievable to think of the marvels of going from making a hand written draft and putting everything on file cards to having computers that put it into the computer for editing, cutting and splicing and then instant reproduction as a typed out, completed manuscript. You cannot imagine the archaic, backward age when I sat in the bowels of the newly-built, National Library of Medicine on the NIH campus in Bethesda, MD. I was permitted to work in the basement stacks, which I don't believe anyone can do anymore, except I could not enter the historical division, which was fenced off from the other basement stacks. where I was working. I could actually search through the original English, American, German and French journals dating back to the 1800s, and read the original publications and see the original drawings and photographs. That day and age has been completely replaced by the much greater efficiencies of the computer, and I am thankful for it. I'm just sorry now that I'm not fifty years younger so I could appreciate it's efficiency more. [laughter] I will never forget the memories I have of that N.L.M. archive because I am basically a bibliophile. We stand on the shoulders of giants, particularly people who wrote and diagrammed things so fastidiously, such as the Germans in their Virchow's Archives of Pathology. I would get out the original articles by [Theodor] Billroth [an Austrian surgeon, the father of modern abdominal surgery], and see the fine line drawings in the foldout sheets of these original articles. There was no mistaking what they were demonstrating with their camera lucida drawings and the precision with which they wrote. I had to take German in order to read some of this work in order to understand it. Fortunately, there were many "gleichworten" or recognizable cognates. You know scientific literature is that way.

I had the opportunity during the war to know adversity, and, as I was telling Shawn, we raised much of our own food during the war in Victory gardens. I was in the Boy Scouts and collected metal, paper, etc., and as I was telling him, we collected fat, as we had an abundance of fat from the chickens we raised. My mother would make pastry out of chicken fat, and it was delicious, [laughter] and cholesterol was never a consideration. I'm sure cholesterol is all over me because of it. It was a period of austerity, and it was when the country was entirely united to defeat the Bosch (Germans) and the Japs with no-holds-barred. I mentioned before that if it hadn't been for Leo Szilard convincing Albert Einstein to write a letter to President Roosevelt that we had this power to make nuclear weapons, I probably would have been dust on the shores of Japan. Had it not been for the Manhattan Project undertaken in 1940-42, I probably would not be here. With the anticipated invasion of Japan, they anticipated that over a million could have died. I graduated from high school in 1946, and was planning to go into the Navy because that was part of my heritage, considering my uncle's service in the Navy, the Merchant Marine and the Coast Guard.

SH: How was the war perceived in high school then? What do you remember about that?

HA: We had posters on the wall with contributions made for buying war bond stamps to make "Buy A War Bond," and the bright red thermometer would grow, you know, as more contributions were made. There was a feeling of equality unlike anything, as everyone was united in the war effort, and there was great concern for the safety of the fighting troops, especially those with brothers or relatives at the front. A number of guys enlisted when they were in high school before they were to graduate. Now, admittedly, I went to a predominantly white high school, Dwight Morrow H.S. Well, Oradell Junior High School was "lily white, but in high school we had a lot of very nice black friends, you know, the sons of chauffeurs and servants for the Englewood affluent people who lived up on the hill. The affluent kids went to the Dwight School for Boys or Dwight School for Girls, the private schools, not the mundane public school. Dwight Morrow High School, I might mention, had an extraordinary campus modeled on the gothic Westminster Towers at Princeton and Wellesley.

SH: Really?

HA: You think you're on the campus of Wellesley or Princeton. It's a beautiful school and still is. I visited there about ten years or so ago. It had not changed. The war brought out the best in us, I believe. There is an observation by Jean Paul Sartre, that I learned when I took French. I know it best in French: "*Mais ne peut-on souhaiter que cette Republique de grande jour, qui va venir, conserve au soleil les auteres vertus de la Republique du Silence et de la nuit*?" This was from a collection of essays assembled by A.J. Liebling entitled "*La Republique du Silence*." Now I'll try to translate it. [laughter] Literally, it was: "But could we not wish that this Republic, in the great day that is going to come, preserve in the light of day, the austere virtues of the Republic of the Silence and of the Night?"

SH: Thank you.

HA: This book was the one we used in the second year French course in University College Extension. The instructor, Mr. Brigham, threw out the original textbook for the course, and used

this collection of essays about the French Resistance and the Maquis, during the occupation. It was a wonderful collection of fascinating stories about the resistance put together by A.J. Liebling, [*The Road Back to Paris*, a collection of correspondence from France, England and North Africa during World War II], who was at Columbia, a professor of romance languages, I believe. In there is the essay I quoted by Sartre. It describes the Maquis who did their nefarious work against the Germans in the silent stealth of night. I will say they had very good teachers in the Rutgers night school. Most of them were specialists in their field who were working towards an advanced degree or had taught the subject for some years in universities or high schools. I took a course which I think was the most important one and had a great influence on me, and that was the course on "Western Civilization" that used the first edition of Edward McNall Burns text of the same name. I still have the text and refer to it from time to time.

SH: Tell me about the night school you did.

HA: University College Extension, which was created by the University to reach out to working students, and probably was a 'buffer' that further extended to all students and veterans after the war, an affordable, quality education that was accessible to all throughout the state. It was expanded to absorb the "52/20" veterans who received (I thought it was fifty dollars, but I was corrected) twenty dollars a week for a year, which was a lot of money to me.

SH: We call it the 52/20 Club. They got twenty dollars a week for fifty-two weeks.

HA: I thought it was 52/50. It probably was 52/20; I need to be corrected on that.

SH: I am not sure, but we can check.

HA: Yes, and the veterans were getting their tuition free and all their books. We civilians (the non-GI's) had to pay for our own things. I almost went into the service instead of night school because the GI bill was still in effect when I graduated, but I thought if I did, I might lose the continuity with education. I loved learning and education and did not want to break the sequence. I wasn't a brilliant person, but I learned to listen and absorb as much as I could.

SH: Were you in University College?

HA: Yes, at Dwight Morrow, for two years.

SI: At Dwight Morrow.

HA: There were, I believe, five University College Extension programs set up around the state: Atlantic City, Trenton, Jersey City, Englewood, Paterson, and possibly Camden. They were to adsorb the GIs who, in many cases, were not certain what they wanted to achieve or what their goals were. Also, I believe, many needed to be near their home, and besides there was not enough space for them on the New Brunswick campus.

SH: You were still in high school.

HA: Well, I went to high school for five years, [laughter] three for high school - tenth, eleventh and twelfth grades, and two years of Rutgers night school at the same school, and I even sat in the same old desk sometimes. [laughter]

SH: Were you working during the day?

HA: Well, I was in a way. That's interesting because my father always wanted a farm and, after the war in 1946, we moved from Oradell to Park Ridge, about ten miles north of Oradell near Montvale and the NYS line where he bought a four-acre Victorian home with a small barn on it. I remember the address was 178 Pascack Road (formerly 60 North Main Street). I believe it has been replaced by two new homes. He raised four pigs, chickens, geese, ducks and even had a cow, which he milked and took care of, and I was his hired (unpaid) hand. [laughter] That's a whole separate story, but finally my mother had to guide him to the reality that this was not to be my future. This is while I was going to Rutgers at night as I was commuting from Park Ridge to Englewood, using two different buses. It was a long walk from the house to downtown Park Ridge, and I can still feel the freezing winds, standing on the corner by the bank building in Westwood waiting for the bus. [laughter] But the course work quickened my mind that there was more to education than high school, and there were all kinds of interesting things to learn and do. I used to love to pour through the Rutgers catalogs and read the course descriptions wondering what to take. "Oh that sounds interesting" I thought and there never were enough courses I could sign up for to take. I would love to have taken art history with Dr. Helmut von Erffa. I did take music appreciation with Dr. Howard McKinney. I passed a McKinney House downtown, which I assume was named for him, but the original building for music was the Tudor-framed house right here on the corner of Bishop Place and College Avenue.

SH: Really?

HA: Yes, in that lovely Tudor and brick home on the corner of College Avenue and Bishop Place. That was where Dr. McKinney, "Soup" Walters (the band director) and Dr. Sherman were located. I still have Dr. McKinney's textbook. I recall Dr. Sherman playing all the musical pieces at full force, so no one could talk or be heard. Dr. McKinney arranged for many famous orchestras and concert artists to perform in the University Gymnasium on College Avenue. I had a season ticket for at least one year. I assume the McKinney house downtown is the location of the music department now.

SH: Yes.

HA: Is that where they have the Music Department?

SH: I think it is part of the Music Department, where they hold concerts.

HA: Oh right. I recognized the name right away. He wrote a very fine book on music [*Music History: The Evolution of an Art*]. I still have that book, because my mother was a musician.

SH: Was she really?

HA: Yes, she was a church organist in the old Dutch Reformed Church in Oradell for almost fifteen years, and she supported the family. She held the family together while my father tried to hold on to his business, the brokerage company he opened at 25 Broad Street. She taught piano and organ as she was trained for (or as she said, "funneled into") the liturgy at Alfred College in upstate, NY, where her mother had graduated from in the late 1800s. Her mother taught school in Hopkinton, R.I.

SH: I thought I remembered you saying that and I wondered, since you said he wanted to be a farmer as well.

HA: Oh, my father was a very intelligent person who had "street smarts." He worked at the bank that Hetty Green's son, Colonel Ned Green, operated; it was the Seaboard National Bank, and my father quit when he came in a few minutes late one morning and the Colonel wanted to know why he was late, so, as my father said, he quit on the spot. Well, if he had stayed, he might have become a partner in, I don't know for sure what house he said, but it might have been Morgan Guaranty or Morgan Stanley. That is how small a knit network it was at that time in Wall Street. There's a book by, I think Stark or Slack, I've forgotten the author, entitled *Hetty*. It's all about Hetty Green, "the millionaire miser of Wall Street." She was seen on Wall Street in an unkempt and dirty black skirt and clothing, but she was a fast operator who could see a profit anywhere it occurred. She was as fast, if not faster, than J.P. Morgan, her contemporary financier. When she died, she left over a hundred million dollars (a vast fortune in those days) of stocks and real estate. My father, as I said, was in his own brokerage business, and he had a client named Charlie Busch, who bequeathed over ten million to Rutgers that provided the basis for the Busch Campus.

SH: Amazing.

HA: Yes, and I wrote Dr. Bloustein about it when I heard the he had left this money to Rutgers. One of the things my parents did was to look after and sort of entertain this recluse. I never met him but heard a good deal about him. He apparently enjoyed visiting with them and was fond of my mother. I know my mother told him about me going to Rutgers, and he was very interested in biological research. My father had wanted to be a doctor, but there was no money for this when he was growing up before the First World War period.

SH: I wanted to ask you about going to this night school that was set up for the overflow of veterans.

HA: Right, right.

SH: You had just recently graduated from high school.

HA: That was '46, and I had just graduated and went right away to college in September of '46.

SH: Was there any kind of difficulty?

HA: No, except we had just moved from Oradell to Park Ridge, and that was a longer distance for me to commute, yes, that was difficult.

SH: I was wondering about interacting with the veterans.

HA: I drove the car some of the time, got a ride with a classmate for some time, but many a time, I had to take busses from Englewood to Westwood and then to Park Ridge late at night, and that was tough in bad weather and in winter. Clearly, however, mot all the veterans going to night school at Rutgers, were expected, you know, to survive and continue through the four years, but I did complete it and got my degree after three more years at the New Brunswick campus. I applied after my first year, for housing on campus, but there was no housing available for me. The campus housing, I think, was primarily reserved for veterans. I'm going to meet Dick Frost, Class of 1952, and he was a vet who started in night school at Englewood with me. He was provided housing (I think in the Perth Amboy barracks that were used by the University for housing) after a short time that first year in night school at Englewood. So there was a real preference for veterans you know. Many of them were highly motivated, but many didn't have the ability or motivation to apply themselves. I had wondered if I had gone into the service I might also have lost a continuity and motivation to get educated and pursue a profession; I had in mind going into dentistry to work with my hands and eliminate commuting by having a practice in my own suburban home, possibly in Oradell. Anyway, I came down to the main campus in 1948. I took chemistry one summer, possibly in 1947, in order to get the sequence of three years of chemistry (the required three years for my minor in chemistry which was required in the pre-dental curriculum). I had a great lab assistant for the lab sessions, Mr. Beaumont. I remember we did not have air conditioning, so we held some sessions out on the grass in the shade. Professor Van Meter gave the lectures in that first building on Seminary Place by William The Silent. I think it is now the School of Education. The next building was Engineering where Dr. Easton was the head, and on the second floor there was an auditorium that I just discovered is no longer there. That was where Dr. Gross gave his lectures in philosophy to over one hundred or more students. He was an absolutely scintillating speaker and held everyone's attention; he had poise and extraordinary knowledge and lectured without notes using a lavalier microphone as he strode across the stage. I think that is what a classical Cambridge education does for you. My two favorite universities, *besides Rutgers*, are Cambridge and Oxford.

