

**ALAN R. SWEEZY
(1907–1994)**

**INTERVIEWED BY
RACHEL PRUD'HOMME**

February 19 and March 1, 1982

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Subject area

Economics

Abstract

An interview in two sessions in February–March 1982 with Alan R. Sweezy, professor of economics in the Division of the Humanities and Social Sciences. Professor Sweezy joined Caltech's humanities faculty in 1949, after having taught for several years at Williams College. He did his undergraduate and graduate work at Harvard. During the Depression, before joining the faculty at Williams, he worked in Washington helping to set up the new Social Security System, and later at the Federal Reserve Board. His interests in economic development led him to studies of population growth, and in the late 1960s he became active in Planned Parenthood, becoming national chairman in 1972. Along with Professor Harrison Brown, Sweezy was instrumental in launching Caltech's Population Program in 1970, sponsored by the Agency for International Development (AID). The program worked closely with the American Universities Field Staff to collect and analyze data on population growth and population policy in underdeveloped countries, and several influential conferences were held at Caltech in the early 1970s on these issues. In this interview, Sweezy recalls the genesis of the program and its demise in 1974, which he attributes largely to a change of focus in the humanities division. By then the division had shifted to a narrower and more mathematically oriented brand of social sciences; macroeconomics, with its larger studies of population, resource utilization, fiscal policy, etc., gave way to

microeconomics. He also comments on the wide interests of his colleagues on the faculty and on the changes in the student body over the years.

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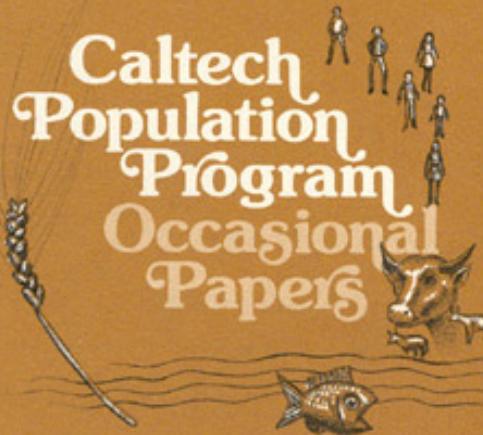
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Series 1 Number 1

RECENT LIGHT ON THE RELATION BETWEEN
SOCIOECONOMIC DEVELOPMENT
AND FERTILITY DECLINE

Alan Sweezy



From 1973, the first issue of *Occasional Papers* from
Caltech's Population Program, headed by Harrison
Brown and Alan Sweezy. Caltech Archives.

CALIFORNIA INSTITUTE OF TECHNOLOGY

ORAL HISTORY PROJECT

INTERVIEW WITH ALAN R. SWEENEY

BY RACHEL PRUD'HOMME

PASADENA, CALIFORNIA

Caltech Archives, 1983

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**CALIFORNIA INSTITUTE OF TECHNOLOGY
ORAL HISTORY PROJECT**

**Interview with Alan R. Sweezy
Pasadena, California**

by Rachel Prud'homme

Session 1	February 19, 1982
Session 2	March 1, 1982

Begin Tape 1, Side 1

PRUD'HOMME: Dr. Sweezy, I know you were born in New York in 1907. Can you tell me just a little bit about your background?

SWEEZY: I went to high school in Englewood, New Jersey, for two years, and then to Exeter. From Exeter I followed the beaten path to Harvard, where I got my AB degree in 1929. I then spent a year in Cambridge, England, as the Lionel de Jersey Harvard Scholar. I came back to Harvard to do graduate work in economics. I had shifted as an undergraduate from history to economics, with the year in Cambridge being a transitional period in which I paid much more attention to getting acquainted with England and English students than to academic pursuits. In fact, they said that they did not particularly want me to spend my time studying and working in the library while I was there; that was not the purpose of having a visiting student in their midst.

PRUD'HOMME: What a lovely fellowship to have.

SWEEZY: It was very nice, yes, and I really felt at home there. Then, after coming back, I did graduate work until the fall of 1932, when I had a Sheldon Fellowship to go to Austria.

PRUD'HOMME: Why Austria?

SWEEZY: Because I was already interested in the work that the Austrian economists were doing at that time. And one of their group, Gottfried Haberler, had been at Harvard for a year while I

was—the year of my graduate work there—and I was much interested in his theories and in what he told me about Vienna. He also became a close personal friend. It was largely because of Haberler that I went to Vienna.

PRUD'HOMME: He was a mentor of yours, in a sense.

SWEETZY: Yes. I liked Vienna very much. I had been there in the summer of 1928 with some Harvard friends, and I was pleased with the idea of going back and spending a year there.

PRUD'HOMME: Did the Depression and the affairs of the world in 1929 affect this change of yours from history to economics?

SWEETZY: No. The reason for the change was that I had a feeling that in studying history I needed to know economics—that history without economics was not very meaningful. Of course, I've discovered since then that it's not as much more meaningful with economics as I thought it would be. I thought economics was a kind of golden key that would unlock all the secrets; that hasn't been the case. But of course I'm very glad that I do know some economics, which I think does help a good deal to understand history.

I became so much interested in economics then, and enjoyed it so much, that I never went back to history, which was my original intention—to go back with economics as a tool. However, I do still take a great interest in historical aspects of economics.

PRUD'HOMME: Of course you had an incredible time to work with—from 1929 to the present. You've had a taste of everything.

SWEETZY: Yes, that's right, it's been a very exciting and varied period.

PRUD'HOMME: You worked for the [United States] Treasury while at Harvard.

SWEETZY: I went to the Treasury in the summer of 1934 with a group of younger economists who were to work on monetary policy and tax policy. I was specifically assigned to work with

Lauchlin Currie in the monetary policy group. I stayed there until the beginning of 1935, working at the end on Social Security—the new Social Security system was being set up at that time. Then I went back to Harvard as a tutor and instructor in the winter of 1935 and finished up my PhD work at that time.

