

# Hans Willi Zimmer

## 1921-2001

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### Childhood and Adolescence: 1921-1939

Hans Willi Zimmer was born on 05 February 1921 in Wannsee, an upper class suburb of Berlin, the only child of Wilhelm Zimmer and Martha Schindler. His father was a professional golfer, who after the First World War, became the head golf instructor at the prestigious Berlin Golf and Land Club. The family lived in a small bungalow provided by the Club and Hans' mother supplemented the family income by managing the Club's pro shop.

Among his father's clients at the Club was the former Crown Prince of Germany, Wilhelm III, who became friends with the elder Zimmer and who agreed to serve as his son's godfather. Among the gifts given to young Hans or "Hanschen" by the Crown Prince were a gold tie pin engraved with the royal crown and the initial W and a college fund of 10,000 gold marks. Though Hans retained the former gift his entire life, the college fund evaporated before it could be used, due to the massive inflation that plagued Germany during the last days of the Weimar Republic (1):

*It was during the early thirties that one day I received a money order for the sum of 88 Pfennigs [pennies] addressed to the "student Hans Zimmer." It bore the laconic message ... "This sum represents the amount of your account after devaluation due to inflation. The sum is too small to maintain your account."*

Hans would inherit two passions from his father - golf and stamp collecting. During his travels as an adult he would find time to play golf on courses throughout the world and, by the end of his life, he had collected so many stamps that he would, half seriously, claim that he intended to open a stamp store when he retired. The stamps, however, played another role during his childhood, as he later reported that he had learned much of his early history and geography from them. As a child he also took piano lessons but soon gave them up as "too boring." Nevertheless he retained the ability to play popular songs by ear. Often, after hearing someone hum or sing a melody, or after hearing some appealing tune as background to a movie, he would sit down at the piano and spontaneously play an acceptable rendi-



Hans at age six, complete with bangs, sailor suit, and oriental rug.

tion complete with the proper chording. Later, during the Second World War, this talent would prove valuable, as Hans was often asked to play piano for the officers' club at his air base in western Russia, thus freeing him from more onerous military duties.

When he reached adolescence, Hans developed a taste for the adventure novels of the German author, Karl May, who, though very popular with young boys, was frowned upon by their teachers and parents as a bad influence:

*When I was about 13 or 14 years of age, I knew of this writer. However in school we were not permitted to read books by him. He was an outcast and no decent young man should read such trash ... I can recall that*

*one of my teachers discovered that a classmate of mine had a book by Karl May in his briefcase and, as a punishment, he had to remain after school for two hours. It was my cousin, Irmgard, who gave me as a birthday present - I think it was in 1935 - a novel by May entitled "Der Oelprinz" (The Oil Prince). I started to read it and was fascinated ...*

Hans received his elementary education at a school located near his home in Wannsee. For his secondary education, however, his parents selected the Herder-Real Gymnasium in Berlin's old "Westend." This school had an excellent academic reputation and was favored by many of the Zimmer's far more wealthy neighbors in Wannsee. However, since the Zimmers lacked private transportation, this choice required a lengthy daily train and bus commute for Hans. Consequently, in 1931 the Zimmers moved to a seven-room apartment in the Westend, where they remained until their apartment building was destroyed during the Second World War.

As already noted, many of Hans' school mates at the Herderschule were from wealthy families and, among these, was Harald Quandt, whose father was President of the Reichsbank and whose mother had divorced his father in order to marry Hitler's notorious propaganda minister, Joseph Goebbels. One of Hans' memories of this period was of his entire class attending a birthday party for Harald at the Goebbel's villa on the Schwanenwerder, a small island located in the middle of the Wannsee:

*At 2:30 sharp four large black Horch limousines, each with a swastika standard and chauffeured by uniformed SS-men, arrived to haul us to the secluded island ... Nearing Schwandenwerder and entering the restricted area, SS-men saluted our four-car group and we [including two of Hans' Jewish classmates] all waved back. At the gate an SS-officer received our caravan and guided us to the house. Later on we had a good lunch, a nice big birthday cake, and after dinner Dr. Goebbels and his wife Magda shook hands with all of us and had some small talk. The birthday party ended with the showing of a not as yet released movie and a return trip to our school ...*

In the April of 1939 Hans graduated from the Herderschule with an education that included eight years of French and Latin, two years each of English, chemistry, physics and biology, and a leaving certificate or *Abitur* diploma indicating that he intended to pursue university training in chemistry. However, Nazi law required that prospective university students of both sexes had to serve a six-month *Arbeitsdienst* (literally