SH: [laughter] There you go!

HA: Rutgers, however, is more realistic I think, especially as a state university. I have been reading Jonathan Israel's work on the *Dutch Republic, 1477 to 1806, The Rise, Greatness and Fall of the Dutch Republic*, published by the Oxford University Press. History has always fascinated me, ever since my introduction to Burn's *Western Civilization*. I was trying to find out about the origin of "William-The-Silent" [a statue of William I, Prince of Orange, situated on Voorhees Mall on the Rutgers New Brunswick campus]. [Editor's Note: Dr. Archard is referring to Jonathan Israel's book, *The Dutch Republic: It's Rise, Greatness, and Fall, 1477-1806*.] Well everybody was named William then, William of Orange and William etc. back then it seems, and I am befuddled trying to wade through the 1200+ pages. I finally sold my home in Port Jefferson, Long Island, last year (after having it on the market for over six years) and had a major

operation for right common carotid occlusion in February of this year, 2011, so now I hope to have time to finish the book and learn more about "William-The-Silent."

SH: You will have to let us know.

HA: Yes, it's some 1220 pages and serious history. As a scientist, I love well documented history and especially history from the Oxford University Press, particularly about the Reformation period and what is called the "*Devotio Moderna*" movement. Oxford publishes very objective, well documented and annotated works with very thorough and complete bibliographies. I took my daughter and granddaughter recently on a tour of the Cotswolds in western Britain, an area referred to as "the sheep churches" where my Archard forbears came from in the 1830s, a place called Calne. They settled in Hastings-On-Hudson along the Hudson river. My mother's family predated him, as they came over on the *Mayflower*, [laughter], but anyway we toured Oxford and saw places around the "sheep churches," Bath, etc. I would love to have my granddaughter go to Oxford or Cambridge, but she has just been accepted at Texas A & M and wants to be a veterinarian. I have always had a very high admiration for the graduates of Cambridge, perhaps after having encountered Dr. Gross. I was always impressed by the Cavendish Laboratory and the tremendous discoveries and scientific findings that came out of that university. [Editor's Note: The Cavendish Laboratory is in the University of Cambridge's Department of Physics. It has produced twenty-six Nobel Prize winners.] Dr. Mason Gross was a classical example of that quality education; he was versed in the classics, history and science as well. As a side comment, I am reminded of Alison Weir's works on the first Queen Elizabeth, Henry the Eighth, and the wives and children of Henry, the Eighth. [Editor's Note: Dr. Archard is referring to Alison Weir's book, *The Six Wives of Henry VIII*.] She, Queen Elizabeth, spoke some seven languages and even interpreted for the ambassadors at her court. When they came to give her the ring of state at Hatfield after Mary Tudor died, she was reading The New Testament in the original Greek with her mentor and tutor, I believe it was Roger Ascham. Now, who reads anything in the original Greek, other than Greeks and scholars? [laughter] Education is so important, and I believe the British led the way with Oxford and Cambridge.

SH: When you came to take that chemistry course that summer, did you commute?

HA: No. I lived on campus, oh, I think it was Hegeman Hall (and I sweated it out without air conditioning!) I spent most of my time in Hegeman, for some reason or other, although the Quad consisted of Pell, Wessels and Leupp, all of which were newer and nicer. Of course, they were just putting up Demarest Hall when I was a student. I realized I needed a sequence of three years of chemistry which were not available in the night school so I was trying to cram in the chemistry in summer school. Well I got that in the summer of 1948, and then I could take qualitative and quantitative chemistry in the next year I was here on campus. The following year I took organic chemistry, but I loaded up with other course as well. There was a sequence of courses I had to take in chemistry, physics, and biology. I ended up actually studying on the main campus from '48 to '51, and I loaded up on all kinds of interesting biology courses, which I loved. In fact, I spent most of my time in New Jersey Hall, taking courses in zoology, botany and bacteriology or as a work study student washing bottles and glassware!

SH: When did you decide what you wanted to do with this?

HA: Well, I had dentistry in mind as a teenager, as I wanted to work with my hands and not have a long commute to work, that is, I could have a practice in my own suburban home. I had seen how awful commuting was for my father. I thought I'd like to have a profession, and this was during and after the war. You can't imagine the intense fear we had in the Cold War and the Red Scare. [Editor's Note: After World War II, a widespread fear of Communism and the spread of its influence pervaded the United States. This post-war period, known as the Red Scare, saw many anti-Communist witch-hunts, such as the hearings of the House Un-American Activities Committee.] [Note by Dr. Archard: "Editing the Editor' Note: Many subversives were, in fact, identified, including, Julius and Ethel Rosenberg, Alger Hiss, among others (see J. Edgar Hoover's, *Masters of Deceit*, or Whittaker Chambers, *Witness*). Admittedly, many people, especially in Hollywood, were accused but never proved to be Communists, though a good number were overt "fellow travelers," to use Senator McCarthy's phrase.] This (Red Scare) played on my mind, especially when Truman was elected and the Korean War ensued. Beside, my father was reluctant to talk too much about his business or really to influence me into going into his brokerage business. It was an age of uncertainty. Here my father was running his own business, and it completely consumed him. He had been harassed by the Securities and Exchange auditors in the '30s, and now regulatory rules were defying businesses like his in the '40s. In addition, he was somewhat dysfunctional (like his family) and did not care for children nor have that much respect for education, as he was a "self-made" man and thought everyone should do the same. He probably wanted me to go into his business, but he never voiced it as such. At the same time, he was not sure of the future because of the Socialists and Communists running much of the world. Remember, everyone expected Thomas Dewey to win the 1948 election, but Truman won instead. I can still see Truman holding up the newspaper with the headline: "Dewey Wins." That sort of cast the die for me, especially after our involvement in the Korean War. [Editor's Note: Harry Truman defeated Republican candidate, Thomas Dewey, in the 1948 Presidential election. The media had largely projected Dewey to win, and the day after the election, Truman in a famous photograph was seen holding a newspaper (the Chicago Tribune) with an erroneous headline claiming Dewey had defeated him.]

SH: In 1950.

HA: The draft was put in place. I remember I had to register for the draft with Col and Mrs Davis who lived in Wessels Hall (as the quad "House parents"). I had always aimed for dentistry; I never wanted or aimed at medicine. I never applied to medical school and only applied to dental schools; I applied to a fair number of dental schools, too. I was accepted at Columbia, and I think that was because they had sort of a quota system for New Jersey residents. In the dental school class of 40 students, there was only one other New Jersey student I recall, and that was Bob Kelly, who had attended Rutgers. I believe Columbia and NYU, had some kind of arrangement with New Jersey to take qualified dental applicants, because New Jersey did not have any dental school at that time. New Jersey also depended on Temple and the University of Pennsylvania, as well as Columbia and NYU to feed dental graduates into the state. So, after the war, there was an explosion in interest in medicine and dentistry and applicants for these professions. There was a large need for these professionals with the challenges of the Cold War, the Department of Defense needs, the Marshall Plan, *Sputnik*, and the 'space race' which all contributed to the competition with the Communists. [Editorial Note: *Sputnik I*, a Russian

satellite launched in 1957, the first to be put in orbit, initiated the "Space Race" between the USSR and the United States.] We didn't know what was going on behind the Iron Curtain. I stuck it out with my aim for dentistry and applied to several dental schools because, as I told my parents, "I'm currently exempted from the draft, being in college, and I thought I needed to have a professional career to fall back on. In the event something did go wrong internationally, there will always be a need for physicians and dentists somewhere around."

SH: ROTC [Reserve Officer Training Corps] was mandatory.

HA: Right, I took ROTC. It was required.

SH: Did you take it when you were at University College or when you came down here?

HA: No, but I took ROTC when I was down here on campus. Interestingly, every freshman was required to take phys. ed., however, I never took phys. ed. at Rutgers. Never-the-less, I got my degree without it. They never picked up on it. Are they going to take my degree back? [laughter] I hope not. That was the problem with the noted editor of the Encyclopedia Britannica, Mortimer Adler, who had gone to Columbia, but never received a degree because he had not taken phys. ed. That story I remembered and I always thought, "God, I sure hope they never find out at Rutgers that I didn't take phys. ed." [laughter]

SH: I think ROTC would qualify for it.

HA: Yes, Well, we were being prepared for the military, and I had no objection to that training, but it wasn't my thing. I had no interest shooting, or firearms, and I still don't own a gun. By upbringing, I am a pacifist, and still am by habit. Blessed are the peacemakers!

SH: I wanted to ask about the different social activities that were here after the war.

HA: Oh, yes.

SH: What do you remember?

HA: I remember only walking back to the dorm from New Jersey Hall late at night, sometimes midnight or even later, after a whole evening of bottle washing [laughter] and cleaning up, and going down College Avenue to Hegeman. There were fraternity parties going on, with cars all around on College Avenue. You could tell the vets and frat boys were high on beer and what else. [laughter] I was struggling to make ends meet and feed myself at the Commons at the time, so I never drank beer, went to bars, played bridge or cards, etc. or had any social life. The Commons was run by a Mr. Tomassini who was a very pleasant fellow and ran a pretty tight ship, and, of course, I was eating mostly Harvard beets and macaroni and cheese! [laughter]

SH: Was it open during the weekends? Was it full?

HA: Yes, though not too many stayed on campus on weekends because many of the students were commuter students, and many had cars and went home. I didn't have a car of course.

[laughter] My father would never have considered giving me a car, and anyway I could not have afforded to keep one. Besides, there was no place to park one.

SH: When you transferred down to Rutgers College, there were still a lot of GIs going through the school at that time.

HA: Oh yes indeed. I took courses and labs with a lot of highly motivated and intelligent GI's in chemistry, biology and elsewhere. I don't know what proportion were GI's - maybe half or so had some kind of military experience.

SH: Was it obvious who was a GI and who was a student?

HA: No, it wasn't obvious, although most wore army "chinos," the tan military slacks they had from the service or some other military attire. Some had gone into the service to get the GI benefits just as the war ended. They never faced combat, served their two years and then would get a discharge and receive the benefits. I could have done the same thing when I graduated from high school in 1946, when the GI bill ended later that year. I toyed with the idea, but I was afraid of losing continuity in my desire for college and ability to take course work. I learned to listen rather than to study a whole lot, as I didn't have a great deal of time to study because I was taking courses that had labs, even on Saturday morning in biology. The chemistry labs were held Monday, Wednesday and Friday afternoons from 1 to 5 or later at the University Heights campus in Quonset huts. A regular bus service ran from the College Avenue campus to the Heights. I had a full schedule while working as a 'work-study' student.

SH: Did you have a favorite professor?

HA: Yes, probably Murray Fife Buell, Professor of Botany. I talked about this earlier. Mel Carriker, who I understand just passed away, was one of my favorites also. He left Rutgers and went to Woods Hole. Dr. Marion Johnson, the Chairman of Botany, seemed to have taken a liking to me was another favorite. He gave me the job in the Botany lab cleaning glassware, and his son, Karl was a physician who became a researcher in infectious disease at NIH while I was there. He is referred to in Peters book: *The Virus Hunters*, [C.J. Peters' Virus Hunter: 30 Years of Battling Hot Viruses Around The World]. He writes about Karl Johnson and the dysfunctional activities of people who work at NIH [laughter]. There work was perilous, and they went through divorces in order to follow these pursuits and to do these strange things and whatever. No, there was an urbanity and civility in that period here that is missing today, I don't know about Rutgers today, but much of society has lost that culture of respect. I think it was partly because we remembered the horrors of war, and those of us on the home front had known adversity, rationing, loss of service men we knew. We had learned to do without and put our nose to the grind stone by working hard to make it work for ultimate victory. The atomic bomb ended it all, and changed everything for the world and for me. I did not have to participate in a costly invasion of Japan.