PRUD'HOMME: What was your thesis subject?

SWEENEY: Very obscure [laughter].

PRUD'HOMME: You went back to Washington again, though.

SWEENEY: And then I went back to Washington in 1938, this time to the Federal Reserve Board, where I was in the Division of Research and Statistics. And then I spent a very brief period in the Federal Works Agency in their economic intelligence unit.

PRUD'HOMME: What was the Federal Works Agency?

SWEENEY: Well, it was better known as the WPA [Works Progress Administration]; it changed its initials and its set-up a number of times in the early New Deal period. I went from Washington to Williams College, and I stayed at Williams until I came to Caltech in 1949.

PRUD'HOMME: You were an associate professor of economics there and then you were full professor of economics—in seven years, basically.

SWEENEY: Yes.

PRUD'HOMME: You must have felt a little isolated in Williamstown, after Washington.

SWEENEY: Not a bit so. Williams was a very alive, dynamic place, particularly in the fields of economics, political science, and so on.

PRUD'HOMME: And this was wartime, too.

SWEEZY: Wartime, yes, and the immediate postwar period.

PRUD'HOMME: You came to Caltech in 1949. How did that come about?

SWEEZY: Hallett Smith invited me to come and join the [Humanities] Division at Caltech, which I was very pleased to do.

PRUD'HOMME: Was it a large division?

SWEEZY: No, it was small, and particularly small in the social sciences. There were, I think, at that time only three economists. In English and history they had some half a dozen. In philosophy, I think there was only one person, and in psychology I'm not sure there was even one at that time. But it was generally a very small division, which suited my tastes extremely well.

PRUD'HOMME: I read that [Robert Andrews] Millikan felt that it was necessary for a scientist to study humanities as a support for his training in ethics, and that there were established humanities requirements for people in the sciences.

SWEEZY: Yes, the humanities requirement—compared with other science and engineering programs in, say, Berkeley or Harvard or other universities—was rather large. Students were required to take one-fifth of their courses in humanities and social science.

PRUD'HOMME: Did [Caltech president Lee A.] DuBridge, who came just before you did, have an immediate and different impact on the institute than Millikan had?

SWEEZY: In my work I was not very aware of the impact of anybody on what we were doing. Let me describe the situation in terms that were popular at Williams while I was there. Education, the saying went, is Mark Hopkins on one end of the log and a student on the other.

[Editor's note: U.S. President James A. Garfield, a former Williams student, once declared, "I am not willing that this discussion should close without mention of the value of a true teacher. Give me a log hut, with only a simple bench, Mark Hopkins on one end and I on the other, and you may have all the buildings, apparatus, and libraries without him."] Mark Hopkins was the president of Williams College in the mid-nineteenth century and was known as a popular and profound teacher, with a tremendous influence on the students of his day. Here at Caltech the Humanities Division provided the log. It was simple, almost spartan in its physical plant. It had very little in the way of programs, rules, regulations, or anything like that; as a result, it gave the teacher a free and uncluttered opportunity to work directly with the students. It was in that respect much like Williams. Williams also had given wide latitude to the teachers to develop their subjects as they wanted to and to have an intimate relation to students.

PRUD'HOMME: Did you find the students here different from the students at Williams, in that they were more interested in pure science—or were they basically the same?

SWEEZY: Let me describe the students here in terms that Abraham Maslow used after he had spent four days on the Caltech campus talking to and with students. It's not so much that they were different from the Williams students, because there were students at Williams who also would fit this description. But there weren't as many of them, and there were more who would not really fall into these categories. Let me point out some of the things that Maslow said about Caltech students, which expresses my feeling, my appraisal, better than I would be able to express it myself.

Maslow started—this was in reply to an inquiry from John Weir, who was a psychologist working in the administration at Caltech at that time—he started by saying

My strongest impression remains firm: namely, that of an extraordinary group of young men uniformly of high intelligence, with all that implies. I think nonpsychologists are apt to be less aware of the fact that high IQ carries with it other desirable personal qualities—moral, aesthetic, physical, and personality health. They look like fine, good people. They call out not only my respect but also my affection.

That is very much the way I felt about them. [Maslow continues:]

But most important of the qualities correlated with high IQ is the fact of creativity. High creativity often looks like neurosis and maladjustment. Certainly, creative people fairly often are not adjusted in the ordinary sense of the word. But, of course, this is not neurosis. Some of it is clearly a phenomenon of the turmoil of creativity, which need not be feared at all and which can be handled easily as soon as it is understood well. High IQ and the creativity that goes along with it is apt to correlate negatively with chronological age and social and sexual maturity at the college level. This is certainly nothing to fuss about.

One should appreciate the probability of slow and prolonged maturation and long continued growth of intelligent and creative people. This is the earnest of possible greatness, and from such people come our intellectual leaders. At the same time, it looks like immaturity by comparison with less capable people of the same age. I must tell you that I saw less promise in some of your boys who looked smooth, socially easily well-adjusted. Certain real and necessary, and even desirable, conflicts are by-products of this immaturity or continuing growth—whichever you prefer to call it. One is that they are still in the greedy stage. They want to know everything, read everything. Going into science or engineering, into anything else that demands exclusive devotion, can be felt as a threat, a loss of freedom—like getting married prematurely. So many of your students cast longing glances at economics or music or psychology. This is understandable and should be sympathetically treated.

This is exactly what I found. They had an enormous range, an intensity of interest. As Maslow said, they didn't want to be confined. They were intensely interested in science, but they didn't want to be confined to science. They wanted to branch out, to range widely in their intellectual activities. Frequently, they carried this to the point where it overburdened them; they tried to do too much. I often, talking with students, asked, "Why are you taking so many courses? Are you required to take them?" And, while the requirement at Caltech seems to me to be inordinately large, many of them were taking more than they were required to take, simply because they wanted to. They had this avid curiosity to learn about other fields. These were the students, then, that I was dealing with. They were the ones on the other end of the log. And it was, as you can imagine, an exciting and rewarding experience.