Hans at age 10, about the time he entered the Herder-Real Gymnasium

"labor or work service") before beginning their studies, followed, in the case of males, by 18 months of service in the *Wehrmacht*. Originally begun in the early 1930s for the children of members of the Nazi party, the *Arbeitsdienst* was a branch the Hitler Youth Movement for adolescents aged eighteen or older and involved a combination of political indoctrination, para-military training, and community service work, usually as unskilled farm or industrial laborers. In March of 1939, however, one month before Hans' graduation, Hitler passed a law conscripting all German youth into the various branches of the Youth movement irrespective of their political or religious beliefs. As historian William Shirer later noted, in the case of younger children, "recalcitrant parents were warned that their children would be taken away from them and put into orphanages or other homes unless they enrolled" (2).

Failure to comply in Hans' case would have resulted in possible imprisonment and almost certain denial of entry to the university. Unfortunately, a few months after beginning his service, the Second World War broke out and all males in the *Arbeitsdienst* were automatically drafted into the armed forces. Hans eventually ended up as a navigator aboard a heavy duty bomber on the Russian front, where he would serve for the entire duration of the war, from 1939 to 1945.

#### **The War Years: 1939-1945**

Some relief from his six years of military service was

provided by a law signed by Hitler in 1942 which granted an annual three-month leave to members of the armed forces who had served for three years and who could present documentary evidence that they were intending to pursue university training in medicine, chemistry or physics, all of which were now recognized as essential to the country's future. These leaves were intended to allow the recipients to begin their university studies. Hans, however, reported that he initially had trouble applying for the program:

*I will never forget the face of the chief petty officer of my Luftwaffe unit when I submitted my petition for such a leave. "Zimmer, you idiot, this is only for Abiturienten and not for people like you. In your papers it says that you are an unskilled laborer. The only way for you to see a university from the inside is to become a janitor." The unskilled laborer entry in my Arbeitsbuch [literally a "work or employment book"- a document all Germans had to carry during the Third Reich] was the result of my first weekend in the Arbeitsdienst ... The bureaucrat responsible for my employment book was of the opinion that Arbiturient was not a profession and when he demanded what my real designation was, the only answer I could come up with was "unskilled laborer I guess." This stubborn official's attitude and the subsequent entry into my Arbeitsbuch were the cause*



Hans at age 19 in his Luftwaffe uniform - not the student's life he had hoped for.



Hans and Marlies with Hans' pet dog "Jonny." Taken during Hans' winter leave of 1942-1943.

*for the chief petty officer's remark, but fortunately the entry in my gymnasium diploma prevailed ...*

Hans would receive two such leaves to study chemistry at the Berlin Technische Hochschule or TH, the premiere institution in Berlin for the study of science and technology. Each would correspond to a significant event in his life. It was during the first leave, in the Winter Semester of 1942-1943, that he would meet a fellow student of chemistry by the name of Marlies Wunsch, a petite blond with whom he soon formed a romantic attachment. It was during the second leave, in the Winter Semester of 1943-1944, that he was to witness to the destruction of his parents' apartment building:

*The nightly air raids on Berlin became more frequent as the war progressed and, during my second leave, three or more alarms a week became routine. Life in Berlin was actually more dangerous than life at our airfield in Russia ... On this particular night - the night of 30 January to 31 January [1944], there was an unusually severe raid ... Anti-aircraft batteries were booming away, spot lights were sending their ghost-like beams over the sky and the whistling of falling bombs filled the night ...*

The air raid shelter in the basement of the apartment building had a special inner room protected by a heavy steel door, though for most raids the building's inhabitants stayed in the less claustrophobic outer section of the shelter. Since most of the younger men were at the front and most of the older men, including Hans' father, had been drafted into the Berlin Police Force, Hans and the father of one of his former schoolmates were the only males in the shelter on the night in question, the rest being women and children:

*All of sudden I felt very uneasy .... I went to the less fortified part of the shelter and told Mr. H. that I was going into the "fortress" and was going to close the steel door. I asked him to join me but he refused ... "Besides you there is not a single man in this room and your leaving would instill in the women an unnecessary fear" ... "Well," I said, "I don't care what they might think of me or my behavior during this raid, I'm closing the door." With these words, I went to my corner, took my dog [a fox terrier named Jonny] on my lap, and hoped that nothing would happen to my mother who was staying with my sick grandmother about a mile away in a much less secure shelter.*