One of my least favorites was a teaching assistant named, Abraham Glasser, a Cornell graduate, who was very unhappy, cynical and defamatory. He referred to Dr. T.C. Nelson, head of Zoology, as the "old walrus." I had George Sames for lab instructor in my first year biology and received an "A" for that semester, but the next semester I had Glasser, and received a "C."

This was my introduction to what I later interpreted as Jewish discrimination in grading; I encountered it again at Columbia. It was a rather blatant form of discrimination against non-Jews, that no one dare talk about, even today.

SH: I noticed your sister is older than you.

HA: Yes, she was almost five years older, four-and-a-half.

SH: Did she go directly to college from high school?

HA: Yes, she went to Glassboro State Teachers College after she graduated, I believe in 1941, from Dwight Morrow High School in Englewood, N.J. She had a congenital heart problem that probably runs in my mother's family. She was later successfully operated on at Hahnemann Hospital in Philadelphia. Years later she was operated on for a repair at Deborah Hospital in South Jersey and during the operation there was a complication and she died on the table; this was about 1984 as I recall. She had inherited almost everything in my father's estate, and I was left out, probably because I did not go into his business. He undoubtedly was disappointed, but he was its poorest salesman. He kept wondering where it would all end, as the socialists were destroying all entrepreneurial activity. He had a partner, Julius Rapp, who outlived him and to whom he sold the business. My father and Julius Rapp were truly 'street smart' people who had business acumen and were very good at math and calculating a profit on everything. My sister and I parted company after his death. In Wall Street you have to know everything that is going on and anticipate and predict the future. Well, that is what Goldman Sachs does for a profession, to an unbelievable degree, as we're beginning to learn. Inside trading has its merits (if you're an insider), as I talked about it before. My father, I have every reason to believe, was thoroughly honest and did not trade on insider information. He had some wonderful clients including Colgate W. Darden, Governor of Virginia and father of the business school that bears his name at the University of Virginia. There was also Mr. Harry France, a King Features syndicated financial analyst, as well as many others.

SH: You were here at Rutgers when the Korean War broke out in 1950. You talked about the election.

HA: Yes.

SH: And the shock that it was Truman had won. What was the reaction on campus in 1950, when the war broke out in Korea?

HA: Well, we had to sign up for the draft. It was imposed on all eligible males, and, of course, you're exempted from the draft if you are in college. I think that was a motivating force in my own mind about fighting on foreign shores for a cause we weren't so sure about. This confrontation with the "Red Scare" from Russian Communism and this crazy guy, Stalin, who had already killed over five million of his own people through starvation as a consequence of his policies, to say nothing of the twenty-plus million who died in the war, produced real challenges. When we found out about the Holocaust and all the terrible things that had occurred in a supposedly civilized and sophisticated culture such as Germany, that allowed these things to go

on, it was absolutely stunning and reshaped all our thinking. General George C. Marshall gave an address at Harvard talking about the rehabilitation of Europe. This, I think, was an implementation of Christian principles better than anything else we may have seen in our lifetime. [Editor's Note: The Marshall Plan, or European Recovery Program, created by Secretary of State George Marshall, was implemented by the United States in 1948, to financially aid Europe in its recovery after World War II.] We, in fact, brought the world an opportunity to embrace freedom, rather than totalitarian government. It also empowered our former enemies: Germany and Japan.

The first broker I ever dealt with - having such a brokerage background as I had - I wasn't afraid of what was going on internationally. Somehow, I had faith in the strength of this country and its legal basis to invest in free enterprises. I had learned to listen to my father about investing. My broker, Robert Milam, when I was in Washington, DC, was a graduate of Columbia's Business School with an advanced accounting degree and the best broker I ever had. He told me about a book, which I subsequently bought, called *The New Totalitarians*, by Rolland Huntford, a *Manchester Guardian* journalist who spent eleven years in Sweden. Huntford became utterly exasperated by Swedish socialism. You couldn't do a thing without getting approval from some bureaucrat or a bureau. It shows you how, in a very monotonous culture, where everyone thinks alike, even look alike, have similar values, similar religious and cultural attributes, such as the Swedes have, the socialist concept might work well as it appears to be in Sweden. This is the perfect substrate for a uniform, socialized medicine approach or socialized approach to anything. I see them as being from a "cookie-cutter" culture where there is a willingness to forsake a great deal of personal individuality; it is a conformist mentality that does not expect dissent. That is why I wonder whether socialism can ever take hold in this country with all our diverse cultures; the U.S. is a "melting pot" of groups with a variety of different elements that tend to pull us apart rather than unite us. That book, *The New Totalitarians*, sort of put an eye on this problem for me; everything, to me, always comes back to "supply and demand and survival of the fittest." These are also the key lessons of anyone majoring in biology and with a background in ecology: supply and demand and survival of the fittest. You look at ecological niches for plants and animals, and often it is a particular nutrient supply that determines which organism is fittest to survive in that particular ecological niche. I have always seen things through this concept, as a "biological realist," and I began to apply the principles of ecology to human ecology (or social interactions). I began to see how ruthless and unrelenting such behavior could be. So I looked around, and having read *Our Plundered Planet* and all these other things, I wondered where the long-term survival is best achieved, and I realized it was to be found in groups that are powerful. The most powerful group ever was the United States. I couldn't identify any one powerful group in this country, except for the Protestant work ethic group, at that time, who have a value of trust and freedom that is quite different from the totalitarian approach of the older religions, particularly Roman Catholicism, or, for that matter, the gregarious nature of the Jewish religion. I do not consider myself as anti-Semitic nor anti-Catholic, however, I may not be as pro-Semitic or Pro-Catholic as these groups would insist I be, but I insist I am not anti-anything, as I am a scientist and try to be totally objective. The ultimate laws are still supply and demand and survival of the fittest, but I live with the eternal hope that there is some purpose to life. [laughter] That, of course, takes me back to my religious upbringing and my Protestant background. Having been tutored by a caring, moral mother, who brought all the church sermons home after the Sunday service and quoted them to us at the Sunday dinner, I was destined to do something constructive as my life's work. [laughter] Her

favorite saying was, "You cannot control others until you can control yourself!" and I have repeated that time and again in my conversations and in a recent letter to my granddaughter upon her high school graduation. I think it's important because most people are out of control, but that's because they do not think and they have never been trained to think, and, above all, to think objectively, which is what science requires. I am rather dismayed at authoritarian religion, particularly the Catholic Church, because I did read *American Freedom and Catholic Power* by Paul Blanshard (1949). It was at a time that was very worrisome because it came out when I was at Rutgers, and it was banned by the Roman Catholic Church. I had a copy of it because the University was under attack by the Church. I loaned the book to my sister and her new husband; she had converted to Catholicism and had literally signed an agreement with the Church to raise her children as Catholic. Her husband was a devout Roman Catholic and had considered entering the priesthood. I never saw the book again, because the Catholics hated it, and not only banned the book, but, I learned later, urged Catholics to burn the book; that seems reminiscent of the Nazis and their book burning. Book burning was very common in Hitler's Germany, and all I can think of is that Hitler, Himmler (the author of the "Final Solution"), and Joseph Goebbels were all raised Roman Catholic. It seems like a heritage that does not seem to be a nice heritage to have. So, there is something to be said for this WASP-y, Northern European heritage, however it doesn't seem to be in favor these days. It's not *politically correct* apparently to have independent, self-reliant values; you must conform and "goose-step" the way the Nazi's did. It reminds me of what Emerson said in his essay on *Self Reliance*: "A foolish consistency is the hobgoblin of little minds!"

SH: When you came to Rutgers, were there any vestiges of the Dutch Reformed heritage?

HA: Oh yes, and I was going through my yearbook, and I've forgotten what it's called.

SH: *Scarlet Letter*.

HA: Yes, *Scarlet Letter*, and I was struck by the number of Dutch and Germanic names. I've always had a great admiration for Jan Hus, who was burned at the stake in 1517, and then, above all, by Martin Luther, who in 1517, wanted to discuss his "Ninety-Five Theses" with the Church, and this ignited a storm throughout Bohemia, all the ways up to Holland. The book by Jonathan Israel, "*The Dutch Republic, Its Rise, Greatness, and Fall, 1477-1806*" refers to people like Erasmus, Thomas a Kempis and others who promoted a movement called the *Devotio Moderna*, the Modern Devotion, which sought to behave and literally walk in the footsteps of Christ. Indeed, this was the title of Thomas a Kempis' work, The Imitation of Christ. I wanted to find out more about this movement and how it influenced people. I wanted also to know more about "William-The-Silent," who was born Lutheran, raised Catholic, and later became a Calvinist, and who pleaded with Philip II to stop the Inquisition. When Philip would not stop it but sent the Duke of Alba, who massacred countless people, I've always thought that this was a turning point in civilization, much like when the 'Winds of Divine Providence' blew when Elizabeth I's fleet defeated the Spanish Armada. [Editor's Note: In 1588, under the reign of Queen Elizabeth I, English forces won a significant victory over the Spanish Navy, largely consolidating British sea power for centuries to come.]

SH: In one of our email exchanges, you talked about being able to study at the Sage Library [at the new Brunswick Theological Seminary].

HA: Yes, I used to study there. The entrance was through large double doors on Seminary Place, and the library was used very little as I recall. They had a long leather sofa in the back facing the rear windows, and I remember vividly the water damage to the ceiling. It was beginning to decay and plaster flaked off to the floor, but along the long walls were shelves filled with old biblical books and texts as well as bibles. I'll never forget seeing the huge old bibles with calfskin bindings, some in white with ribbed backing, dating back to the 1600s. They were very old and appeared to have been hand made. Well, you may know, they also had a complete collection of the original Audubon prints of birds, which they later sold off.

SH: Really?

HA: This was not long after I left that I heard they sold them off.

SH: Was the old chapel here?

HA: No. They had another chapel here that they used for teaching.

SH: One burned down. I do not know what year this was built.

HA: Oh, maybe that was it. I didn't spend much time there. I only came into the library, because it was this aura of thoughtful, inquiring, moral minds that I was trying to appreciate. The Sage Library, I don't know, I went into it the last time I was here, about ten years ago, and was stunned by the changes with the entrance in the rear. I used to come in through the large wooden, double doors on the other end of the building which entered the library from Seminary Place. They still have many of the old oil paintings of the ministers that hung on the walls. But it is quite different in every respect with many more users. All I remember are those old priceless books from the 1600s or so, not long after printing started that they had here. I don't know what happened to them, of course.

SH: Thank you, because I was curious to get a description of what it looked like in the early 1950s

HA: Yes, there was a big sofa, a leather sofa, that faced this way (towards the windows), and I used to sit in it., and then, I was so tired, I ended up asleep in it. I was always ashamed because here I was in this sanctuary of religious thought, and I wasn't studying religion; I was a perpetrator of science. [laughter]

SH: We talked about the work you were doing in Geology Hall.

HA: No, New Jersey Hall. That's a landmark building, New Jersey Hall.

SH: How else has the campus changed since then?

HA: Well, those building on the Voorhees Mall are all the same. The last time I was here, the physics building, which was down on the other end of the mall from New Jersey Hall, by the statue of "William-The-Silent," on Seminary Place, is a social science building. I recall the original post-war planning for the campus was to put the science center on University Heights in a horseshoe arrangement around the golf course and convert the Neilson Campus (Voorhees Mall) to liberal arts and social sciences.

SH: That is Van Dyck Hall now.

HA: Van Dyck, yes. Van Dyck Hall, that's right. I don't know, was he a physicist or somebody in science? I don't know.

SH: Was Bishop House where the History Department was?

HA: Right, yes, but, anyway, the chemistry hall was across from Van Dyke, and we held all our chemistry lectures there (on hard wooden seats, not the cushioned ones that are there now!). We had our organic chemistry laboratories in the basement of that building, and the inorganic chemistry lab was held there during the summer course that I took in 1948. Qualitative and quantitative analysis labs were held in Quonset huts set up on University Heights. The chemistry labs were expensive because of the equipment they required, so a lab fee was charged (I think $20.00 a semester). On the mall there was a small, two-story, black house with a small front porch that I recall was called "Cook House"; it was where the Economics Department was located then, and possibly where George Cook, the father of the Ag school may have lived and where the NJ Agricultural Extension Service started. I had a roommate at Ford Hall (on the third floor) in my last year, Edward Friedman, who took courses there. Ed was a Phi Beta Kappa business major, and I heard died a few years ago. Our separate rooms looked down upon the mall and Cook House while the front room, originally set up as the study area, housed two cots. I only recall Bruce Kirkpatrick, a math major, and Paul someone I can't recall his last name, occupied these army cots. All the rooms in the various campus dorms were doubled up because of the burgeoning student population and dorm shortage. None of the rooms were air conditioned. I recall Ed volunteered me and convinced me I should play the "Winslow Boy" in the play of the same name by Terence Ratigan. This did not help my 'failing' interest in physics, which I had to take over in summer school at Newark Rutgers before I went to Dental School at Columbia in 1951.

