

BRUNO'S DAYS AT CORNELL

R. H. Rand
Cornell University

Bruno was chairman of the Department of Theoretical and Applied Mechanics at Cornell University from 1968 to 1972. Take a moment and think about where you were between 1968 and 1972.

I had been a graduate student in the Department of Civil Engineering and Engineering Mechanics at Columbia University before that and had taken courses from Bruno (although he was not my thesis adviser). I joined the Cornell faculty in 1967, one year before Bruno came up to Ithaca. As in the case of so many people, he was instrumental in helping me obtain a position that I have held ever since.

I recall that before my interview at Cornell, he sat with me in his office at Columbia and revealed a propensity for planning and foresight. He had, in preparation for his move to Ithaca, obtained weather summaries from the U.S. Meteorological Service in order to evaluate what life would be like in Central New York State. He was hoping it wouldn't be too cold and too snowy. Then he prepared me for my interview by going over the specialties and backgrounds of each of the Cornell T&AM faculty members from a list in a Cornell catalog. This put me at a great advantage and helped me to get the position.

The faculty in those days consisted of about 14 professors. I would like to mention a few of them. There was David Block, an applied mathematician who was years ahead of his time in being interested in artificial intelligence and neural networks. Dave, who coincidentally had been a college chum of Bruno's in their undergraduate days at CCNY, was certainly the most endearing person I have ever known. Their families socialized together, and if the climate in Ithaca was colder than that in New York City, the warmth of Dave's personality helped to compensate for it.

Some of the other senior professors in the department were Geoff Ludford, Edmund Cranch, Y. H. Pao, and Don Conway. It was a credit to Bruno that he was able to work amicably and successfully with this group, especially since some of them had very strong personalities.

As department chair, perhaps the most important effect one can have is in the area of personnel changes. Thus it seems appropriate to mention some of the people whose lives were influenced by Bruno's leadership. He hired Professors Wolfgang Sachse and Jim Jenkins, both of whom are still at Cornell, as well as Professor Richard Hetnarski, one of the organizers of this dinner and conference, who later took a permanent position at Rochester Institute of Technology. The other organizer, Professor Dimitrios Beskos, now a professor at the University of Patras, Greece, was a graduate student of Bruno's in the department back in those days. Bruno graduated three other Ph.D. students while he was

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at Cornell. These were Drs. Cengiz Dökmeci, A. Lahoud, and Y. F. Lee. There were many other people at Cornell whose lives were significantly influenced by Bruno, but I can't mention them all. My apologies if I neglected to mention you.

I'd like to spend a few minutes trying to capture the flavor of Bruno's days at Cornell. It seems to me that life (or its recollection, history) is a superposition of local and global effects, that is, the experiences of an individual depend both upon his own individual actions, as well as upon what is happening to the society as a whole. As an example, think of all those people who were born at just the wrong time so that they had to fight World War II. In this context, Bruno's days at Cornell happened to coincide with a remarkable period in the recent history of the United States. First of all, there was the Vietnam war, which combined with the baby boom of the 1940s led to a generation gap that resulted in the numerous campus demonstrations of the late 1960s and early 1970s. In May 1968, while Bruno was still at Columbia, student demonstrators took over buildings, held university officials captive, broke into offices, overturned furniture, and finally led to an overreaction by the police, who kicked and clubbed students and professors. I was then a professor at Cornell, and when I read about all this in the newspaper, I thought that Columbia was more vulnerable than Cornell, located, as it was, in the heart of New York City. I remember expressing this opinion to Professor Frank DiMaggio, who had been my thesis adviser at Columbia, and was surprised to hear him say "Just wait, it will get to you, too." I was even more surprised to find out he was right! One year later, in the spring of 1969, a student demonstration at Cornell achieved the dubious distinction of ending up on page one of *The New York Times*, with a photo of students *carrying guns* voluntarily leaving the student union, which they had occupied for several days. Life on the campus had become wild and, in a strange way, exciting. Barton Hall, the campus' largest gymnasium, was crowded with concerned students, faculty, and others around the clock for a week, discussing what should be done about the demands of the building-occupiers. I learned that even at 4 A.M. there were droves of people milling around Barton Hall.

At this time Bruno was the chairman of T&AM at Cornell. One evening I received a telephone call from him, planning a schedule by which we professors of T&AM would go on guard duty to protect our building, Thurston Hall, from being taken over by student demonstrators. So one night I stayed up all night working in my office, ready to telephone the campus police the moment I heard the sounds of student demonstrators, sounds which never came.

I have always thought it was a peculiar coincidence that the Columbia incident occurred in 1968, while Bruno was still a professor there, and the Cornell incident occurred in 1969, Bruno's first year at Cornell. A little deduction in the style of Sherlock Holmes might suggest that it was Bruno's lectures on thermoelasticity that had driven the students wild with excitement and enthusiasm, thereby providing the source of energy that led in both cases to the eventual full-scale demonstrations. Let me say that I personally do not subscribe to this theory.

In addition to the unusual activities associated with student politics, Bruno's days at Cornell also coincided with an economic recession, which hit the field of engineering especially hard. Riding on the heels of the Sputnik era, engineering, in general, and applied mechanics, in particular, were blooming due to national interest in space exploration. This ended abruptly in July 1969 with the successful landing of men on the

Moon. By 1970 the funding for space exploration had become so reduced that many engineers were out of work. On the campus this was experienced as a reduction in the availability of research funds, and in a decrease in the number of applicants for admission to engineering programs.

Given that such a widespread, gloomy picture was coming, it was a lucky thing for us at T&AM that Bruno was our chairman during that period. He protected and nurtured our department during those stormy times. His interest in studying and remedying the situation went beyond our department to the entire field of mechanics, when he founded the now famous Association of Chairmen of Departments of Mechanics.

We missed Bruno a lot when he left, for his leadership as well as for his research work. But, happily, he frequently returns to Ithaca, lately as part of the Engineering Dean's advisory committee. All of his friends at Cornell look forward to his continued visits, and we offer our congratulations on this happy occasion.