*I had hardly settled in when, with a big bang, the lights went out and a thick cloud of dust filled the room. After a moment of complete silence, pandemonium broke out. Shrill voices cried "Help, Dear God, We are buried, We want out..." In the meantime someone turned on our emergency light and I could see the damage. The steel door was severely warped and the central auxiliary ceiling support beam was partly broken. Fortunately no one seemed to be hurt and it looked as though the ceiling would not collapse - at least not immediately. Next to me was a pick with which I could break through the lightly closed hole to the neighboring cellar. After hacking out a few of the bricks which served to secure the emergency exit, I found that the next cellar was completely filled with debris. Through the partly ajar steel door I could hear cries for help. After some effort I wiggled through the opening and saw the soon to be Mrs. H. uncontrollably sobbing while kneeling next to Mr. H. He was on his back, blood drops were in front of his nostrils and a trickle of already crusted blood was visible coming from his ears. His eyes were wide open and he was obviously dead ... I started to hack on a second emergency exit but with little success.*

*Anyhow, after about an hour or so, another wall was broken from the outside and we could leave our fortress. The first person I recognized was my mother. She had our dog in her arms and was crying. She told me that, when the alarm was over, she left my grandmother's and walked home. On the way people told her that our complex was hit and that no one had survived. When she arrived at the pile of rubble at the location of our basement she found that our dog, Jonny, was standing on top of it and was whining pitifully. I, as well as our rescuers, could not figure out how this little creature had gotten out.*

Determined to maintain a head start on his postponed university career, Hans would carry his chemistry texts with him throughout the war, using the time between combat and other assigned duties to study. He

even took them with him during bombing raids, including his last run, when the plane ran out of gas and had to be ditched. Although the rest of the crew took food, clothing, and weapons with them after abandoning the plane, Hans chose instead to rescue his textbooks,

### **Post-War Berlin and the University: 1945-1951**

When the war in Europe ended in May of 1945, Hans was recovering from pneumonia in a military hospital in Wurzen, Germany, about 75 miles south of Berlin. Upon hearing news of the surrender, the hospital administration packed the patients into horse-drawn wagons and headed for the American lines to surrender. The American commander, however, refused to accept them as prisoners, claiming that the Yalta agreement forbade him from taking POWs from the future Russian occupation zone. Everyone had to return to the hospital to await the arrival of the Russians. When they made an appearance a few days later, they rounded up the patients and staff and marched them to a detention camp where they were sorted according to their physical condition:

*It was about midnight when this open-air mass physical was concluded. The eight of us who were ordered not to step ahead were marched to a kitchen shack and given a big piece of bread and a cup of cabbage soup. We were then told to lie down and sleep. Early the next morning a young lieutenant took charge of us, led us out of the camp and marched us back to the hospital ... after negotiation with a superior, he said to us in a harsh voice "padjonn" [come with me]. We again went to the highway and started to walk in the direction of the camp. However, after a very short while he led us into a little side path into a wooded area. Here he drew his pistol and said in perfectly good German, "Ihr seid frei, macht dass ihr fortkommt und lasst euch hier nicht mehr sehen" [you are free - get lost fast and don't come back here anymore]. He then fired several times into the air. We stumbled more than we ran.*

Hans later recalled that this was his most frightening experience of the war as he and the other men were certain the officer had taken them into the woods with the intention of shooting them.

Hans and the other seven men decided to make their way to Berlin. Though elated to be free and to have made it through the war alive, they soon realized that their problems were far from over as they had to traverse 75 miles of Russian-occupied territory in their German military uniforms and without any documentation to verify that they had been officially released as prisoners of war. The first of these problems was solved

near the town of Bad Liebenwerder when they were attacked by a mob of displaced workers (non-Germans brought into Germany during the war to do forced labor), who stripped them of their coats, pants, and boots:

*This was the first time that I appreciated the German armed forces policy that every soldier below officer rank had to wear long underwear year round. Here we stood in our long johns and undershirts with no boots and only stockings on our feet ... I was glad that I had packed my felt slippers. I put them on and fastened them to my feet with string. The crowd now dispersed and we continued, in much lighter garb, our journey home. A short time later I spotted a scarecrow in a vegetable patch. Its jacket did not look too bad in spite of the fact that it had only one sleeve - at least it had its buttons and pockets in place. I confiscated it, pulled over my long johns a pair of gym shorts, which I fortunately had in my backpack, and proudly marched on, wearing German high fashion of the spring of 1945.*