SH: Before that.

HA: Yes, I see they have torn that house down, and further over towards New Jersey Hall is a new building dedicated to Social Studies, and New Jersey Hall is now where the Economics Department is located. I spent most of my time in New Jersey Hall for course work and for work-study in the Botany Lab.

I recall there was a model (or mock-up) in Old Queens or Winants Hall of the planned science center proposed for University Heights, a horse-shoe shaped campus of Georgian colonial buildings surrounding the golf course. The first building was the Wright Chemistry building (now Wright-Reiman Laboratory) and next to it the Waksman Institute. I don't know who

Wright was, but I notice that there's a plaque to a "Wright" on the door entrance here at 18 Bishop Place, also known as Bevier House. I have to check that out, but I wondered if he had been a chemist who discovered something very important or had a rewarding patent or discovery. Dr. Reiman was my quantitative analysis professor, and I was always amused at his thick Brooklyn accent. Oh, it was so thick it blew me away, but he was a most precise scientist, as only the Germans and Dutch can be. He wrote the McGraw-Hill text on Quantitative Analysis. I married a German, half-German wife [laughter] so I can attest to their scientific precision. She was a lab biologist, and my daughter became an aerospace engineer, and I can't believe it, as she graduated in aerospace engineering from MIT in 1985. How time flies by. MIT would not even have looked at me! [laughter] She was accepted to MIT in 1981, when I had just started teaching oral pathology at Stony Brook. It may have been part of the women's movement at that time that promoted more women in science and engineering. My mother had remarked she would have liked to have been an architect or an engineer. Indeed, I believe the people who have profited the most form the 'equal rights' movement have been women, especially those taking advantage of the opportunity for education. I am particularly pleased in my life that my daughter fulfilled what my mother would have loved to do. It has been said that an education is one of the few things people will pay money for but not take. My daughter took it and ran with it, and that has made my life worthwhile.

SH: When you left Rutgers and went to grad school, was there someone here at Rutgers who was mentoring you or who prepared you?

HA: No, I only had recommendations from Dr. Murray Buell and from Dr. Marion Johnson, and they were very nice recommendations. Dr. Johnson was head of botany. I may have had recommendations from Dr. Mel Carriker, I'm not sure - trying to think who they were. I had good recommendations, I know, as I had a degree in biology (B. Sc. in Biology), I had had five years of Rutgers education (two years in University College and three years in the College of Arts and Sciences on the New Brunswick Campus). Coming from New Jersey probably helped in my entering Columbia Dental School, although I was mostly an "A," "B," and "C" student. [laughter]

SH: I thought maybe they had directed you to a certain professor to study under.

HA: No. We didn't have a specific mentor as such when I was here. They may now, but not that I know of then. I know they have them at MIT where my daughter went, and there's a better and different interaction now between professor and student. I mean, we were thrown into a big lecture hall, and then broken up into study sections or lab sections for more individual instruction and interaction with a teaching assistant. That's the way it was run at that time. We did have a pre-med and pre-dent advisor, and that was Dr. Thomas Jefferson Murray, head of Bacteriology.

SH: Was there a social scene here you were a part of? Were you part of any of the fraternities?

HA: No, I didn't belong to any fraternity. I had no car, and I had no money, and I worked. My father wouldn't have had it any other way! [laughter] I used to go to hear Dr. Gross, who ran the Philosophy Club, which was held in the basement of the old yellow house on College Avenue near the Gym that housed the Art and Philosophy departments. Dr. Von Erfa was the head of the

Art Department. There was a classroom on the first floor and a basement meeting room. The philosophy section teacher was a Dr. Sachs who was getting an advanced degree at Princeton. Dr. Gross brought in some interesting guest speakers. One was Dr. Benjamin Mays, a very well-known Black educator and President of Morehouse College in Atlanta. That is when I began to appreciate that the Blacks had a great deal going in education, especially if given the opportunity at education. I was aware of discrimination and the separation of races, but realized they had as much potential and appreciation for education as whites. Racial barriers were beginning to come down, and Rutgers, with people like Paul Robson, was leading the way. My origins were from strict R.I. abolitionists. There's nothing like an education to bring out the best in people. Dr. Gross had other distinguished guests, but often he led the discussions himself. Just listening to him was a privilege. I made the transition quite easily to Columbia, because, quite frankly, although the courses were stiff at Columbia, I didn't think it was any harder than the courses at Rutgers, [laughter] as I also had to work part time while attending Columbia. I lived at home (in the Brooklyn Heights apartment) with my parents the first year, but my father wanted me out of the home. I believe my tuition was about six hundred a semester. In the second year, the instruments were very expensive, and he made me sign a loan for the money. That was a lot of money at that time, but he was doing well. I recall he was paying about four hundred dollars a month for rent of an apartment that had a view of the East River and downtown NYC where he worked. He even walked across the Brooklyn Bridge to go to work sometimes. He probably did not want me to continue in dentistry and may have wanted me to go into his business, although he never indicated any such interest to me. He never believed too much in education nor bothered spending too much on me. He wanted me to know the work ethic and how to provide for myself, much like he had known. I did work at various things during the four years in dental school, but mostly I served as an attendant at the New York State Psychiatric Institute at the Columbia-Presbyterian Medical Center for more than two years later on. I also worked in the dental department at Kings Park Psychiatric Center on Long Island one summer. One summer I did field work with Dr. William A. Niering, of whom I spoke about earlier. At the time of his death in 1999, he was the most senior tenured professor at Storrs, Connecticut, and a very popular teacher. He was a very accomplished investigator in plant ecology, wetlands ecology and Northeastern forests and flowers, and wrote several of the Audubon field guides. I also spent a summer with the American Geographical Society as a field assistant in the Canadian Rockies between my first and second year of dental school. Dr. William O. Field of the AGS was the director of the trip. They were studying glaciers and glacial recession with grants from the U.S. Navy. They were following the recession of glaciers across North America, and part of the documentation was to determine the plant life that comes in as the glacier retreats and recedes. I worked with Dr. Calvin Heusser from Rutgers who was a graduate student under Dr. Murray Buell. I am not sure what happened to him as we lost contact with each other. His field of expertise was pollen identification in cores of soil or peat bogs. He did tree coring and age determination of the vegetation that comes in when a glacier recedes, and this often provides very precise dating and identification of the rate of recession as well as weather changes over many years. I assisted him for that summer, but I realized it was the only chance I would have to go to the Canadian Rockies. I sort of "stuck" my father for a free vacation. [laughter] The summer before, when I worked in High Point State Forest in NJ, with Bill Niering, I had done the same thing to get a free vacation. My father was in favor of education during the Korean War, possibly for purpose of the exemption, I guess, but mostly he did so at my mother's behest. My mother was educated, but he was not. I really think he hoped I would fail in my dental

studies, and come to him for employment, but I knew he was impossible to work for nor was I able to please him. I think my father was ambivalent about his work and whether I should go into it or not, as he always wondered where it would all end. This was a time of great uncertainty with the Democrats in power, the Korean War and the "Red Scare." He also had concerns about the direction of government and the regulatory climate of Wall Street. But, in fact, I knew I did not have that kind of business mind, as I had a much greater interest in science and biology. My father was exacting to the Nth degree and could quickly calculate in his head faster than a modern computer. He had used an abacus in the early days in the banks, and he always knew where the profits were. He was always attuned to the business world, and he loved it. His whole life was Wall Street, and knowing all these important people and bankers, as well as some of the super-rich people. He had faced incredible adversity. Before the start of the Great Depression, he was beginning to make a good deal of money, although he still had a house mortgage. Then, in 1938, he lost the summer home in Quonochontaug, R.I., that was right on the ocean-shore during the Great New England Hurricane of 1938. The war came along, and with Lend Lease, he was saved, just as Roosevelt was saved by war-time spending.

SH: Did you work?

HA: I always did all kinds of work as a child around the house, yard and caring for the garden, the chickens, etc., but in the summer of 1946, I worked as a messenger/clerk running an addressograph-multigraph machine at Motor and Equipment Manufacturers Association at 250 West 57th Street, in the old Fisk building. That is where I got my social security card. My father believed children should be made to work and face competition. I recall that I was the only kid in grade school wearing an Alf Landon button in 1936. All the other kids were wearing red, white and blue FDR buttons, and I had a brown button with a sun flower that said Landon. I think my father did that deliberately, and may have given me the button so I would get beaten up. [laughter] He was a street fighter and loved to go to fights and being a pugilist; he installed a punching bag in the basement for himself and me to use. He was a 'fighting' Irishman who grew up in the streets of New York, as he was the youngest of three boys 'spawned' by a very 'irascible' Irish Catholic mother.

SH: Did you work in the summers after you came to Rutgers or did you stay on campus and continue to study?

HA: One year (1948), I was on campus for summer school taking general chemistry. The other years before that, while I was in University College or night school in Englewood, I was at home and worked on my father's "farm" in Park Ridge, where I was doing things for him. He had bought a large Victorian home with a barn in 1946, just as I graduated from high school.

SH: The farm.

HA: Yes, my father always wanted a farm. While I was on campus at Rutgers from 1948 to 1951, I worked on his farm the first summer and then the following summer I did the field work with Bill Niering and then the next one between my first and second year of dental school I worked with the American Geographical Society. One summer I had to take the second term of physics at Newark Rutgers and that was 1951, just before going to Columbia. I commuted to

Newark from Brooklyn, and passed physics, after which I received final acceptance to the Dental School at Columbia. It was called the "School of Dental and Oral Surgery" then, but is now called the "College of Dental Medicine."

SH: When did the family move from …

HA: We lived in Park Ridge from 1946 till 1949, or 1950. I don't recall for sure which year we moved to number one Pierrepont Street in Brooklyn Heights. The commuting was awful for my father into Wall Street from the suburbs. In the '30s he used the train. He took the Lackawanna RR commuter train to Weehawken and the ferry over to Wall Street. Later he used the bus (Hill Bus Lines) from Oradell over the George Washington Bridge and then the subway to Broad and Wall St. He would come home in the summer drenched in sweat as the buses were not air conditioned. He realized a farm is nice, but a lot of work, and more than I could do! [laughter] So, he found this apartment with a view of the harbor and downtown, NY. I made many trips down the Westside Highway, through the Brooklyn Battery Tunnel to #1 Pierrepont St. where they had a ninth floor apartment facing his beloved Wall Street. Then, after a few years, they moved down the street to 160 Columbia Heights, right above the Brooklyn promenade, and across from downtown NY and Governor's Island. The first apartment, at 160 Columbia Heights, was a two-floor apartment in the rear and then, after a year, they moved to a two bedroom frontal apartment with a beautiful harbor view. There was no air conditioning and I recall the soot settling and smearing the window sills. The promenade was just above the Moore-McCormick Steamship Lines that were docked there. The oily soot they emitted stained everything. There are a lot of ecological changes brought about by air conditioning. [laughter]

SH: When you went to Columbia, you were in the School of …

HA: School of Dental and Oral Surgery, as it was known at that time. There were only forty students that they accepted. It was a rather elitist, small school with a very powerful, wonderful, clinical faculty and a preeminent basic science faculty under the direction of the College of Physicians and Surgeons. Columbia was built to a great extent by Alfred Owre in the '20s and 30s who came from Minnesota to create a dental education based on the basic sciences; Columbia was unique in that regard. They set the stage for a university-based dental education. Why? simply because dentists can 'kill people' by negligence and ineptitude. There was a recognized biochemical basis to the dental sciences, and they wanted to develop that based on the famous 1926 report on "Dental Education in the United States and Canada" by William J. Gies, Professor of Biological Chemistry at P & S. This was another Carnegie Institution report comparable to the famous 1910, Flexner Report on Medical Education. Alfred Owre was a DDS/MD who had served as Dean of the School of Dentistry at the University of Minnesota for 22 years, and became the Dean of the School of Dental and Oral Surgery at Columbia in January 1927. He had a vision of dental education in close liaison with medicine and implemented many of these basic science changes. Dr. Gies was founder of the *Journal of Dental Research*, its first editor, established the International Association for Dental Research and an organizer of the American Association of Dental Schools. All of this changed dentistry from a technical training to a minimum of two years of pre-dental training in chemistry, physics and biology, which was followed by a four year curriculum of dental education with prescribed basic science courses in the first year and a half or so. It was a wonderful basic science education that we received at

Columbia, and we took a number of courses with the medical students: histology and embryology, microbiology, pharmacology, etc. Columbia set the model for all dental education today in this country. Harvard may have been the first dental school, but they weren't turning out dentists; they were turning out physicians who dappled in clinical dentistry. Columbia gave dental degrees with a solid basic science education. The school was essentially the merger of two old NYC schools: the School of Dentistry and the College of Oral Surgery, I believe, which had a long history going back to the late 1800s. At one time, with the advent of general anesthesia and the recognition of "focal infection," dentistry was a more prestigious profession than medicine. Medical education was just being organized as a profession with a basic scientific foundation, and it was filled with medical quacks who were not certified with a comprehensive education. There was a great deal of variation in the training. Dentistry had developed general and later, local, anesthesia. Why this was so is because dentists were operating in the area of the largest cranial nerve: the fifth nerve or trigeminal nerve, that supplies the maxilla, the mandible and the ophthalmic regions which are the most sensitive areas of the body. It is also apparent that this, the largest cranial nerve, dominates much of the brain, in both sensory and motor areas, reflecting its vast importance. [laughter]

SH: I was just going to say, I know a little about this, now.