PRUD'HOMME: So the log was growing in a sense, because the Humanities Division was expanding.

SWEEZY: Not at that point. That came later. One of the nice things about that period was that it wasn't expanding.

PRUD'HOMME: This is in the mid-fifties?

SWEEZY: In the early fifties to early sixties—in fact, up to the mid-sixties. The emphasis was still completely on the relation between teacher and student. It isn't just teacher and student; the flow went both ways. We learned from the students as well as they from us.

PRUD'HOMME: What made the change, then?

SWEEZY: That comes later. Let's talk a little more about what we were doing in this period of the fifties and sixties. And that necessitates a little excursion into economics.

The 1920s and 1930s had been a period of great excitement and creative activity in economics. Economists did not repudiate the classical economics of Adam Smith, [David] Ricardo, John Stuart Mill, and [Alfred] Marshall, but they greatly extended the boundaries of economic analysis. In the 1920s, for instance, for the first time they gained an understanding of the modern monetary system—the mysterious way in which money is created or destroyed by the banking system, and an understanding of how central banks can use their power to influence this creation or destruction of money as a stabilizing influence on prices.

The Depression of the 1930s stimulated a further and deeper reexamination of basic concepts and a breakthrough in understanding the determinants not only of the amount of money in the economy but of its flow through the economy and its impact on the rate of employment and production. This led to a broader view of the role of fiscal policy; the idea that the budget should always be balanced gave way to a more relativistic concept. Under some circumstances, the budget should, of course, be balanced. But it was realized that there are other circumstances in which it should be underbalanced, and still others in which it should be overbalanced. In other words, a much more general view of the relation of government spending and government taxing to the operation of the economy.

Now, the students at Caltech in the fifties and sixties lived through this excitement again, the excitement that the economists—or at least the younger economists—had experienced in the twenties and thirties. Almost without exception, they came here with the oversimplified economic ideas of their parents and their parents' contemporaries. Although politically

conservative, they were too bright and too eager for knowledge and understanding to let their political conservatism stand in the way of mastering new economic ideas. That was, among others, one of the rewarding aspects of working with Caltech students. And of course if it's good economics and has really broad application, it should be consistent with conservative political and social biases or predispositions as well as with liberal or radical ones. I think the students came to realize—and it is certainly one of the things we tried to help them realize—that they could become good economists without being committed to a particular political or social philosophy. What this means, of course, is that in your final judgment of what you want to do in terms of policy, you not only need economic analysis but you also have to put in some value judgments. And it's in those value judgments that the differences can exist. But it's a more sophisticated, clearer level than the conservative conclusions, which come from a very oversimplified notion of how the economy works.

PRUD'HOMME: It's an intellectual exercise.

SWEEZY: Yes, and our students, as I say, were very apt at this kind of thing.

Now, in the fifties and sixties, the new economics was applied with considerable success to the task of stabilizing the economy. The recessions in that period were mild and brief. Inflation was slight. To a considerable extent, of course, this success was a result of favorable circumstances, but the formulation and execution of intelligent policies based on a better understanding of how the economy works was also a factor. New goals in this period, in the late fifties and early sixties, came into prominence also. Interest in growth was stimulated by rivalry with the Soviet Union—you remember Khruschev saying, “We'll bury you!” The way they [the Soviet Union] were going to bury us was by growing so much faster than we did that they would be bigger and more powerful economically; [their system] was going to work better than ours. One of the ways in which it would work better would be that there would be a much more rapid growth of their total output than we could manage.

Along about the same time, a parallel development took place, the greatly increased interest in the less developed countries. This, in a sense, is another aspect of the problem of growth, only the setting is sufficiently different to warrant treating it as a distinct subject for study.

Then, a little later, toward the end of the sixties, growth in the developed economies, growth of the less developed economies, led to a greater appreciation of the fact that there were problems connected with growth as well as benefits. These, of course, were particularly in the field of resources and environment.

PRUD'HOMME: More is not necessarily better.

SWEZY: We found, in fact, that while in some respects more is better—because people, the great majority of whom were still living on a very low standard of living, could live better in one way. But also, because we were polluting the environment, because we were creating greater congestion, the quality of life was being adversely affected along with the improvement in the standard of living in the ordinary sense. Increasingly, also, we began to realize that we were using up our basic resources at a rate that might not be sustainable into the indefinite future.

Now, all of this of course was closely related to the matter of population growth. This is an interest of mine that goes back into the 1930s. In my case, my academic interest was combined with participation in a minor way in actual policy formulation, in trying to do something about population growth. I had been interested in this for some time. In 1964, I was invited to go on the board of the local Planned Parenthood affiliate. In 1970, I became president of the local affiliate and meanwhile had also gone on the national board. And in 1972 I was elected chairman of the Planned Parenthood Federation of America. So there was a close connection between my academic interests in population and my outside activities in the, I suppose you might call it, applied population policy field.

In 1968, I offered a course on population at Caltech. Students were avid in their interest in both the population subject as such and in the broader subjects of development and resources and the environment. It also was a field in which there was rapidly growing public concern. In fact, it's rather amazing the speed with which the awareness of these problems and the concern about them spread. I'm afraid, perhaps, there's been a little subsidence in the more recent period.

PRUD'HOMME: Did this attract more students into the field of economics, say, on a graduate level? Might a student start at Caltech thinking he was going to do science and then end up

switching over into the humanities or into the social sciences?

SWEEZY: Well, at just about this time a radical shift occurred in the direction of economics in the division. A decision was made, or evolved, starting in the late sixties and becoming completely clear in the early seventies, to shift focus from problems like stabilization of the economy, development, population, to what we usually call microproblems. It isn't really so much microproblems as it is a set of sophisticated, highly technical techniques, both statistical and theoretical, with a focus on formulating complicated technical models of the economy in a somewhat abstract way. Because here the decision was to almost abandon what's called macroeconomics—that is, the field of money, fiscal policy, unemployment, inflation, and so on.