It was in this this condition that Hans finally reached home. He weighed only 114 pounds. Much had changed since his last leave. After the destruction of their apartment building during the air raid of 30 January 1944, his parents had moved to a much smaller makeshift apartment in one of the less posh sections of the Westend. His father, who had been drafted at age sixty into the Berlin police force, had been taken away by the Russians, as had most other males (mostly old men and young boys), and his fate was unknown. When he asked about Marlies, his mother told him that:

*"She survived, but suffered terrible things. She is not very well. In spite of this she has already visited me twice to inquire how I'm getting along. She also said that she would come again soon." There was no mail or telephone service at this time. Thus, during the next day, when I was resting in our backyard, I was immensely surprised when a young girl on a bicycle arrived ... It was Marlies. When she saw me, her first words were "What do you want here at this terrible time with all the Russian soldiers running around to look for German men? To all the troubles I have, now in addition, I also have to fear again for you. Why didn't the Amis (nickname for American soldiers) take you prisoner of war? My God, what times are these?" Then she started to cry and finally told me she was very happy that I was alive.*

Marlies' concern about the Russians was real as they continued to arrest and deport males, apparently at random. As long as the Westend remained under Russian control, Hans had to be careful about appearing in

public during the day. A typical incident involved his mother's neighbor and his son, who had gone out one afternoon with a hand-drawn cart to collect fire wood from the damaged buildings:

*About an hour later Mr. Postaremczak returned. He had no wood on his cart but rather the body of his son was lying on it. Through his tears he explained to us that a group of Russian soldiers had stopped them ... When his son tried to prevent one of them from ripping off his wristwatch, the soldier simply shot him.*

The Russians would also conduct surprise night raids on apartments looking for males and on several occasions Hans' mother hid him in the septic tank for the building's toilet system along with various family valuables carefully wrapped in water-proof canvas.

Three months after Hans' return to Berlin, his father reappeared:

*One morning in August of 1945 my mother decided to visit her sister I was leaving for one of my routine wood-collecting trips. When I returned several hours later, I found my mother in tears and pointing to the living room. When I went in I found a frail old man sitting in a chair. I had to look twice to recognize my father. He weighed 98 pounds and resembled a skeleton more than a living person. What had happened to him during his few months as a Russian prisoner he never told us, but indications were that he had been severely beaten.*

In addition to the question of determining who had survived the war and who had not, there was also the ever-present question was how to obtain sufficient food and fuel to survive the coming winter.

*We needed money to buy food, and I needed an identification card from the "Hausobmann," a kind of communist installed conceirge. The Obmann of our apartment house was our neighbor. He was by no means a communist, but the Russians probably chose him because he had a nice Polish name - Postaremczak ... Thus obtaining an identification card posed no problem. Next I had to get food ration stamps. The normal ration was a pitiful: 5 grams of fat, 5 grams of meat, and 150 grams of bread or flour per day, if available.*

Because he weighed so little, the local doctor agree to sign a certificate declaring that Hans had tuberculosis. This entitled him and his mother to an additional ration of milk and vegetables. For the rest they depended on the generosity of friends and neighbors.

When the schools opened in September, Hans was

able to earn extra money by tutoring and, like all Berliners of the period, he soon became adept at playing the black market, where he specialized in cigarettes, rare postage stamps, and "orientals" [i.e. rugs]. After control of the Westend passed to the British, he also found that he could sell off his war medals, including his *Gefrierfleisch* or "frozen flesh" medal for service on the Russian front.

In anticipation that the Technische Hochschule would soon be reopened, Hans and a group of other prospective chemistry students met in the ruins of its chemistry building in August of 1945:

*We were a sorry looking bunch of about twelve persons. Most of the men were former soldiers and wore their uniforms, which were altered to look like civilian clothes. The two women in the group were hardly recognizable since they were dressed like the rest of us in pants and heavy uniform-like jackets. To my great surprise and joy, among the men was Hans Riese, a Jewish classmate of mine. As I learned a little later, three of the other young men and one of the women were also Jewish. They had survived the Nazi terror by living in the chemistry building for more than two years. Professor Schleede, one of the inventors of German radar, protected them by not allowing any search of his department by nonacademic personnel. Our tasks as future students were rather trivial and unintellectual. We had to literally dig out the laboratories from tons of debris. In order to get some heat as winter approached, we built a crude hearth and, since none of the windows had glass, we found that washed Xray films from a nearby hospital could serve as a reasonable glass ersatz.*

It should be noted that Hans' involvement in digging out the laboratories was not motivated solely by scientific zeal as his employment as a "rubble digger" also entitled him to a *Schwerarbeiter* (heavy laborer) ration card and to an increased daily allotment of 25 grams of meat, 10 grams of fat and 200 grams of bread.

