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Engineering

Mechanical and Industrial Engineering

Seichi Konzo Papers, 1927-1993

Box 1:

Record of Activities in Department and Resumes, 1929-1970

Personal and Administrative Correspondence, Awards, Nominations, 1952-1993

Photographs - Individual, Family, and from Award Ceremonies

News clippings, Programs, 1957-1985

The Tyee, University of Washington, 1927

Award Certificates and Diplomas, 1927-1971

Handball Court Plaque Dedicated to Seichi Konzo Photos, 1971

F. Paul Anderson Gold Medal and Letters of Congratulations, 1973

Award from American Society for Heating, AC, and Refrigeration and Recognition on 50th Anniversary at UIUC, 1973-1977

College of Engineering Alumni Honor Award, 1975

M&IE Class, Classroom, Laboratory, and Individual Student Graduation Photos, 1947-1959

Dial Club, 1930-1980

Bull Ring 50th Anniversary, 1991

M&IE Alumni News Articles, 1978-1992

Mechanical Engineering Class Rosters with Grades, 1945-1970

Tape Recorded Interview, June 30, 1967 (3 3/4 IPS) (For interview questions, please see the pages 6 and 7 of Finding Aid.)

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What outstanding new faculty members came in civil engineering and mechanical engineering departments, and how did Willard's interest in engineering continue to influence the College of Engineering when he was President? The early start in the mechanical arts was flourishing when I came. I thought that this was primarily an engineering and an agricultural institution. In the middle 20's, Engineering was in full bloom. People at Washington recommended Illinois as Number 1. Some of the men who were outstanding faculty members along with Willard in the heating and ventilation field, were Goodenough in thermodynamics and Leutwiler in machine design were the triad that formed the basis of the mechanical engineering department. Hamm in machine design, McIntyre in refrigeration and Kratz in research were also outstanding.

37 - 96 What outstanding pieces of research came out of this period?

Early projects were practical or development projects. This changed in the 1930s. Goodenough had a strong influence on the application of thermodynamics. he was instrumental in the development of the new concept of equilibrium thermodynamics combustion engineering. He was 20 or 30 years ahead of his time. Willard was more of a practical engineer. His projects were often on the spectacular side. He generated ideas for the department. He developed the

fundamentals of ventilation for the Holland Tunnel. The development of the Holland Tunnel was split into 3 parts. Pittsburgh, Harvard and Illinois were involved in the research. Kratz was a leading experimentalist, Goodenough was an outstanding theoretician. Prof. Day was the active engineer in charge. This team of four developed the method of air distribution in a tunnel that contains carbon monoxide. Willard was alert to the impact of engineering research on industry. Air conditioning work began in 1918.

- 97 - 117 Does the research that's done in this area inter-relate with industry practically such as it did with the Holland Tunnel? University staff participates in professional society activities and studies research problems. They do not become involved in development work. Industry is willing to help finance the research that's going on.
- 118 - 166 Was Willard's influence as great when he became President? It might have if it hadn't been for the depression and the start of World War II. Building projects halted as money wasn't available. Willard, who was a builder - he loved to build - was unable to do so because of lack of funds. The was nearly closed the university. The university trained signalmen, bakers and technicians. Willard foresaw the potential of the Union building and the establishment of men's dormitories. Local residents had a strange hold on housing. They opposed university dorms.
- 167 - 199 There were girls' dormitories. Willard had to fight a great many criticisms of socialism and paternalism. The support of the students from the Chicago area helped Willard most. Community realized that there were inadequate quarters for the men students when there was a fire in a house and dozens of students poured out of the attic where they had been staying. Then the state legislators carried it through. This was a major accomplishment for Willard.
- 200 - 210 Did Willard have anything to do with the setting of standards for housing off campus? People in Deans' offices were responsible and were undoubtedly influenced by the demands Willard placed upon them.
- 211 - 221 Bib blow-up over the Zuppke affair created turmoil in Willard's administration.
- 222 - 225 The unfortunate shooting incidents downtown.
- 226 - 258 Willard was forced to operate on probably the minimum budget this university has ever operated under and with practically no funds for building. We were way behind on building after the war. Michigan State and Purdue accepted federal funds. The Illinois state administration and legislatures did not favor accepting federal funds. Pork barrel, socialistic. I wonder how unlucky a man with such a great potential for building was prevented from doing so.