HA: Yes, I worked very hard. I worked part time as a reservation clerk at the Hotel St. George in Brooklyn Heights, because we lived very near there. Yes, I also ushered for weddings and receptions there at the St. George, sometimes till very late in the morning. What else? Oh, any kind of job I could get. My first job where I got my social security card was in Oradell one summer when I worked in NYC at Motor and Equipment Manufacturer's Association that I mentioned earlier. That was the summer after I graduated from high school, and we were moving to Park Ridge, NJ. So there we were a few years later living in Brooklyn Heights, and basically, I was on my own again. I made the decision to pursue my dental education. I was in my first year of dental school, and my father paid the tuition, but that was to be it. I would have to help support myself and be on my own and pay for my own room, board and laundry. That first year of dental school, 1951 to '52, was when my mother had her first heart attack, I recall, and the Korean War was in full swing. So, my father wanted me out of the apartment, and I had to find an apartment near the Medical Center. I had very limited funds, so I found out that there was a need for attendants at the N.Y.S. Psychiatric Institute, and I got a job there. It was part of the Columbia-Presbyterian Medical Center at 630 West 168th St. and Fort Washington Avenue. They provided me with room, board and laundry for twenty five hours a week as an attendant on the wards. As soon as I left after working there for over two years, they dropped the work requirement from twenty-five to twenty hours a week. That is the story of my life: things always get better after I leave! [laughter] That reminds me of a comment made to me by Dr. John Cornyn, (father of the current US Senator from Texas) and my mentor at the Armed Forces Institute of Pathology. When I was leaving the AFIP to return to NIH, they sent two PHS dental officers to replace me at the AFIP! [laughter] [Editor's Note: Dr. John Cornyn, Sr., attended college and dental school on the GI Bill and served in the Air Force for over thirty years. His son is currently the junior Senator from Texas.]

SH: You keep setting the bar.

HA: Yes, so it seems. I set the bar that it takes two to replace me. [laughter] Actually, I have to laugh because when I retired from Stony Brook [University School of Dental Medicine], in 1996, I was the only oral pathologist there in the 17 years that I was there, but after I left there were two people brought in to do the job I had done. [laughter] Well, that's because I worked and kept my mouth shut and didn't complain too much. I was there when Gov. Cary and Cuomo were governors and dealing with serious state budget problems. The dental school had just been set up and fashioned by Harvard dental people who had no idea or concern about oral pathology. So they loved me at Stony Brook dental school, as, at little cost to them, I carried the weight of a department without any help whatever. I was the only oral pathologist in the Department of Oral Biology and Pathology that consisted of at least fourteen dental teaching professionals and researchers, mostly from Winnipeg, Canada. They did very little teaching and focused on their research. It was, as some said, a strictly 'Kosher' operation, as only three of us were not Jewish, indeed, it seemed to verify what was believed: that Stony Brook was Rockefeller's gift to the Jews for having voted Republican! [laughter]

SH: Talk about how you pursued your education at Columbia and your focus.

HA: Well, the education was very structured - every minute was accounted for. Some of the lectures were by world-renowned researchers. When I went back for my fiftieth reunion I was stunned. I had previously been asked to make some remarks at the reunion, and I had forgotten all about it. I got there, and they had about thirty tables set up for over two hundred people. I made some brief, extemporaneous remarks on the quality of education we had received and the remarkable clinicians and faculty we had and how Columbia had led the field in the development of dental education and dental specialties. I could no longer practice dentistry on the basis of what was taught then, as it has changed completely, thanks to the incredible research and advances in the basic sciences. One thing we don't think about is the spin off from NASA [National Aeronautics and Space Administration] in materials research that has come out of the space program. I think of advances in ceramics and composites which have revolutionized dentistry. My daughter worked at MIT in the TELAC Lab (Technology Laboratory for Advanced Composites). The composites have changed dentistry unbelievably, and when I went to NIH for training in oral pathology, you could feel the excitement. After graduation from dental school in 1955, I went right away into the U.S. Public Health Service. I had a choice of several places to go to. I chose the Alaska Native Health Service. I realized I was single, so I said to myself "Let's see Alaska!" [laughter] I went to the Mt. Edgecumbe Hospital in Sitka, Alaska, and worked at the Alaska Native Health Service Hospital there. It was a TB [tuberculosis] hospital primarily, and had mostly active tuberculosis cases among the Alaska Natives and Eskimos. I have often wondered why I never turned positive for TB. Why, I'll never know, but it probably was because of the extraordinary precautions we took and the infection control procedures we followed. After the first year there (1955) and still feeling young (and foolish and adventurous), I was approached about setting up the first PHS dental clinic in Point Barrow, Alaska. This was the first year that the Public Health Service had implemented the recommendations of the Hoover Commission on government reorganization. The PHS had assumed the health responsibilities for Native Americans formerly provided by civil service physicians and dentists in the Department of the Interior. If you recall, Herbert Hoover headed a commission, called the Hoover Commission, to reorganize the government [the Commission on Organization of the Executive Branch of Government in 1947, and later, the

Second Hoover Commission in 1953,] and one of the recommendations was that the health services, medical and dental health services, be taken out of the Department of Interior and put into the Department of Health, Education and Welfare, in the Public Health Service. The draft was still in effect when I graduated from dental school in 1955. So, being penniless, and the PHS in dire need of medical and dental personnel, they gladly took anybody, including me! [laughter] Well, once again, I may have had a guardian angel; I think it might have been Dwight Eisenhower, as he had been President at Columbia before he became the President from 1952 to 1960. And he had ties to the P & S faculty, and Dr. Houston Merritt, head of the Neurological Institute, was his physician. The Columbia-Presbyterian medical faculty had contributed significantly to the expeditionary force and Medical Corps over in Europe during the war. Some of the people who taught me, the oral surgeons and the Dean of the Dental School, Dr. Maurice Hickey, had all headed up units doing reconstructive surgery on the injured soldiers. Trauma surgery really advanced during the Second World War, and also in the First World War as well. Wars have a way of advancing people, as during the Civil War when the Surgeon General's Library evolved into the current National Library of Medicine, Walter Reed Medical Center became a major center for medical research, the Army Medical Museum became the forerunner of the A.F.I.P. Perhaps the greatest advancement was the Marshall Plan! In 1955, the Hoover Commission recommendations were implemented, and a severe shortage of medical and dental personnel occurred in the PHS. So, they were delighted to have me go up to Alaska. A noted dental clinician in the old Interior Department, named Bob Lathrop, originally from Michigan, along with his wife, "Petey," went up to the Point Barrow Hospital and set up the first clinic there for Eskimos. [Editor's Note: Robert Lathrop was a dental pioneer who, while working in the Alaska Native Health Service established Barrow, Alaska's first dental clinic.] Bob was a general dentist and Petey was a registered nurse. Bob loved the remarkable Eskimo people and being outdoors in the Arctic. They went to Barrow and opened the first dental clinic, and they were noted for treating the coastal Eskimos by visiting their villages by dog train trips up and down the Arctic Ocean.

SH: Dog sled?

HA: Yes, 'sled' is the word I'm looking for. They went along the coast down to Kotzebue, stopping off at all the little villages doing dental work, which had never been provided for these natives. The Alaskan Natives, who were gaining access to the "white man's diet," were developing rampant dental caries. I made dentures at Mt. Edgecumbe for twelve year olds! I had to remove decayed "twelve-year" molars from under the dentures of these children, because they had no fluoridation in their water during development, no dental care whatever and no concept of oral hygiene. They didn't know how to brush their teeth! It was an eye-opener, and that is what changed me from "Fifth Avenue dentistry" taught at Columbia, doing gold inlays, gold foil fillings, and crowns and bridges and exotic restorations. It changed my whole concept, that there was a scientific basis to our work, and we had better get busy and prevent this kind of total dental collapse. We would see patients coming into the clinic at Columbia, mostly from rural places in upstate NY, often teenagers, having rampant caries and needing full dentures. You cannot imagine how bad dental health was in this country after the war.

SH: In New York?

HA: Yes, in New York State, and that was in the New York of the late '50s when I was interning at CPMC (1957-58). After the two years in Alaska I returned to NY, but my first year was in Sitka, Alaska, and the second year was in Point Barrow. I followed the Lathrops there and set up a permanent clinic for the PHS. Barrow is a fair sized village, mostly fishing and hunting and some tourism, but it was an important part of the Distant Early Warning Line, the DEW Line as it was called. We had a huge radar dome there that scanned the skies for Russian planes because that was right in the middle of the Cold War period. [Editor's Note: The Distant Early Warning Line was a system of radar stations in the arctic, northern regions of Canada and parts of Alaska, implemented during the Cold War to detect early signs of Russian flights or possible invasion.]

SH: Was there socialization with the Americans there?

HA: Well, the American professionals lived in their own housing built by the PHS. The native Eskimos lived in all kinds of houses, Quonset huts and shelters made of plywood, but I never saw an igloo. There were really no services other than a small store that carried mostly boxed or canned food items. There was a large wooden Presbyterian church and a small Catholic church in a Quonset hut. It was mainly the wooden hospital building mounted on pilings sunk into the permafrost. This was in 1956-57. I opened a single chair dental clinic, and I probably did, at that time, over a hundred thousand dollars' worth of dental work, easily, just in extractions in older people and fillings in younger children and teenagers. We took the kids out of the school and cleaned them up, teaching them how to clean and brush their teeth and that kind of work. It was a fight against rampant decay or dental caries.

SH: How many were in your party, so to speak?

HA: Well, there was one medical officer in charge and a staff of about five or six nurses, and they had their own quarters. There was a hospital with about five beds, four or six at best, and the one medical officer, Dr. Ed Kraft. He was there all alone, with several experienced nurses who would have to handle any and all emergencies. I did a tremendous amount of dentistry up there with just one dental assistant: Jeanette Brower, a granddaughter of Charlie Brower, a pioneer whaler in the late 1800s who wrote "*Fifty Years Below Zero*."