In digging out chemicals from the basement, the students soon uncovered an additional source of black market income in the form of two 50 liter carboys of ethanol. After removing the denaturing agents (various pyridine compounds) via distillation over anhydrous zinc dichloride and refluxing over beechwood splinters to remove the residual odors, this treasure was converted into an acceptable synthetic "Schnapps" for sale to the Russians.

These chemical "discoveries" also allowed Marlies and Hans to get married. Rumors were circulating that once the Americans took over they were going ban all marriages between Germans for a period of several years. Marlies and Hans hoped to get married before



Professor Jean D'Ans

this imaginary plan went into effect but lacked the necessary funds to set up a household of their own. Among the chemicals discovered in the rubble by the students was a 25 gram bottle of ethyl p-aminobenzoate - a local anesthetic popularly known as "benzocaine." Among the six students digging in the rubble when this discovery was made was a fellow named Hans Heuer, who spoke excellent Russian and who was aware that a significant number of Russian officers were addicted to the use of cocaine. The normal way of testing black market cocaine was to touch it to the tongue to see if it produced a characteristic numbing sensation and Heuer thought that he could easily pass the benzocaine off as the real thing:

*Well to make along story short, Heuer got 12,000 marks for our "cocaine" and - how this was possible, I don't know - he also obtained from the Russian officers 2000 Ami [American] cigarettes. Since there were six rubble diggers, each of us got 2000 marks and 330 cigarettes. Thus, completely unexpectedly, my part of the loot, together with a few earlier Schnapps deals, made me the owner of more than 5000 marks and meant that Marlies and I could get married.*

Hans and Marlies were married on 26 October 1946 and soon set up a small makeshift apartment.

In 1947 Hans received his *Kandidat Ingenieur* degree (the equivalent of a BS degree) in chemistry from the Berlin TH (Marlies had received hers in 1945) and immediately began graduate work at the same institution under the guidance of Professor Jean D'Ans (3). Born in Piume (now Rijeka Yugoslavia) in 1881, D'Ans

had received his training at the University of Darmstadt. His first position (1906) was as a personal assistant to the famous Dutch chemist, Jacobus van't Hoff, who had been given a research laboratory in Berlin in 1896 by the German government for the study of the famous Stassfurt salt deposits (4). After finishing his university training, D'Ans went to work in industry, where he remained until the end of the war, when, at age 64, he was asked to head the inorganic division of the newly reconstituted Berlin TH (soon to be renamed the Berlin Technische Universität). Hans completed his *Diplom Ingenieur* (the equivalent of an MS degree) under D'Ans in 1948, and his *Doktor Ingenieur* (the equivalent of a Ph.D) in 1950 for a thesis on "The Effect of Aluminum Chloride and Other Halides on the Fries Rearrangement" (5).

D'Ans was appointed as Rector of the university almost immediately after Hans began his graduate work. Realizing that this would leave him little time to direct the day to day research activities of the graduate students in the inorganic division and lacking, because of the disruption caused by the war, the usual supply of postdocs and assistants, D'Ans approached Hans, as one of the older and more mature graduate students, with the proposition that he direct the work of the other graduate students while working on his own thesis. Hans agreed and, with the approval of the faculty, was officially appointed to the position of *Wissenschaftlicher Assistent* (literally "scientific assistant" or the equivalent of an instructor in the American system) in 1947.

The manner in which the events of the war continued to color virtually every aspect of life in post-war Berlin is well illustrated by the case of Hans' first graduate student - a young Polish Jew by the name of Samuel Makower. At the party celebrating Makower's *Diplom Ingenieur*, the talk turned, after the consumption of much "renatured" ethanol from the laboratory's solvent supplies, to stories of the war (6). Hans recounted his experience in the fall of 1943 when he was called back to his airfield from a week's leave in Riga. In order to get back to the base he had been forced to hitch a ride on a German ammunition train traveling between the towns of Molodetchno and Schlobin in western Russia and had narrowly escaped disaster when the train was dynamited by partisans. When he finished his story, Makower began questioning him:

*"When did you say that happened?" "The first week of October 1943," I replied ... "And it happened between Molodetchno and Schlobin?" I answered affirmatively. "Well," he said "during that time I was a partisan and in charge of all dynamiting activities on the railroad*