- 259 - 280 What were some of the characteristics of the turmoil that the war brought to this campus? Lack of money for growth of any kind. Violent dislocations in enrollment.
- 281 - 291 How did this affect the academic atmosphere on the campus? No department even asked for funds. No thinking of new equipment or new programs, or new facilities. Just did the immediate job, which was teaching.
- 292 - 304 What about the airport? This was one of the things that was completed during Willard's administration.
- 305 - 369 What attitudes have you noticed being taken by the students today towards engineering, more activities to tempt the students from day to day? There may be more specialization. I don't think the students are participating as much as they used to. 1910-1925 students were very active organizers. Honoraries founded. Activities begun. Engineering students particularly were the most loyal Illini you could meet. We are now benefitting from that loyalty.
- 370 - 408 Why do you think that's not continued? Size or perhaps the increasing emphasis on grades that students now seem to feel is so necessary. There is a far more serious attitude toward studying today than there used to be. I regret the lack of time and enthusiasm students have toward activities. Students are worried about the war and it takes some of the fun out of life. Pressure on students is tremendous. Impact of war.
- 409 - 424 Do you think the entire atmosphere of competition because the increase in numbers is putting much more pressure on them? It seems to. Engineering students always worked hard. If the students know that they have to get good grades as far as the draft is concerned, I'm sure that this would affect their attitudes. It's an unhealthy attitude.
- 425 - 451 When you first became acquainted with the students, what types of engineering projects did they have interest in and how would you characterize it? Engineering students of that particular era were not hitting the books any harder than they had to. There was a great deal of horse-play outside. Not paying any attention to what was happening outside of the campus. No interest in international affairs or politics. Care-free generation. Present generation feels pressure put on them by parents, draft board and just sheer competition by students around them.
- 452 - 477 Would you say the university has done well in educating engineers for the present day? Very, very well. Alumni assume very responsible positions. Exceptions are industrial leaders participating in civic affairs.

- 478 - 515 President Stoddard came in in a period of major turbulence and turmoil. He created more. His influence was a major one. There was more active opposition to him than any other president. He was a controversial character who brought in many disturbing directors. An injection of adrenalin. His major influence on the creative arts was important. Walden quartet. Kuypers. Now music department is among the top dozen. This is due to Stoddard's influence. I hope Krannert Center will help.
- 516 - 575 Do you think that despite the turmoil Stoddard created, that it was well worth it? It was a difficult period. Psychologist Stoddard was not a very good practicing psychologist. He created many enemies. This was a much needed stimulus at the time. University much better off, slightly smaller and powerful, than big, comfortable and mediocre. A great university requires strength in all departments and regrets personality conflicts. President Henry gets along with the faculty and the administration - stability. "Honeymoon" period is usually brief for new president. President Henry has kept himself in the background.
- 576 - 586 How has Henry accomplished this? Adroit administration. Minimum of his personality in forefront. He has placed the University ahead of himself. He still has respect of faculty.
- 587 - 620 Willard and Stoddard also tried to keep respect of faculty. Willard was busy keeping the University together. He had too many problems and no time for faculty relationships. He was a very brilliant man who came in at the wrong time. I feel sorry for him. His technical reputation was fine. I worked under him personally for 10 years as a research assistant.
- 621 - 677 What kind of person was Willard? he was a New England gentleman was a capital G. You were not able to completely relax with him. But I was only an assistant while he was head of the department. He did not swap jokes with the faculty. He was a man of superb integrity. He had tremendous intuition in engineering. He had answers before us all. A.P. Kratz was his right hand man, who bolstered Willard in rash statements he might make. They were a tremendous team. Kratz was Midwestern and familiar, not formal.
- 678 - 739 I came in 1927 as a half-time assistant. 5 others were appointed at the same time. We were asked to report to the Engineering College to be personally introduced. In 1967, when Dean Everitt introduced the faculty he distributed a 20 page booklet to describe the faculty. In 1967, the half-time graduate assistants feel as though they are still graduate students, rather than faculty as earlier. We are bigger whether we like it or not. A small engineering institution cannot compete with the big ones.