PRUD'HOMME: Was this a trend throughout most of the economic academic communities in the United States?

SWEEZY: I think it was.

PRUD'HOMME: What caused it? Computers? Why this sudden looking at the angels on the head of a pin?

SWEEZY: No, I don't think computers were an important element in it. Of course, they use computers; everybody uses computers now. But that wasn't of the essence of the problem. It had two main facets: One, refined theorizing about limited problems—usually problems that the theorists themselves constructed, with some, but not much, relevance to the problems of the real economy. And the other, as you suggested, was this matter of techniques. There's a little misunderstanding about quantitative versus qualitative: We were always quantitative in our approach to economics. Certainly from the time I was a graduate student on, you couldn't make statements unless you could provide some statistics or some facts to support them. So it wasn't a matter of quantitative vs. nonquantitative, it was more a matter of interest in elaborate techniques as against rather simple methods. And the question there of course is, Where and when are they relevant to the kind of material you are able to get?

PRUD'HOMME: Maybe it was in hopes that some of the problems of the expanding world would be amenable to this—that if you concentrate, if you focus down on something, you don't have to look at the whole.

SWEEZY: Some of the younger economists have said that eventually they assume this will all fit in together and that this will resolve it, and perhaps that's true. But it's a long bypass that they're engaged in at the present time, and the interest in macroeconomics—economic development, population, environment, resources—has faded to almost nothing in the social sciences at Caltech.

PRUD'HOMME: Were other economists brought in at this point?

SWEEZY: Oh, yes—other economists and political scientists. Perhaps I should go back, though, to tell a little more about the developments before this change of emphasis and focus took place. I mentioned that I offered a course in population in 1968. Then, in the next two years we had discussions with the American Universities Field Staff people about a program of writing, research, and reporting on population and its relation to environment, resources, and economic development. This was the Caltech Population Program, which was launched in 1970 with Harrison Brown as the director, and I worked with him as associate director. Harrison was sort of our outside man, our link with, particularly, the government.

PRUD'HOMME: You had an enormous grant. There was an aid grant of \$800,000 for three years.

SWEEZY: That's right, there was. Harrison was largely instrumental, along with the American Universities Field Staff people. I should mention that this was a grant for both Caltech and the AUFS.

PRUD'HOMME: Tell about the AUFS.

SWEEZY: Well, the AUFS is an organization that started back shortly after World War II to put social scientists into the field—that is, into the less developed countries of Asia, Africa, and

Latin America. It allowed them to live and study, to become experts on development in those areas, and then to come back and lecture—usually a six-month period—to a group of American colleges and universities. I think it was usually ten or twelve colleges and universities. They would go around, spend a few days, or sometimes a week or two, in each of these places, give lectures, meet with people—the idea being that, particularly in the early part of this period, many American colleges and universities did not have on their own faculties people who were knowledgeable in these areas. This gave most students and faculty, and generally the college community, a chance to listen to and meet with people who were. It became a prominent adjunct to our work in the fields of macroeconomics and development, and then in the field of population and resources and environment.

And it was with the AUFS that the Caltech Population Program was worked out. The idea was that they would, in their investigations in their various foreign beats, include population growth and population policy as a major component of their studies. Then they would write about this and lecture on it when they came back to the United States. Caltech's role was to be the coordinator and editor of the reports they sent us.

PRUD'HOMME: What happened to all the data they collected? Were they used?

SWEEZY: It depends on what you mean by "used." The data had an educational function, of course, in the environments in which they presented it. They wrote papers, which were used to some extent in the government and as a kind of general educational instrument. It was not, for the most part, research in the more academic sense of the word. It was perhaps better described as reporting on developments in the areas they covered or in which they lived, rather than population research in the ordinary sense.

PRUD'HOMME: These were largely underdeveloped countries.

SWEEZY: These were all underdeveloped countries. Well, they did some work in Europe, but not much; it was chiefly the underdeveloped countries.

PRUD'HOMME: Did these studies lead to more interdisciplinary projects by the students at the

university?

SWEEZY: Not at Caltech. In fact, during the period of the Population Program, Caltech was in the process of shifting its focus in the social fields, so that I would say relatively little use was made of the potential which did exist. One of the things that was much discussed was whether we should use the Caltech-AUFS Population Program as a springboard to get into a longer-lasting academic population program here at Caltech. The decision on the part of the division was against doing that.

Begin Tape 1, Side 2

SWEEZY: I have here the announcement of a Conference on Technological Change and Population Growth, on the 6th to the 8th of May, 1970. That launched the population program. We had a number of distinguished people participating in the conference: Kingsley Davis from the University of California at Berkeley; Roger Revelle, Harvard; Bruce Johnston, who is a specialist on food and population at the Food Research Institute at Stanford; Carl Djerassi from Syntex Corporation, an expert on birth-control techniques, especially the pill; Don Heisel of the Population Council; and finally, Bernard Berelson who was president of the Population Council at that time. I see there are several other people here: [Minoru] Muramatsu, for instance, from Tokyo, who was one of the leading population experts in Japan, and then some of the American Universities Field Staff, Charles Gallagher and Tom Sanders.

I also gave a talk at that conference on "Population, GNP, and the Environment," in which I tried to explain why, even in the United States, with our vast resources and relatively small population, we needed to be concerned about further population growth. The program was headed by Harrison Brown, who was our chief contact with AID [Agency for International Development], which put up the money for the first three years of the program.

PRUD'HOMME: Did he actually solicit the money from AID?