*line between those cities. Thus, Dr. Zimmer, it was I who bombed you!"*

### Coming to America: 1951-1954

In 1951, as part of its 75th anniversary celebrations, the American Chemical Society invited the International Union of Pure and Applied Chemistry to hold a joint international meeting in New York City known as the World Chemical Conclave. Realizing that post-war economic conditions would make it difficult for many foreign chemists to attend, the ACS launched a massive program designed to provide travel grants. Dr. Erwin Brand of the American Society of European Chemists and Pharmacists, fearing that many of these grants would go to older, already established chemists, and feeling that it was equally important to establish personal contacts with the newer post-war generation of chemists, approached the ACS with an additional plan designed to specifically fund the younger chemists as well.

Known as the "Younger Chemists International Project" or YOCHINPROJ, it received financial support from both the Economic Cooperation Board (part of the Marshall Plan) and the Ford Foundation sufficient to bring 256 chemists under the age of 40 from 27 different countries to the United States for a period of six weeks in September and October of 1951. After attending the World Chemical Conclave in New York City, the participants spent their remaining time in the United



Hans and Ralph Oesper after their first meeting at the Younger Chemists International Project in the fall of 1951.

States in a whirlwind series of tours that eventually included 147 chemical plants, 33 universities, 37 government installations, and 14 research institutes (7, 8).

Hans was one of 35 younger German chemists who were accepted for the program. This event would not only provide him with an indelible impression of the opportunities available in the United States, it would also allow him meet two men who would play an important role in molding his future career. Both were chemists from the University of Cincinnati - Dr. Ralph Oesper, who was not only in charge of organizing the program for Germany and Austria, but also served as one of the tour guides, and Dr. George Rieveschl Jr., who was attending the New York Meeting, and who would eventually become one of Hans' closest friends.

### The Move to Cincinnati: 1954-2001

After receiving his doctorate in 1950, Hans had been promoted to *Plänmassiger Wissenschaftlicher Assistent*, and, in the period 1952-1954, he and his students would publish ten papers dealing largely with organometallic compounds of the main-block elements (9). However, as time passed, it became apparent to Hans that the combination of the rigid, hierarchical German university system and the post-war lack of chemicals and equipment meant that his academic progress would be slow. This realization, coupled with a potential personality conflict with one of his superiors and the favorable impressions of his American trip, finally led him to conclude that it would be to his advantage to seek a position in the United States instead. This was a difficult decision, as it meant leaving friends and family in



Ludwig Audrieth

Germany. Nevertheless, in the fall of 1953 Hans and Marlies arrived at the University of Illinois - Urbana, where Hans had accepted a postdoctoral position with Ludwig Audrieth, an Austrian emigre who specialized in the chemistry of hydrazine and nonaqueous solvents (10, 11).

Paul Jones, who at the time was a graduate student working under Professor Reynold Fuson, has vivid memories of the Zimmers during their Urbana period (12):

*It must have been 1953 when Hans arrived in Urbana to begin a postdoctoral stint with Dr. Audrieth, and Marlies joined him a short time later. It was Bob Hammer, a predoctoral student with Audrieth, who invited me to join him and the Zimmers up in the inorganic lab on the third floor of Noyes Laboratory each day at noon to eat our lunches. I thought it was a great opportunity to practice my stilted German, which was indeed the case, and it was equally valuable to Hans and Marlies, who were furiously boning up on English at the same time.*

*At my first, painfully embarrassing, encounter with Marlies, I pulled a superb faux faux. Instead of greeting her in German with "Es freut mich sehr Sie zulernen" (I am so glad to meet you), I got my verbs mixed up and said, "Es tut mir leid, Sie kennen zulernen" (I am so sorry to meet you). That might have been the end of a budding friendship had not Marlies, in her inimitable cordiality, immediately sensed my unintentional blunder and cheerfully corrected my German with her winning smile and the assurance that "No, no, no, you mean to say ..."*

*Bob and I ate sandwiches for lunch, while Marlies came with more imaginative menus of chicken (cooked in the lab), fresh lettuce, and fruit. As a result of our lunches I learned how German should really be pronounced, rather than the way it had been done in a stultifying undergraduate college course. Hans was a strict task master for emitting the "r" from the back of the throat and whistling the "ch's" so they didn't sound like "k." At first Hans was hesitant for us to use first names, but it didn't take long for him to loosen up on that point. He even nicknamed Bob "Jayhawk," because he was from Kansas, and that moniker stuck.*