- 740 - 789 Is the money due to federal support of engineering? Yes, 13-14 million dollars per year from non-state funds coming into departments. Yes, the impact of federal funds is a major influence (not gifts - for research projects done for the government). Work on air pollution now started - water desalinization.
- 790 - 855 Does Mechanical Engineering get as much as Electrical Engineering for federal funds? Mechanical Engineering is not as large a participant - perhaps more later. High level of federal support recent? Primarily, after Sputnik. We can't afford to drop it now. There is a continuing demand. Many schools are nearly dependent on federal support. Choice of research projects at the University of Illinois has been sound.
- 856 - 939 The Engineering Experiment Station is an organization within the College of Engineering that is supposed to take care of research projects externally commenced. Director is Ross Martin. It is the contract writing agency. Information of the Agricultural Experiment Station is released to farmers directly. Engineering Experiment Station sends information to large corporations in technical papers. We have the Coordinated Science Laboratory which is a freer organization. CSL is not product-oriented.
- 940 - 989 A department ebbs and flows. The Mechanical Engineering Department has now entered phase 3. Phase 1 was the golden era of outstanding engineers. Phase 2 was rebuilding - a few people brought in, when Prof. Norman Parker was here. Phase 3 - we are rebuilding again.
- 990 - 1016 A number of administration officers have come out of this department: Willard, Dean Richards, Chancellor Parker.
- 1017 - 11111 By 1980 we will have a new generation of people. They will be less product-oriented and more scientifically oriented. Now, we have specialists. Every department hopes not to have a mass exodus of people. Parker had to make numerous replacements. Now we have only 3 or 4 replacements per year. We spend 12 months searching for a new man.

Minutes of Meetings: Slush Fund, Spring 1967

Correspondence

1965-1966

1965-1967

1959-1960, 1963-1965

Ice Rink, 1958-1969 (2 folders)

Minutes of the Intercollegiate Conference (Big Ten Meetings)

1963-66

1967-1971

Senate Committee on Athletics and Recreation Minutes of Meetings, 1965-68

List of Technical Reprints and Preprints, 1965-67

Using a Water Table to Visualize Air Flow (with W.F. Stoecker, F.C. Haynes and G.W. Burgoyne), September 1965

Design Considerations of Return-Air Grilles (with G.W. Burgoyne), 1966

Equivalent Length Values for Supply and Return Air Fittings (with G.W. Burgoyne and R.H. Henninger), 1967

Box 2 (Oversize):

Oversize Long Photos: White House Reception for National Warm Air Heating Association, December 3, 1931

Interview Questions Below:

Professor Seichi Konzo

152 Mechanical Engineering

Here are a few topics that I would like to discuss and tape record on Friday, June 30, at 9:00 a.m.

1. What important projects were started, and continued during Willard's term as president? What outstanding new faculty members came in the Civil Engineering and Mechanical Engineering departments? How did Willard's interest in engineering continue to influence the college of Engineering when he was president?
2. In what areas did you first work when you came to the University? What conditions did you find?
3. What construction was done during Willard's term of office? How were engineering faculty involved with the Illini Union, and Airport construction?
4. What changes in student attitudes and abilities have you noticed since you arrived on campus? How did the advent of the Second World War change the character of students and faculty?
5. How well has the University of Illinois done in educating engineers in an age of increasing specialization?
6. Has federal support of research affected mechanical engineering to the extent it has affected other areas of engineering?
7. How did Stoddard and Dean Ridenour change the University?
8. Which men have been especially influential in the development of the departments of Civil

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and Mechanical Engineering?

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