My mother was seriously ill with cardiovascular disease, so I wanted to return to NYC, and I wasn't sure what I wanted to do; I thought I might want to specialize. I thought about periodontology, prosthetic dentistry and orthodontics, but, you know, I had a love for microscopy, which I had since childhood with my simple microscope. I had a wonderful histology course at Columbia. That was during the morphologic era when students had to have a microscope for histology and pathology courses. So, while in Point Barrow, I wrote back to my former clinical stomatology teacher, Dr. Edward V. Zegarelli [a Professor of Dentistry at Columbia University who later became Dean], that I was interested in getting a little more experience at the Medical Center, and I asked if I could intern there? Well, I was accepted as one of the two interns at the Columbia Presbyterian Medical Center, which was just starting up a hospital program that year in dentistry with their own dental interns rather than relying on the dental school to provide emergency care. Because the School of Dental and Oral Surgery was right there in Vanderbilt Clinic, associated with the medical school and Medical Center, when there was a dental emergency the emergency physicians handled dental complaints by telling the patient to take two aspirins and go the dental clinic the next day when it was open. The

internship was a most valuable experience at such a great medical center, as we saw and did all kinds of things. I second assisted (essentially retracted for) Dr. John Conley, the noted and most famous head and neck surgeon at that time. He was just one of many great physicians and surgeons at the Medical Center. I decided against going into oral surgery as I wanted to get closer to the basic sciences and the biological basis underlying dentistry. So I cast about for training in oral pathology. Fluoridation had set the standard for prevention of dental caries and a standard for prevention of disease in medicine. The National Institute of Dental Research was the third institute to be founded at NIH, after the Cancer Institute and the Heart Institute. It was number three and founded in 19–, I think 1948, right after the war. [Editor's Note: Founded in 1948, the NIDR promotes oral health research and methods. Shortly after its founding, it helped promote fluoridation of the water supply, greatly improving dental health.] Because of this, rampant caries [tooth decay], which was so very prevalent, was investigated intensely in relation to fluoride in the water supply. It was found that it dramatically reduced the caries rate, down by about sixty per cent. It stimulated research at companies, like Proctor and Gamble and other places, to add fluoride to toothpaste, and indeed, it showed a further reduction in dental decay in numerous clinical studies. In fact, today, over half of the teenagers coming into dental clinics are caries free; they have no dental decay, and there I was in 1955, making full dentures for twelve year olds. So, we have come a long way, baby! [laughter]

SH: I had no idea it was that bad.

HA: Yes, and dentistry was always considered a snooty, moneyed profession available only to the affluent, but there was an interesting thing that went on in 1948, that most people don't know about. One of the first efforts of Truman, after his 1948 election, was to get socialized medicine through Congress, but we had just come out of the war, and we were facing all kinds of problems, especially restoring Europe, fighting Communism, etc. They didn't get the bill through. It was, I think, a Republican House under Speaker Joe Martin. [Joseph W. Martin, Jr., Speaker of the House from 1947 to 1949] Who was it? Martin was head of the House at the time. … I really ought to go back and look up the history.

[TAPE PAUSED]

HA: Finish the thought.

SH: Okay, let me put it back on.

HA: Okay. I recall that there was a hearing, actually intense hearings, in the House and the Senate over the health care bill and socialized medicine. The dental people (from the American Dental Association) were called in to testify and they washed their hands of socialized dentistry. The wanted to keep dentistry as a private practice, an elective service untouched by human "political" hands. There's an old expression that was in Burns' book, *Western Civilization*, attributed to Denis Disderot. You know Denis Disderot?

SH: The name, yes.

HA: The encyclopedist and founder of *the Bibliotheque Francaise*. He said: "Mankind will never know freedom until the last king is strangled with the entrails of the last priest." I love that. I would update him, and I'm sure he would agree, "Mankind will never know freedom until the last politician is strangled with the entrails of the last lawyer." I have no use for lawyers; lawyers make laws to keep lawyers busy, not that I have had any significant encounters with lawyers, but all too many are trouble makers. I will go on about the 1948 Truman socialized health care proposal, because dentistry opted out. Medicine was drawn in, and they did something clever. They said, "We don't know enough about diseases and what causes them; we need to do much more research." So they funneled Truman, and the more conservative elements in Congress, into doing what is the much wiser and infinitely more far-sighted thing to do and that was to support research more fully. They wanted to find out what really causes these diseases and develop techniques to prevent them. And this set off massive funding of medical research, as well as dental research, and the building of the Clinical Center at NIH. The Clinical Center opened in 1955, with skilled clinicians and basic science workers. They had many examples of the success of prevention, such as finding Vitamin D and the prevention of rickets and the discovery of fluoride and the prevention of dental decay and many others. Studies were already in on fluoride showing its' efficacy, but its' safety was called into question because fluoride is a very toxic element. It was feared it might cause cancer, etc., and it was to go into the public water supply.

[TAPED]

SH: Is it okay to put this back on?

HA: Yes.

SH: Okay

HA: 1948, I think, was a crucial year. Not only was the Cold War in effect and we were about to get into the Korean War, but the drift towards socialism became very obvious to me, and I could understand it completely, as Europe was bordering on a Communist conversion. [Editor's Note: The Korean War began in 1950.] My father had terrible medical bills with my sister and her repeated episodes of chronic endocarditis, [a medical condition characterized by an infection of the (heart valves and the endocardium or) innermost layer of the heart]. The social health imperatives were still evolving, but it was quite clear that research was more important and the best current approach. So, I began to think more and more about etiology, causation and what was going on throughout the whole oral cavity. We were still in the clinical classification era and predominantly oriented towards morphology and light microscopy, as all diagnoses are clinico-pathologic correlations. There must be other ways, I thought, but I was not a biochemist nor a physiologist. I had good exposure at Columbia, but chemistry was not my forte. I wish it had been. I wish I could have been a great biochemist, because now it is all molecular biology and biochemical genetics. I was at NIH in 1965, (having started in July 1960) when Marshall Nirenberg won the first Nobel Prize awarded to anyone at NIH. That was for his work on the genetic code and DNA. Nirenberg just passed away this last year. You could feel vindication for research in the air, and, every year after that, NIH had a Nobel Prize recipient for about five or six years. The research universities were gearing up for biological research as well. People

wanted a cure for cancer and they wanted to find out why people were dying of heart disease. Even surgical research was done there, and under President Lyndon Johnson, a two-floor, circular, surgical wing was added to the Clinical Center, with one floor for neurosurgery and the other for heart surgery. That is where my daughter was operated on for a congenital heart defect, in fact. So these were pre-eminent problems, and already, the Dental Institute had shown the way with prevention. The hope was that many of these diseases, not just dental caries, could be prevented. It was interesting that because of the size of the dental profession and the magnitude of the problems in the oral area, they would opt out of 'government manipulation'. They still had a place at the National Institute of Dental Research dedicated to dental problems, but other oral health problems still needed research.

SH: We can revisit that later.

HA: Yes, these momentous decisions to pursue health research that were made by this country in the '40s and '50s changed the world. I just marvel at the things that are done without government intervention or motivation, but also that the government stepped in and provided wholesale support for basic research. Then, in the mid-'50s, when I graduated from Columbia (in 1955), there was a large clamor to get research results down to the people who were delivering the care, that is, getting the research information to the clinicians who needed to apply it. They built the largest brick building ever built, in Bethesda, on the NIH campus, which was the Clinical Center to do applied clinical work. It also provided state of the art medical care near the political center of the nation which coincidentally was where the politicians were concentrated. They brought patients with all kinds of disorders to the Center from all over the country to study and try new experimental treatments. Indeed, while I was there, they kept adding new buildings and creating new institutes for special professional groups (the eye institute, the aging institute, et al.). One of the reasons I stayed at NIH [and it was happenstance that I was able to even get into NIH to train and work there - that is a whole separate story I'll have to tell later] [laughter], was that they added on a surgical suite for cardiac surgery and for neurosurgery during President Lyndon Johnson's term. He visited the pediatric oncology ward at NIH, actually the second floor near where I was working (in the 2B corridor). We used to see the children in wheelchairs who were thin and frail and had no hair due to the chemotherapy. I did autopsies alongside the residents in pathology during my pathology training period from 1960 to 1962. I worked with the senior residents: Dr. Sy Sabeson, from the University of Chicago, a gastroenterologist, and Bill Roberts, a cardiac pathologist who made significant contributions in cardiology, and who taught at Georgetown and later went on to be head of cardiology at Baylor College of Medicine in Dallas. I've recently been in contact with him, and he sent me a nice letter and book he wrote. He was editor of the *American Journal of Cardiology*, and a very fine clinical researcher. You can't imagine the volume of publications that came out of NIH, as well as the government supported research projects at the universities. They concentrated on the mechanisms of disease, which are essentially environmental or genetic in origin or a combination of an environmental factor related to a particular genetic basis. I had a golden opportunity, and for the most part I realized that. When I returned from my PHS assignment in Point Barrow and went back to Columbia, I took an internship in dentistry at the Medical Center, one of the first ones just created in dentistry there. There were only two of us, and we alternated days and weekends on call. Dr. Don Olson was the other intern, a very fine professional with whom I still stay in contact. Our operation stayed mainly within the dental

school during the work day, but crossed over to the hospital much of the time. We handled all kinds of trauma and whatever else came into the emergency room involving the oral region. That was for one year (1957 to 1958), and then Dr. Zegarelli, who was head of Oral Diagnosis, took me onto his staff (without pay). I had talked to him of my interest in getting training in pathology, as I was unaware of what was available. I knew he had trained at the University of Chicago and had a master's degree from there, studying under Dr. Maud Slye, noted for the Slye strain of rats in which an unusual odontogenic tumor [a tumor located in the jaw region and derived from the dental anlage] was observed in this strain of rats. He urged me to apply to programs, and I looked around. I applied at Columbia, but the Dean of the Dental School, Dr. Gilbert Smith, who was a son-in-law of Dr. Grayson Kirk, the President of Columbia, told me there was no opportunity to train there. Dr. Zegarelli, my mentor at Columbia, remarked with prophetic irony: "Poor Gilbert, he just doesn't have any imagination." [laughter] This was a time when bio-medical research was expanding, and he was a classical "crown and bridge" "tooth carpenter" who was not that interested in the biological basis of dentistry. He was among the independent dental practitioners who wanted no governmental interference with dental practice or even dental education, so Columbia did not take any governmental funding for the dental school. Smith was an old fashioned prosthodontist, only interested in reconstructive dentistry and not interested in research. Government funding didn't come to Columbia until, essentially, Rockefeller's Vice-Presidency. [Editor's Note: Nelson Rockefeller served as Vice President under President Gerald Ford]. Then they revamped the whole school and increased the entering class size from forty to sixty-five to seventy students. We started with forty, and I think we ended up with thirty-two in the graduating class. I think my rank was around twenty-eight, [laughter] always near the bottom holding things up. [laughter]

SH: Holding on.

HA: Yes, but I got through and passed the NYS and ADA National boards, and when I was in Alaska I took and passed the Alaska Territorial Boards. Oh, I also took and passed the New Jersey Dental Boards, when I returned to NY. You might say I was not a "constipated termite" because I passed all my boards! [laughter] I told Dr. Zegarelli of my interest in pathology, and he urged me to pursue my interest. I talked with Dean Smith, as I said, and there was no going anywhere with him. I even applied to Johns Hopkins, but they didn't even have a dental school! [laughter]

SH: Were you just hopeful or what?

HA: But, anyway, I went on. Yes, I applied to NIH, and learned they had just started a program in oral pathology training in 1958, when I applied, and they were very interested in me as I had served previously in the PHS. However, they did not hear from me after they had sent me a form to complete. Apparently it was sent to me at Columbia Presbyterian Medical Center, and it sat in the mail room for about a month unknown to me. In the meantime I sent them a telegram I hadn't received the form, but it was too late. They had gone on and chosen someone else. [laughter] This was my typical course in life. So, Ziggy, as we called Dr. Zegarelli, took me on his staff, and I volunteered in the Stomatology or Diagnosis Clinic. We did not receive a salary as a volunteer, but there was an opening for a dentist at the New York State Psychiatric Institute, where I had worked previously as an attendant while going to school. It was to fill in for a

dentist who had developed oral cancer from smoking and alcoholism. In the inimitable words of Dr. Zegarelli: "It was just retribution!" He got oral cancer, and here he was a dentist and supposed to understand that abuse of alcohol and tobacco led to oral cancer. We knew then (in 1958) very well that the two major factors associated with oral cancer were alcohol and or tobacco abuse. Half of all hospitalizations are directly or indirectly related to tobacco and alcohol abuse. Oral cancer, which accounts for two to four percent of all cancers (more in males), was deemed an education responsibility of dental schools, and tests were given in dental school to define the proficiency of dentists to detect oral cancer. There were many initiatives undertaken when I was in dental school. In fact, many of the dental schools were created in this post-war period to educate the public and to provide trained dental professionals to tackle these oral health problems. As a consequence federal, state and private initiatives were undertaken to address this problem, and many new dental schools, especially in Appalachian states, were created, including the University of Kentucky Dental School at Lexington, a new dental school at the University of West Virginia, a spin-off from the University of Maryland, Fairleigh Dickinson University and the New Jersey College of Dentistry to name a few. Throughout the country there was a huge increase in federal funding of medical and dental schools and hospitals through the Hill-Burton Act [passed in 1946, which provided aid to improve hospital facilities]. Funds were made available for hospitals, matching grants, capitation grants for the number of students in medical and dental classes, etc. At one point, until there was a cut back in some of the funding, NYU had so many students, especially from foreign countries, in their night school and weekend course work that they were producing about eleven percent of all the dentists in this country. Their course work was particularly designed for foreign-trained dentists to pass the NYS dental boards.