SWEEZY: Actually, I think it was a result of a meeting of minds and objectives with the AUFS people and the Caltech people jointly working up the idea after several discussions of what might be done in this field. The AUFS people were eager to go into population as another area of

research and reporting. Harrison had had a lot of experience as a geochemist and as an expert on resources; obviously he was concerned with population also. And I had picked up an old interest in population and family planning, which I was pursuing actively at that time. These all came together, and I'm not sure who first suggested that we might launch a regular program with AID, or who suggested the AID money. It came out of this joint effort rather than any one person being responsible for it.

But Harrison had a wide acquaintance. He was foreign secretary of the National Academy of Sciences, and he had a very wide acquaintance in the whole population-resources field, which turned out to be of great value to us in developing the program.

The program was based at Caltech, but the fieldwork was done by the American Universities Field Staff. The nature of the program was described by Dudley Kirk, who was a participant in one of our early conferences, in accurate and felicitous style. This was in a review of the volume *Population Perspective, 1971*, which contained the papers offered in the first annual conference. The other conference, on Technological Change and Population Growth, had been a preliminary; we had not yet started the program at that time. Kirk's review, which appeared in *Social Biology* in June 1973, covered the papers in the first AUFS-Caltech conference—that is, the first conference that was specifically held under the program. He says:

The authors are a highly unconventional group to be writing on population. At the meeting, they exchange reports on countries from Afghanistan to Yugoslavia, each tending to speak in the language of his own discipline and in the framework of his geographic specialization. As a participant, this reviewer despaired of any coherent publication emerging from the meeting, but happily he was proven quite wrong. The authors represent diverse disciplines, including anthropology, history, economics, political science, and a variety of area specializations. None are professional demographers, and each knows his country and his culture far better than its demography. They have in common a deep knowledge of and experience in the countries they discuss.

This describes very well the nature of the group who were participating in this project. They were diverse; they were not experts in population, demography, family planning, or any of the fields we usually think of in this connection.

PRUD'HOMME: Did the students of the institute attend?

SWEEZY: No, the students did not.

PRUD'HOMME: Did it have any impact on the students?

SWEEZY: Not directly.

PRUD'HOMME: Or on the faculty?

SWEEZY: On the faculty to some extent. Several of the faculty were involved. There was an advisory committee, including Ned [Edwin S.] Munger, David Elliot, and Thayer Scudder. They took part not only by attending conferences but also by reading from time to time some of the AUFS reports. The AUFS reports from the field, I would say, were the basic channel. Then there were the conferences, at which they and outside experts gave special papers. Then, as the program developed, we had more input from Caltech faculty who were interested in one or another aspect of population growth—of economic and resource development.

PRUD'HOMME: I should think it would have added enormously to the prestige of the Humanities Division at Caltech.

SWEEZY: That I can't say. I don't know whether it did or not. The interest in the division was not very extensive. I think perhaps we had as much interest from some of the scientists—Jim [James F.] Bonner, for instance, and of course, Harrison—as from the members of the division. Although there were several—as I've said, Ned Munger, Thayer Scudder, David Elliot—and also Ken Frederick, a young economist, MIT PhD in the middle of the 1960s, whose special interest was in economic development and who took an active part in the population program. This diversity had its strength and its weakness. Its weakness was that they were not experts in demography or in population generally. The strength was that they were generalists with a wide range of interest and expertise who, perhaps, were in a better position than the more narrowly trained specialist would have been to view what was happening with respect to population growth and population policy, particularly in the various countries they covered.

Let me go on to cite another review, which brought out, somewhat later, particular

contributions. This was a review in *Journal of Marriage and the Family*, in August 1975, of the third of our conference volumes:

Population Perspective, 1973 consists of papers presented at the third annual review conference conducted by the Caltech Population Program. The unifying theme of the conference was the interaction of population pressures, perceptions, and policy. The following interrelated sets of questions were to receive special attention: What sorts of population pressures are important in the world? How sharply and how accurately are the pressures perceived by the public and their governments? To what extent and by what mechanisms are perceptions being translated into policy and into action? The volume was organized in two sections: The first section, entitled "Fertility, Prosperity, and Environment," contained two papers, one by John Holdrin on "Man as a Global, Ecological Force" and another by Alan Sweezy on "Socioeconomic Development and Fertility." Readers will find the second paper especially interesting. Sweezy critically examines the widespread notion that a substantial degree of socioeconomic development is a necessary and sufficient condition for declining fertility. He identifies several examples, especially Bulgaria, Portugal, and other eastern and southern European countries, in which dramatic reductions in fertility have occurred in the absence of appreciable industrialization or urbanization. He then suggests that the real basis for reproductive behavior resides in the presence or absence of special social and cultural barriers to the spread of birth-limitation practices. The possibility that such barriers can be removed in some instances without waiting for the gradual process of economic development is grounds for guarded optimism about the potential for slowing world population growth.

That's a very good summary of the paper I gave, which I consider to be perhaps the most important contribution that I made either to this program or to general discussion of population problems.

The background was the controversy raging at that time about the role of family-planning programs with respect to the possibility of slowing population growth. It was widely held—particularly among academic people: demographers, economists, sociologists—that family-planning programs could be of only very limited help in slowing population growth. You had to have a higher standard of living, which would give people an interest in limiting their fertility. I perhaps had a natural bias in the direction of finding that this was not as ironclad a necessity or rule as was widely assumed, because of my great interest in Planned Parenthood and generally in the family-planning programs and the effort to increase the use of birth control through such programs.

The immediate occasion for my getting into this particular study was a paper by John

Waterbury of the American Universities Field Staff, in which, with respect to what was going on in Egypt, he set forth, in very able and emphatic terms, what we might call the determinist thesis—that fertility is determined by socioeconomic development and nothing much can be done about it in the absence of that development. I found, as the reviewer said, that there were important counterexamples—enough to call into question any easy generality about the relation between population and development.

PRUD'HOMME: You must have rocked them back, because that was a very well-accepted theory.

SWEEZY: Yes, it was a widely accepted theory, and my paper did stir up a lot of interest among the AUFS people. It was taken up by AID, of course, which was sponsoring our program and receiving our papers. It met such an enthusiastic response from their field offices that they distributed several hundred copies of it to the AID people in the field, who had been generally rather discouraged by the accepted ideas.