*Hans and Marlies roomed in the home of a German lady just a few doors from the Audrieths. Bob and I joined them and their landlady one evening before Christmas, and when their hostess went to the piano to play "O du selige," we all were all painfully homesick for a German Christmas - even those of us who had never been abroad!*

*One day Hans came rushing into the organic lab where I was a TA. He was writing out his first check and wanted to know whether there was a hyphen in*



## HANS WILLI ZIMMER

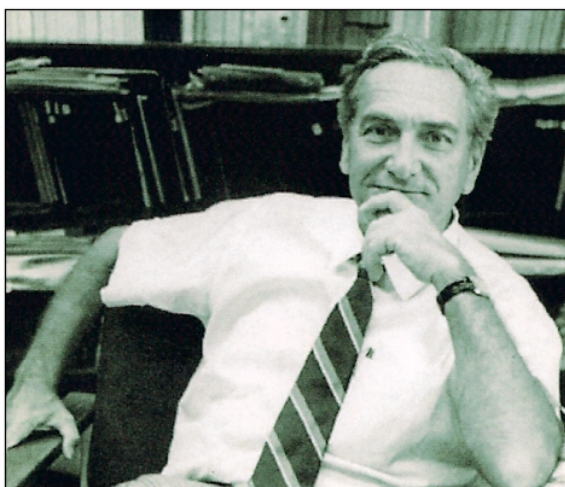
*“forty-four.” What a steep learning curve it was for the Zimmers and how quickly they climbed to the top. While Hans and Marlies were sopping up everything about their new culture, I gained, thanks to them, a love and respect for things German, and that experience has sustained me ever since.*

At least six publications on hydrazine chemistry would result from Hans' year at Urbana, two of which also included Marlies as a co-author (13).

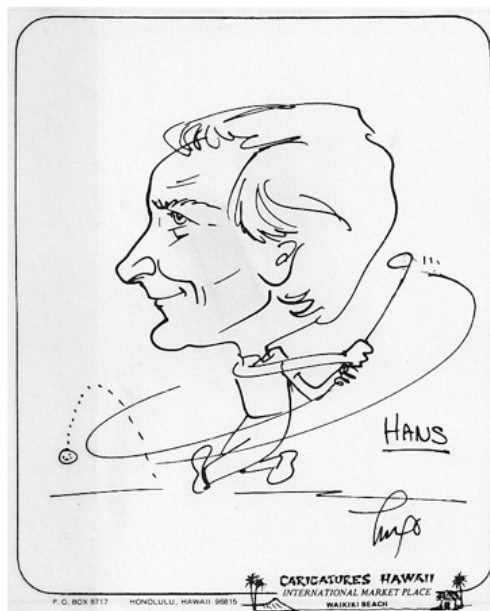
On hearing that Hans was back in the United States and was hoping to obtain a permanent position here, Ralph Oesper approached Hoke Greene, the head of the Chemistry Department at Cincinnati, with the suggestion that he hire Hans. A great admirer of German science and culture, Oesper had maintained extensive contacts with German chemists throughout the 1920s, 30s and 40s as a result of his translation and book collecting activities (indeed, at one point in his career he had supplemented his income as Professor of Chemistry by also serving as Professor of German at the Ohio Mechanics' Institute), and there is no doubt that he considered this as an opportunity not only to hire a first-rate German chemist but also to add a touch of international flavor to the department.

Hoke Greene agreed, and in the fall of 1954 Hans accepted the position of Assistant Professor of Organic Chemistry at the University of Cincinnati. Here Hans would remain for the next 47 years, passing through the usual academic ranks (Associate Professor 1957, Full Professor 1962, Chair of the Organic Division 1958-1972, etc.) and raising his family (the Zimmer's only child, Hans Jr., was born on 20 March 1962).

During the early years Marlies frequently worked with Hans in the laboratory, and in 1957 she received her MS degree from Cincinnati for work done under



Hans in a typical pose in his office, circa 1988.



A caricature of Hans indulging in his favorite pastime during a trip to Hawaii.

Hoke Greene and Glenn Brown. From 1955-1964 she also served as the chemistry department librarian.