SH: Really?

HA: At one time, Ohio State University was the largest dental school, with several hundred dental students per class at one point. [laughter] Of course they have cut back, in part, because it ultimately reflected supply and demand and, in part, the reality of what was needed. In fact, this 'oversupply' actually fed the specialties of dentistry which helped them to develop. That is what benefitted me in going into the diagnostic specialty of oral pathology. How do you treat if you don't know how to diagnose? And the gold standard of diagnosis is and always will be pathologic study of the tissues. Of course, the government came along with all kinds of mandates to appease all the specialty interests and minority groups; they mandated education time to cover, geriatric dentistry, temporo-mandibular joint problems, dental treatment of the handicapped, etc. [laughter] I can't even begin to name all the politically-correct, government-supported specialized interests. These became mandates in the funding programs and the teaching programs, so the schools had to hire people to concentrate on these needs. The government got into the business of virtually regulating everything that was taught, including the number of hours on each subject. You are seeing the same thing in medical schools as well, and I might add, everything else, not that these were profoundly bad ideas. They have a basis, but the problems in government are always local. It reminds me of when the PHS took over the Alaska Native Health Service. They had an investigation in Alaska as to why the annual budget was used up in several months. They hadn't figured on the problems of local transportation where you have to fly five hundred miles to get from Fairbanks to Point Barrow or the outlying villages. It costs money to transport equipment and personnel. [laughter] Government has

wonderful planners until the rubber meets the road and real people have to do something! [laughter] The essence of freedom, I have always believed, is to tolerate the folly of others, but not to pay for it! [laughter] That's one of my gems after eighty-two years of living. And government is, unfortunately, filled with many foolish people who try to impose their folly on others. I was brought up to be very tolerant, long before the civil rights movement, EEO (equal employment opportunity) and all the other great egalitarian initiatives, but I tried not to be used by these groups, and I tried to remain as independent as I could.

SH: I thank you for that. [laughter]

HA: It's freedom people want, and freedom depends on two things, as far as I am concerned. One is *RESPECT FOR ALL LIVING THINGS AND THE ENVIRONMENT* (including plants as well as animal). The other is *TRUST*, because trust is the most sacred covenant that can exist between two entities. Once you have respect and trust, you are free, I believe. There are many other attributes to freedom, and we have come a long way in this country trying to define freedom and remain free. There are so many political demagogues now, and as far as I am concerned, they are invariably self-serving, self-fulfilling, indeed, supremely selfish (often psychopathically paranoid) lawyers. It seems as though that 'profession' attracts vengeful, paranoid types who seek to get even; they lack a real understanding of moral initiatives or fair play. It reminds me of Diderot's aphorism; "Mankind will never know freedom until the last king (read politician) is strangled with the entrails of the last priest (read lawyer)!" I just wish they could do something about the lawyers, as lawyers are making laws to keep lawyers busy!

[TAPE PAUSED]

SH: Are you ready?

HA: Yes

SH: Okay.

HA: I just want to end a little bit with the change in my career. I had been exposed to the Clinical Center for about seventeen or eighteen years, and I realized how powerful politics were. The Clinical Center at NIH was built, essentially, with one thing in mind, and that was to provide the best, state-of-the-art medical care for the politicians in the Senate and House and the insider bureaucrats. I never realized the extent of political intrigue until I was in training at NIH in oral pathology, in 1960 to 1962. I came back from taking course work at Georgetown Medical School one afternoon, (Dr. Rath's course in "Mechanisms of Disease" which was an excellent basic science course in the second year), and some staff people asked, "Where have you been? Dr. Stanley (my mentor) is looking for you. He's down in the clinic, go down there right away." I went down, and he wanted to know where I had been; I told him I had just returned from Georgetown. He said, "Look at this radiograph [X-ray]. What do you see?" I had taught clinical radiology at Columbia, so you have to check that you are looking at the correct side and orientation, and I said, "Well, it's a lower left first molar with a full crown coverage, and it has an area of periapical pathology that is a symmetrical radiolucent area, most probably a periapical abscess." "Well you better be right, because it is [HEW] Secretary Ribicoff, and he's in the

dental chair in the next room, where Dr. Ralph Lloyd, the Clinic Chief, was doing endodontic treatment on the tooth. [Editor's Note: Abraham Ribicoff served as a Senator from Connecticut and was the first to promote John F. Kennedy for President, who then appointed him Secretary of Health, Education and Welfare.] Well we were right, and the dentist who did the root canal, Dr. Ralph Lloyd, did it very well and it was successful without complications. Both Dr. Lloyd and my mentor, Dr. Harold Stanley, were graduates of the University of Maryland Dental School, the first and oldest dental school in the country, originally founded as the Baltimore College of Dentistry in the 1840s. Dr. Chapin Harris, its founder, organized the first dental school, the first dental association and the first dental journal. If you go back over the archives of Secretary Abraham Ribicoff, who was the first promoter of Kennedy for President, you will see him testifying before Congress on the education bill, and you will note him holding his left jaw. [Editor's Note: The Department of Health, Education and Welfare, established in 1923, is now the Department of Education and the Department of Health and Human Services.]

SH: Right.

HA: You will see Ribicoff sitting there leaning on his left jaw with a handkerchief (loaded with ice). It was the only thing that reduced the pain. I had returned from Georgetown, and there at the front entrance to the Clinical Center was a stretch limousine waiting for the Secretary. When I went to the office I found out what was going on. [laughter] So, I realize you have to be in the right place at the right time (and do the right things). I happened to be there at the right time, because Dr. Lloyd was soon appointed the next Assistant Surgeon General for Dentistry in the PHS, skipping over the next (presumed) chief dental officer, Dr. Frances Arnold. Dr. Arnold was the head of the National Institute of Dental Research at the time, and a renowned researcher and figure on fluoridation. My boss, Dr. Stanley, a good friend of Dr. Lloyd, was appointed head of the newly formed Laboratory of Oral Medicine, and I got an extension of another year of training at the Armed Forces Institute of Pathology. At that time, they went "whole hog" in training oral pathologists. I must add an anecdotal comment; Secretary Ribicoff had the lower left first molar originally crowned in the old days when they did not understand the necessity of water coolant when the tooth was being prepared for a crown. It was done by a Dr. Lew Fox, a periodontist, on the staff of Columbia University's School of Dental and Oral Surgery, and a founder of the University of Connecticut Dental School. My mentor, Dr. Harold Stanley, set the requirements for operative dentistry in his research on pulp pathology and then the biological requirements and guidelines for the development of all dental materials used in restorative dentistry. Had his work been done a decade or more earlier, Ribicoff might have been spared such painful suffering. Another anecdotal tale I need to tell showing the power of politics, is that, when Lyndon Johnson had his landslide victory over Goldwater in 1964, he made an off-the-cuff remark just before his news conference the following morning: "Watch out, here come the run or ruin boys." [Editor's Note: Johnson defeated Barry Goldwater, a Republican, in the 1964 Presidential election.] He was referring to the new layer of bureaucracy that the Democrats put in place with the creation of the new Departments of Education and Health and Human Services under Kennedy. This was required, I suppose, with the expansion of Medicare/Medicaid programs, and they were to be run by the "run or ruin" boys! These are the established, highly- paid, upper-level bureaucrats whose jobs are relatively safe. About the time of [President Richard] Nixon, which was, what '68? yes, the Dental Institute was in turmoil because of the uncertainty of its direction and the Director, Dr. Francis Arnold, had become an

alcoholic and ultimately died during an operation. Alcoholism was rife in the government, I believe, partly because so many had to deal with the horror of "political incest" and manipulation. The NIDR named Dr. Seymour Kreshover (a triple degree -DDS-MD-PhD researcher), who was the intramural director, as the next director. They then had to find a replacement for the intramural director. Once again, we have to go back in history and look up specific names and dates, because they brought in somebody not trained or familiar with dentistry to guide the dental research, which was now flourishing in many different areas with multiple programs. They brought in one Dr. Richard Greulich, a PhD researcher from UCLA. That name doesn't mean anything to anyone, but it struck a chord with me. There was, in the old Federal Security Agency, an advisor to Esther Peterson (who worked with Wilbur Cohen, the father of Social Security in the Roosevelt Administration and who had come with FDR from NYS to head up the FSA), and his name was William Greulich. Peterson was, I believe, a pediatrician and headed up the children's bureau, as I recall.

SH: I think so.

HA: She had a professional degree. You can look this up later, but her advisor was Dr. William Greulich of the well-known Todd and Greulich Atlas, that was done at Columbia, on childhood development; I think this was the name of the atlas. [Editor's Note: The Greulich and Todd-Pyle's *Radiographic Atlas of Skeletal Development of the Hand and Wrist*]. He was still a power house in this socialized medicine drift. His son, Richard, came from the University of California in Los Angeles and was dropped in as Intramural Director of NIDR. He was of the same mind set as his father and the old socialists who dismissed dentistry as a technique you turn over to high school kids. "You don't need this sophisticated and expensive education. You do what the Germans do. You have stomatologists with medical degrees who are 'real doctors' and you turn this mechanical stuff of dentistry over to high school kids who are trained to "drill and fill" and maybe, "yank and pull" a few things. The rest is handled by medically trained stomatologists. Well, that's the Germanic way of thinking and much as it is done in Europe. Fortunately, Columbia and dental education in this country did not succumb to that mentality. When Dr. Gilbert Smith, the son-in-law of Grayson Kirk, President of Columbia University, became Dean of the Dental School, they were able to create a separate faculty of dentistry independent of the medical faculty. Prior to that, there were only four dentists on the Faculty of Medicine of the College of Physicians and Surgeons which consisted of about twenty-five members. This is all intertwined with the evolution of the professions and the singular nature of dentistry. I, in a small way, played a significant role in helping to identify the professional nature of dentistry and its' role as a specialty of medicine that so many of the "*intelligentsia*" or "*Brains Trust*" saw only as technical dental "dodo's." We residents in oral pathology at NIH were brought in as a group, knowing there were a lot of unanswered questions and a lot of research to be done. After completing my residency of two years at NIH, I was sent to the Armed Forces Institute of Pathology on the Walter Reed Hospital campus. I had never heard of it before. The AFIP was an outgrowth of the old, post-Civil War, Army Medical Museum, that, under President Eisenhower, became the AFIP after World War II. Its mission was research, education and consultation. It is a world class reference center for pathology, not only for the armed forces, but for all pathologists in this country and overseas. It was a pathology referral center that ran registries of the various sub-specialties (of which oral pathology was one of the very first ones created in the 1920s), so it received and processed specimens from private and public hospitals,

the VA [Department of Veteran Affairs], the Army, Navy, Air Force, and whatever. The contributors would send slides, blocks and tissues with their pathology reports to the AFIP in Washington, DC, on the Walter Reed Campus [Walter Reed Army Medical Center] for review and agreement (R & A) or correction. I had a stamp [Dr. Archard makes a stamping sound], "R & A," if I agreed with the diagnosis and accepted their pathology report and had no questions about it. Why this procedure? because I was the reviewing specialist in dentistry overseeing dental and oral diagnoses. Some of these cases represented some of the most unique and unusual examples of cranio-facial disorders known, things that only a specialist would know about.