PRUD'HOMME: There's no way out.

SWEEZY: That's right. And which implied that their efforts were pretty futile, because they were of course trying to increase the scope and participation in family-planning programs.

PRUD'HOMME: Did you work with the Environment Quality Lab here at all?

SWEEZY: We did to some extent, but that didn't develop very much. Although it was something we thought might, at a later stage in the population program. We were closely in touch with them, and they took an interest in what we were doing. Harrison Brown and Lester Lees, who at that time was head of the Environmental Quality Lab, were close friends and there was a good deal of interchange on an informal basis between the two groups.

PRUD'HOMME: Can you describe Harrison Brown?

SWEEZY: Harrison Brown is a geochemist, a very able scientist, who had broadened out the

scope of his interests and his work some time before. He and Jim Bonner and John Weir held a conference a few years before our first population conference, on the resource, environmental, and other aspects of development in human society, the results of which were published in a volume called *The Next Hundred Years*. It became very well known and widely discussed. And then ten years later the same group got together again, with various outside contributors, and did *The Next Ninety Years*. Harrison was tremendously valuable to us through his wide range of contacts in all of these fields. He wasn't at Caltech very much.

PRUD'HOMME: When was he here?

SWEEZY: During that period he had an appointment at Caltech, but he was away a great deal in his capacity as foreign secretary of the National Academy, where he also had an appointment. But the fact that he was away a great deal and had a great many other interests and obligations meant that he didn't have a great deal of time to give to the more specific work of the population program. I was the one who did the editing and the commenting with the AUFS people. Harrison did follow what we were doing but, as I say, he didn't have very much time for it. But he was tremendously valuable in his wide-ranging outside contacts and activities.

PRUD'HOMME: And he seemed to be able to pull people together.

SWEEZY: He had a great ability to get people to participate in one way or another in the program.

PRUD'HOMME: What happened to the population program?

SWEEZY: Well, the population program came to an end in 1974. Now, it's a complex story as to why this happened. As far as the AID-AUFS part went, I think it was that AID was having difficulty in getting approval for expenditure of this size on a program of this type. The fact that the AUFS people were not professional demographers also perhaps was a factor that contributed to the decision in AID to bring the program to an end. On the Caltech side, I think it was a lack of interest, or perhaps I should say a more positive decision not to spend resources in this direction.

PRUD'HOMME: Does this come at the same time as the change in emphasis from macroeconomics to microeconomics?

SWEETZY: Yes, it certainly did.

PRUD'HOMME: Who decides such a change in academic approach?

SWEETZY: Well, this was decided chiefly in the division, by the senior faculty of the division and the chairman.

I'd like to record, in this connection, one other item, since it illustrates what we gave up in the way of potential development when this decision not to expand the program at Caltech was made. In the same volume, *Population Perspective, 1973*, there was also a considerable amount of space given in the review to a paper by Pi Chou Chen on what was happening in China in the family-planning and population-control field. I'll quote again from the reviewer in the *Journal of Marriage and the Family*:

The paper by Pi Chou Chen is especially interesting because it focuses on population programs in China at the urban and village levels. Much of the content of the paper was derived from notes made during a 1972 trip to China. The author even reports on a five-hour conversation with Premier Chou En-lai, during which the Chinese experience with birth control was discussed. Chou En-lai said, among other things, that in the rural areas the traditional preference for male rather than female babies was proving a serious barrier to the spread of fertility control. And he added, "The government has and will continue to do its best to condemn and combat this male chauvinism." This quotation is both interesting and instructive. Pi Chou Chen devotes most of the remaining paper to a detailed study of birth control mechanisms in urban areas and rural villages, and to cultural and institutional obstacles to the spread of birth control in the countryside. The entire article is most informative. Readers of this journal will not be surprised to find, however, that many of the problems associated with family formation in China are common to other parts of the world.

Pi Chou Chen was favorably inclined to accept an invitation to come to Caltech, which some of us in the program hoped we would be authorized to extend to him. But the decision went the other way. I cite him as one of several people who, I think, would have been willing to come here if the decision had gone the other way.

PRUD'HOMME: Can you give me a kind of a summary of the changes in the Humanities Division decade by decade? Could you characterize it during the fifties, sixties, and the seventies? How did it change? Because there seemed to be a great broadening of interest with the sixties and expansion to all sorts of fields as interests and awareness of the environment and its import came about. And then there was a contraction and a change in the seventies.

SWEEZY: Yes, that's true. I'm trying to find here a statement I came across concerning the nature of that change. It is true that in the fifties we were very small. My description previously of Mark Hopkins on one end of the log and a student on the other fitted the actual situation very well. It was a matter of direct contact between a few economists and students who were very interested in what was going on in the development of economic theory and the application to economic policy. But there was no program, there was no financing; it was a very simple, almost spartan affair.

Then, as you said, our interests broadened out in the early sixties to include problems of growth, economic development, and, a little later, population. We added Mike Dohan and Ken Frederick to the staff. Then, we got into the population program. And we could have gone further in that direction.

The decision was made not to do that but to concentrate rather on the more sophisticated techniques in the social sciences, broadening in a different sense to include political science—especially decision theory—and econometrics and model building with respect to the general equilibrium aspects of the economy. This clearly is a difficult matter to decide—which way to go.

This, of course, was connected with the institution of a graduate program in the social sciences, and I don't think we would have had a graduate program if we'd gone in the other direction. That would have involved too much of an expansion—too many new people, too much of an expansion of faculty, for an institution as small as Caltech. The other was certainly more feasible, in that since they had narrowed their focus it was possible to develop a relatively small program in terms of the number of people, number of graduate students, and to work very intensively on becoming top-notch practitioners in that relatively narrow field.