Though the strong German heritage of Cincinnati made the Zimmers' adjustment to their new country less stressful than it might have been in some other American city, the fact that many of the more traumatic experiences of their adolescence and early adulthood were largely off limits as topics of causal conversation must of been a source of strain. Indeed, through the years Hans would occasionally attempt to share his war experiences with students and colleagues, but these forays into the past were not always received with the best of grace. However, in 1973 Hans was elected to the Literary Club of Cincinnati where he finally found a forum for articulating his experiences in the form of the biannual reading of a personal essay required of each member. Here, where, ironically, his audience included many men who had fought in the American army against Germany, his experiences were accepted for what they were - the tales of what had happened to an individual soldier caught up in events beyond his personal control (for Hans never attempted to provide excuses for what had happened during the war or to place blame, but rather always restricted his stories to what had happened to him personally).

In 1998 Hans was diagnosed with skin cancer. Despite the strain of chemotherapy, he continued to maintain his work schedule and appeared to be his usual dapper, cheerful self. Consequently, it seemed almost unexpected when news of his rapid decline came three



Hans receiving the 1971 Cincinnati Chemist of the Year Award from Bob Johnson of Xavier University as Dick Day (far left) and George Rieveschl (far right) look on.

years later in the spring of 2001, followed by his death at age 80 on the 13th of June.

### Professional Activities

In his 50 years as an active chemist, Hans would author or coauthor 225 research papers, 17 chapter-length reviews, and 16 patents. He would also supervise the thesis work of 66 masters candidates and 78 doctoral candidates - a departmental record. Though ostensibly trained as an inorganic chemist, the bulk of his research would be in the field of organic chemistry and can only be described as eclectic. In addition to the themes of main-block organometallic chemistry and the organic chemistry of hydrazine derivatives, he would also do work in organophosphorus chemistry, lactone chemistry, acetylene chemistry, and electronically conducting organic polymers.

Throughout his career he would maintain active contacts with the German chemical community and would serve as Visiting Professor of Chemistry at the Universities of Mainz (1966), Bonn (1967), Bern (1971), Stuttgart (1983), and Berlin (1994), as well as at the Gmelin Institute in Frankfurt (1979, 1980). As an editor for *Gmelin*, the *Methodium Chemicum*, the *Annual Reviews of Inorganic and General Synthesis*, and the chemical monograph series published by the Georg Thieme Co., he would also provide publication opportunities for many of his colleagues.

Winner of many local honors, including the Sigma Xi Distinguished Research Award (1964), the Cincinnati Chemist of the Year Award (1971), the Distinguished Scientist Award (1989), and the Rieveschl Award for Distinguished Scientific Research (1990), he

was perhaps most proud of the Commander's Cross of the Order of Merit given to him by the Federal Republic of Germany in 1990.

There is little doubt that Hans more than fulfilled Oesper's expectations of bringing an international flavor to the department. In 1966, for example, he organized a symposium on ylidy chemistry for the University of Cincinnati Research Foundation which brought many important European and American chemists to campus, including Georg Wittig of the University of Heidelberg, discoverer of the Wittig reaction and future Nobel Prize winner (1979), and in 1988 he arranged for a student exchange program with the University of Stuttgart which annually brought groups of first-rate German graduate students to the department. Regrettably this program was discontinued shortly before his death. However, in keeping with the spirit of international exchange which Hans initiated, Marlies, Hans Jr, colleagues, former students, and friends have endowed the Hans and Marlies Zimmer International Scholar Fund in his memory which will annually support an extended visit to the department by a foreign chemist nominated by the faculty. A more fitting tribute to Hans' legacy can hardly be imagined.



Hans after receiving the Federal Republic of Germany's Commander's Cross of the Order of Merit in 1990.

**References and Notes**

1. All quotes, unless otherwise indicated, are from Hans' unpublished essays, most of which were written to be read before the Literary Club of Cincinnati, of which Hans was an elected member. These essays have been collected together in the final volume of his collected papers. See C. Striley, Ed., *Collected Papers of Hans Zimmer*, Vol. 3, Oesper Collection, University of Cincinnati: Cincinnati, OH, 2003.

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6. Makower's thesis later formed the basis of publication

7 in C. Striley, Ed., *Collected Papers of Hans Zimmer*, Vol. 1, Oesper Collection, University of Cincinnati: Cincinnati, OH, 2003.

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10. L. F. Audrieth, B. Ackerson Ogg, *The Chemistry of Hydrazine*, Wiley: New York, NY, 1951.

11. L. F. Audrieth, J. Kleinberg, *Non-Aqueous Solvents: Applications as Media for Chemical Reactions*, Wiley: New York, NY, 1953.

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13. Papers 10-11 and 13-16 in reference 6.

**Publication History**

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