I have often thought that the PHS saw the demise of the professions of medicine and dentistry in the hands of the socialists, as coming upon them at some point, and they needed to prepare the best they could for the future, knowing that a politician, like Lyndon Johnson, would put in place some committed socialist to run things. Well, Richard Greulich, like his father, was the committed socialist. Within a year of his arrival at NIDR as the intramural director, I was shipped off to Alabama, to the Institute of Dental Research at the University of Alabama (UAB) and he contracted out much of the clinical dental program. However, within another year, Richard Greulich was out of NIDR, but very soon reappeared as the intramural director of the National Institute of Aging, a lateral move arranged by the insider socialist clique. I always thought it a fitting irony that a committed socialist should oversee aging. I went to UAB with my retiring NIDR lab chief, Dr. Harold Fullmer, who was appointed Director of the Institute of Dental Research at the UAB. I learned electron microscopy and did ultrastructural research on human oral mucosa. Dr. Fullmer was a very intelligent and hardworking histochemist who had worked under the renowned NIH histochemist, Dr. Ralph Lillie. Histochemistry was all the rage when I went to NIH in 1960, as it was chemical staining of tissues that were the mainstays of identifying many cell structures and components. In fact, I met my wife, Joan Lamkie, when she worked for another noted histochemist, Dr. Marvin Burstone, on the hall where I worked. He wrote a text on enzyme histochemistry in which she is given credit in the forward with my last name. [laughter] Anyway, the reason I point all this out is that we do not realize how tortuous the process of freedom and democracy is in the hands of the devious, self-serving politicians reaching into all phases of our life and even into science. [laughter] We, as a professional sub-specialty of dentistry, almost did not make it except for some of the research that many of us did in oral pathology. While at NIH in the early 60s, I had been approached by Dr. Eugene Van Scott, who was head of dermatology at the National Cancer Institute, to write the section on oral (mucosal) pathology in a forthcoming textbook by Thomas B. Fitzpatrick of Harvard, entitled *Dermatology In General Medicine*. Dermatologists wanted their own research institute, like NIDR, as did many of the specialty areas of medicine for purposes of increased federal funding. I did a very comprehensive study for the dermatologists on oral mucosal diseases and organized it in a very logical way, such, that I received independent letters of commendation that were unsolicited! [laughter] Actually, I was rather shocked at how well it was received, but I had very good training under Dr. Harold Stanley at NIH, Dr. John Cornyn at the AFIP, and many others as well. NIH and AFIP training were priceless and privileged opportunities, and I did the best with them that I could. My experience at the AFIP was extended a second year, as I had written some papers that were good at the time. Everything at that time was *Publish or Perish*! Then I returned to NIH and worked in Dr. Stanley's lab. After he retired, (he took his twenty year retirement and went to the new University of Florida Dental School), I ended up in the Laboratory of Experimental Pathology, under Dr. Harold Fullmer, as Chief of a Section of Diagnostic Oral Pathology. This is when Lyndon Johnson was still President, and all the PHS

training programs came to an end as it was during the Vietnam War. So, these elective things were sort of pushed to the side and training programs came to a cease. It was during this period that the Dental Institute was in turmoil and searching for direction, so it was left in the hands of the insider socialist elitists, like Dr. Richard Greulich. He arranged for me to be, as he said: "put on the *back burner*" and shipped off to Alabama as they eliminated the clinical dental activities. He was eventually shunted over to the National Institute of Aging, which seems rather apropos for a socialist, [laughter] where their quaint ideas of how things should be, could be applied to the aged and others who were not in contact with reality. It was with my writing, in part, about the professional responsibilities of dentists in the leading McGraw-Hill textbook on Dermatology, that posed a real problem for these social elitists as to how they were to approach dentists and dentistry: as "oral mechanics" or as professionally trained "physicians of the mouth." Almost all the senior editors are deceased now, including Dr. Thomas B. Fitzpatrick, who was the Wigglesworth Professor of Dermatology at Harvard. I did the oral pathology part of it for the first three editions (the first at NIH, the second at UAB, and the third at Stony brook). I was not getting any support at Stony Brook, so I gave Dr. Fitzpatrick the opportunity after the third edition to find someone else to do the oral disease section. [laughter] I believe we were pawns in a rather vast operation to demonstrate to the elitists (therefore the socially-oriented politicians primarily in the Democratic Party) that dentistry was a profession with its own unique problems and challenges and its own research priorities. The PHS Commissioned Corps was an expendable personnel system in this political battle, that had to be replaced by the more ponderous (and I might add, parasitic) bureaucratic Civil Service. There is a cadre of middle management ideologues entrenched in the federal government who know just how you should live; they are the heritage of the "Brains Trust" of the Roosevelt era. They are what my father referred to as "book taught billigans" who are socialist-oriented and had never met a payroll and they didn't know what competition was all about. [laughter] So, I thank my father for having taught me the dirty little word of "competition," that is, "supply and demand and survival of the fittest." [laughter]

SH: When did you go to Stony Brook?

HA: When I retired from NIDR in 1979. I had spent five years at the Institute of Dental Research in Alabama with my former lab chief, Harold Fullmer, where I did electron microscopy and wrote papers there and revised the textbook contribution. My main thesis and research pursuit was oral mucosal diseases, [diseases associated with the area of the mouth bathed by salivary secretions]. I published the very first article in the first issue of the Journal of Oral Pathology, a Munksgaard publication, that was started by Dr. Harold Fullmer with Dr. Jens Pindborg of Denmark. I returned to NIH in 1978, and began to realize how I had been a pawn in a much bigger game of health politics; it was obvious that the NIDR was fully under control of the socialist/Democratic types of the Civil Service bureaucracy. I spent one more year (in isolation) at NIDR and retired in 1979, when I contracted to go to Stony Brook as a tenured Associate Professor in the Department of Oral Biology and Pathology for a fairly decent salary at that time (about $40,000 per year). The department at Stony Brook included a dozen or more research-oriented, primarily Canadian dentists from Manitoba, created by Dr. Israel Kleinberg from the dental school at Manitoba. They were mostly Jewish emigres, and I was the sole oral pathologist; I was supposed to create my own 'department' from grants and outside funds, as they were only interested in their oral biology pursuits! The American Dental Association required

oral pathology education with board tests, but there were no "oral biology" board exams. Why did I take the job? Simply put, I saw no future in the NIDR under the Carter administration and the civil service socialists, and, well, I had to pay MIT [Massachusetts Institute of Technology] tuition for my daughter! [laughter] She entered in 1981, in the aerospace and aeronautical program and graduated in 1985. Tuition went up every year that she was there, but it was worth it. My mother would have been very proud of her, as she would have made a great engineer herself. I knew perfectly well from my father what inflation was all about, but I learned just how the "run or ruin" people were determined to keep it going with deficit spending.

SH: Wonderful.

HA: I made my money, actually, not in my career of dental research or education. I made it in very good investing. [laughter]

SH: Is that not ironic?

HA: Yes, it is rather ironic considering my origins. [laughter] No, I've put together several million in my portfolio, mostly from having listened to my father's conversations with my mother at the dinner table in the '30s and '40s and his harrowing Wall St. experiences. I kept quiet, as I was expected to, but I listened carefully.

SH: Congratulations.

HA: And I stumbled into it, [laughter] but I had a very good advisor early on. He was a recent Columbia Business School graduate, one Robert Milam, who started at Harris Upham, in Bethesda, Md. He gave me a fundamental education in investing and encouraged me to read "Extraordinary Popular Delusions and the Madness of Crowds" by Charles MacKay. He also gave me a typewritten list of companies, mostly small over-the-counter companies like the ones my father dealt in, as I had expressed my interest in stocks listed on the NASDAQ, [National Association of Security Dealers Automated Quote]. One of the companies he recommended was a little company that put "hope in a bottle," what Elizabeth Arden or maybe it was Helena Rubenstein called her cosmetics: "hope in a bottle." Well, the company was Noxell Corporation that made Noxzema. [Editor's Note: In the 1920s, pharmacist, Dr. George Bunting, invented Noxzema, a skin cleanser commonly used by women to remove make up. Bunting founded the Noxell Corporation, which was led by his family until the company was acquired by Procter and Gamble in 1990.] It was the Noxell Chemical Company, in Baltimore, or Hunt Valley, Md., and I started investing in it, buying it for twenty to thirty dollars a share. Then the market collapsed in the 1974, Oil Embargo, when I was in Alabama, and I then bought it at five to seven dollars a share, dollar averaging. Before the embargo I had accumulated 125 shares, and it split two for one, so I had 250 shares. I kept adding on to it after the price dropped and got it up to 1,000 shares. I really don't want to say what happened.

SH: No, please.

HA: Well, it split 2 for 1, then a few years later, it split 2 for 1 again and then another 2 for 1 split, and then I realized I better take some off the table, so I sold 500 shares at $60/share and

generated about twice my original investment. Then suddenly, it was taken over by Proctor and Gamble, and what did that company do? It split three more times at a 2 for 1 ratio.

SH: Good for you.

HA: P&G raised its dividend nine and a half percent last year and nine percent again this year. I now earn every quarter more than what I originally invested in Noxell. Now that is what I call "keeping abreast of inflation"! I proceeded to take the earnings and invest in other companies, including Showboat, which was another winner when it was bought out by Harrah's Casino.

SH: Is there anything you want to leave, a parting message, before we turn this off?

HA: No, only that I got a very good start here, thanks to Rutgers and the Land Grant College Acts. And I want to thank all of you dedicated workers here as well as the innumerable great professors and teachers here at Rutgers, as any success I have ever had is attributable very much to their efforts. I believe Rutgers is one of the world's greatest universities, perhaps due, in part, to "William the Silent" and the "*Devotio Moderna*" movement of the 15th and 16th centuries. This "*Devotio Moderna*" movement and "William-The-Silent" are described very well in Jonathan Israel's work: "*The Dutch Republic, Its Rise, Greatness and Fall, 1477-1806*." The constructive efforts of Western Civilization may well find its roots right there. I will always remember very well and with great fondness, being "on the banks" in those turbulent, post-war times, and indeed, they may have been the best of times! I believe I have lived through the most salubrious era of humanity, when there were just two billion on this planet when I was born in 1929, to the current seven billion, some eight decades later. I have lived through the mechanical/chemical era and into the atomic/electronic era with momentous scientific and social changes. I hope all mankind can appreciate their opportunities as well as their blessings when they come along. I have tried to do just that.

SH: Thank you for coming in and talking with us. [laughter]

----------END OF INTERVIEW----------

Reviewed by Jason Eberight 12/6/11
Reviewed by Evan Hackler 12/6/11
Reviewed by Shaun Illingworth 3/8/12
Reviewed by Howell O. Archard 7/11/12

ADDENDUM-October 2013

In retrospect, I may have described my father in somewhat harsh terms, as he was extremely difficult to get along with, especially for my mother, my sister and myself. He was devoid of any empathy, offering me no advice or career counseling to encourage me to enter his business. He offered me only minimal educational support and was withdrawn from both my sister (who had left the house and was teaching in South Jersey; she had married and turned Roman Catholic) and me. I realized he was extremely self-centered and wrapped up in his work. Much of this my mother attributed to his tormented upbringing by an "irascible Irish Catholic mother," who later took her own life. She described him as being terribly insecure, but not recognizing his narcissistic traits, although she used the term "the male ego" when describing his self-centered behavior and temper tantrums. She was his life-long "psychotherapist," acting to console him and encourage him in his neurotic work in Wall Street. She and I discussed this problem and tried to deal with it the best we could; my mother understood my goal to achieve an education. She got my father to at least provide basic tuition, which he could readily afford, for the three years I was on campus. I lived with them for my first year at the dental school, but he turned me out to live on my own when I entered my second year. He had previously threated my sister and me with disinheritance during his rants and raves, so I thought of education as my only salvation, as I could not depend on him for my future security.

It was only recently that I encountered the work by Sam Vaknin dealing with Narcissistic Personality Disorder, a psychological disorder identified only in the 1980s. His work, *Malignant Self Love: Narcissism Revisited*, describes him [his father] to a T (see pages 36-37). Now, there are many books dealing with narcissistic personalities, such as *The Object of My Affection Is in My Reflection*, by Rokelle Lerner. These "difficult" people tend to make others around them miserable, using them as their "narcissistic supply." We had no idea what my father's problem was all about, but I now realize he suffered terribly from deep-seated narcissism. I do not think he was a paranoid schizophrenic, which I had considered a possibility when I worked as an attendant at the NY State Psychiatric Institute while attending dental school. The more than two years I worked there was most educational for me, as I learned to try to understand human behavior. Indeed, it encouraged me to enter research as I realized most dental problems are the result of neglect and improper diet and improper oral hygiene.