PRUD'HOMME: Hallett Smith said at one point that the social sciences were trying to make themselves more like the physical sciences.

SWEEZY: That, I think, is true.

PRUD'HOMME: And that they're pursuing the elimination of quality, of value judgments.

SWEEZY: That I don't know. I certainly think the first is true—that they were trying to ape the physical sciences.

PRUD'HOMME: Which, I guess, is understandable in a scientific institution.

SWEEZY: Well, it's understandable, yes. On the other hand, it's not the only way you can go. Traditionally, the humanities and social sciences at Caltech had not been viewed as part of the intensive research program that we had in the physical sciences. They've been viewed as a supplement, which would give the students something they didn't get which they wanted, but not on a basis comparable to the physical sciences. There were, however, a number of people in the division who were unhappy about that. And of course, with the change in focus, other people who would have been unhappy about that were brought in, so that they've now definitely moved to not exactly competing with the physical scientists but trying to emulate them.

PRUD'HOMME: When the graduate program was started, did you find that you attracted students who had been majoring in sciences to then change?

SWEEZY: Not very much, no. I'm not entirely sure, but I think the graduate students here in social sciences have come mostly from outside. There've been few Caltech students. Now, there were, of course, Caltech students going into [the humanities], especially economics, over a period of ten years or more, before the new programs were started. They were physicists, mathematicians, and perhaps in some cases chemists, biologists, who went on to do graduate work at Harvard or MIT or Berkeley; their scientific background and aptitude made them prime candidates. They were much sought after by the graduate schools. So that that was the direction

in which our students went. I don't think that that has changed significantly as a result of the new programs here.

ALAN R. SWEEZY

SESSION 2

March 1, 1982

Begin Tape 2, Side 1

PRUD'HOMME: Dr. Sweezy, you wanted to discuss further Caltech's relationship to the AUFS. Could you tell me more about that?

SWEEZY: I find a memorandum I wrote in February 1972, in which I say:

In recent years, doubts have been expressed about the value of continuing the AUFS program. These doubts, based largely on the ground that the Caltech faculty itself provides the broad diversified coverage the AUFS was brought here to supply. I think this is not entirely justified. The only area we have any offerings on is Africa. In other respects, we have actually narrowed our focus. The new social science program seeks to gain depth and strength by concentrating on a limited range of analytical and quantitative problems relevant to the developed countries or concerned with general features of social systems. We've dropped both the economic development and the socialist economies courses. We have no Latin American or Asian experts of any kind on the faculty. I think it would be too bad to narrow the scope of our offerings still further by dropping the AUFS program.

PRUD'HOMME: Can you give me an example of the kind of reporting you had under this program from an AUFS person in the field?

SWEEZY: Let me pick the population program. There would be many other possible examples of the relation between Caltech and the AUFS. But of course I was concerned primarily with the population program, and I might pick an example or two from that.

In the early period of the program, Tom Sanders was stationed in Brazil and was writing about the attitudes toward birth control and population growth that he found there. In a letter to me, he refers to the question of the effect on the birth rate of rising acquisition of consumer goods. In the middle class, he says, among the Brazilians he has talked to about family planning, they all say the same thing: "It is so expensive to bring up children, so we only have two." I think this is linked to giving the children what people in the middle class expect to give them—education, but also clothes, travel, opportunities, recreation. [Sanders goes on:]

When we look below the middle class, I sometimes wonder how people survive in the Brazilian cities. If we took statistics seriously, they'd probably be dead. Many poor people do, however, manage to survive without any of the amenities we consider important. If they get some rice and beans most days, they make it. One of the interesting things I've found is that most of the lower-class people I know have at least heard of birth control, and some use it. These are not low-low but middle-low or upper-low. They may live in a favela, but they try to send their kids to school, aspire to a TV set, have some furniture in their house. I feel there is a line in the lower class of Latin America which separates those for whom life is survival from those for whom life involves options, however limited, of education and consumption. This is especially so in Brazil, which is highly capitalistic, advertising mentality, and so forth. Even on very low levels, these budding consumers sometimes will use birth control.

This is an example of the intimate knowledge of and close contact with the people in the countries where the AUFS people were stationed. It added what seemed to me an important element to the more formal type of scholarly research and reporting. I could give many other examples, but this perhaps will suffice to indicate the kind of thing they were doing and the kind of communication that took place between them in the field and us at Caltech.

PRUD'HOMME: I'd like to go back to your early years with the institute, in the early fifties, and ask what it was like in Pasadena then. What was the relationship of Caltech to the Pasadena community? What was it like socially for you and your wife? Did you have many social obligations to the institute or to the community because of your relationship with Caltech?

SWEEZY: In our case there were no particular obligations. The atmosphere was informal, easy. One of the great things about Caltech was the opportunity to meet and become well acquainted with people in other fields. The institute is small. The faculty is bigger than the student body, but also not so big that you were confined to your own special group—as I understand is often the case in places like Harvard or Berkeley or MIT. The social life otherwise was certainly extremely pleasant.

PRUD'HOMME: It wasn't very rigid?

SWEEZY: It was not rigid at all. It was very easy, informal, and flexible.

PRUD'HOMME: Did you see students socially?

SWEZY: Yes, we saw students. There was some effort made to have students come to the house. I felt that that was not of great value—that the informal contacts with the students around the campus were more important. Also, I was a nonresident associate of Ricketts House for a number of years and went there from time to time to have dinner or lunch. Also, Sue and I went to their parties occasionally. But those contacts it seemed to me really weren't as important—they were pleasant, but they weren't as important as just seeing people in your office or just walking across the campus.

PRUD'HOMME: Did you have any favorite students?

SWEZY: Oh, yes, there were.

PRUD'HOMME: Can you describe some?

SWEZY: Well, that would be rather difficult, because there were many of them over a long period of time. And, of course, there was a good deal of diversity among them. They were very bright, all of them. Some of them were actively interested—more actively than the average—in economics, economic policy, social science. What kind of thing did you have in mind?

PRUD'HOMME: I was just curious, about the student who came to Caltech thinking of pursuing science and then switched over to economics.

SWEZY: Now, I'm glad you mentioned that, because that suggests a misconception that is fairly common—that the students I had the most rewarding relations with were those who shifted into economics. And that's not true. In fact, to a considerable extent, not all but some of the students who shifted to economics were the less interesting ones. And it was the students who continued in physics or mathematics or chemical engineering—I remember at one period there were several students in chemical engineering who took a great interest in economics and in business, and

who were very good at it, had keen insight, showed a good deal of originality and initiative. But they continued in their own profession. This was simply an extension of the range of their intellectual interests. I think of Maslow's characterization again, that these students had wide-ranging interests—a hunger, he called it—for knowledge in other fields but that this did not necessarily mean, and for most cases it did not mean, that they had abandoned science. It was simply that they were so talented and had so much intellectual energy and curiosity that they took up other fields.

Now, this is true of the faculty also. I think, for instance, of Jesse Greenstein, one of our leading astronomers, who, among other things, is something of an expert on Japanese art, who certainly has a wide range of knowledge of literature, and who has taken a very active part in the Caltech play-reading group. This is quite common. The conventional stereotype of the scientist and engineer, we discovered before we'd been here very long, was totally mistaken.

PRUD'HOMME: In other words, it's really a collection of Renaissance men.

SWEEZY: In the sciences, yes. That's right.

PRUD'HOMME: Did you get any sense, in the three decades that you've been here, that there were waves of popularity of different departments at the institute?

SWEEZY: Yes, that did happen. When I first came, physics was not only at the top in terms of prestige but also in terms of the number of students. The physics major was a very substantial one at that time and attracted certainly a disproportionate share of the best students.

Some changes began to take place. An illustration was the case of Barclay Kamb, who later [1972] became chairman of the Division of Geological and Planetary Sciences. Barclay was perhaps the outstanding physics student in his year [Caltech BS in physics, 1952], and the physics department, or the physicists here, were a bit shocked when Barclay decided he was going to shift into geology—geology being considered one of the lower sciences. Then, perhaps the biggest change in terms of numbers occurred in mathematics. In my first few years here, there were only four majors in mathematics. And in the course of the fifties that changed radically, so that by the end of the fifties I think there was something like forty. Now just why

this occurred I'm not clear. Of course, the interest in computers, but that came a little later. And I really don't know either why we had such a small number of math majors in the earlier period, or why it grew so fast. It is said that [Richard P.] Feynman has said that he had to invent his own math rather than getting it from the mathematicians.

PRUD'HOMME: Can you tell me about notable professors on campus, ones that were very popular with students?

SWEZY: Of course Feynman is the leading example. Harry Gray in chemistry.

PRUD'HOMME: What qualities do they have that makes them popular?

SWEZY: At Caltech, to begin with, they must be very good in their fields. The Caltech students are bright and they do understand and appreciate quality on the part of the faculty. Another thing would be interest in students, of course—a disposition to associate with them, to establish a direct kind of relation. And then in addition to that, in the case of Harry Gray, and I gather also of Linus Pauling, a kind of dramatic talent.

PRUD'HOMME: Something outrageous.

SWEZY: Yes. They said that Linus Pauling would pull a slide rule three feet long out of his pocket—stunts, in other words, along with brilliance and outstanding scientific competence.

PRUD'HOMME: Have you ever tried to explain economics to the faculty?

SWEZY: To those who are interested, but not otherwise.

PRUD'HOMME: Do they ever have seminars for other members of the faculty?

SWEZY: I don't think so. I don't remember any. Some of the science and engineering faculty were much interested in economics and were very, very talented. An outstanding example is

Rolf Sabersky [professor of mechanical engineering]; he's a longtime friend of mine with whom I have occasional conversations about what's going on in the economy. And I usually not only enjoy the conversations but get some new insights from them. He has an extraordinary basic understanding of not just the formalities of the conventional aspects [of economics] but of the real issues involved.

PRUD'HOMME: Have you seen a change in the atmosphere of the institute in the last few years?

SWEEZY: I think there has been a change. I don't feel competent to comment on the atmosphere in the institute in general, because I don't feel that I'm as closely in touch with what goes on in the science divisions as I was. The change, of course, has been quite marked in Humanities and Social Sciences. Among the students, the thing that has been rather striking—at least in my experience in the last few years—is a sort of quietism, and yet that isn't quite right because they are very good students, they write very good exams, they are extremely intelligent. But they're nonaggressive, much less aggressive in discussion than they were in, well, the sixties or actually also in the fifties. And I don't know why this is. I have heard people say that's true in other places as well as at Caltech.

PRUD'HOMME: And this is across the board, not just scientists or economists?

SWEEZY: Among students, in general. I'd say my best students are now as good as or better than they've ever been. But they're just quiet.

PRUD'HOMME: Maybe they don't see any necessity for beating their chests.

SWEEZY: Maybe, yes, that may be. I am puzzled by this lack of aggressiveness—whether it's a kind of intellectual modesty, I really don't know.

PRUD'HOMME: They are still intellectually aggressive in terms of their work.

SWEEZY: Oh, yes, they're still very good. In fact, as I said, perhaps better than ever before. And

of course some of the aggressive students have not been the top in terms of intellectual brilliance. That, I think, is fairly common, although even there I can think of exceptions. The first class of undergraduates I ever taught economics to was the class of 1952. And Barclay Kamb, who later became chairman of the geology division, was a member of that class. Ron [Ronald L.] Shreve, who is a professor of geology at UCLA now, was a member of the class. There were several others who've become prominent in academic life. And they all wanted to talk at once. It was a very lively class; it was a class that was practically hectic, it was so lively. They weren't any smarter than the class I've had this year; but the class this year seemed to take in knowledge, to consider it quietly, and to let it stand.