

DEMOGRAPHIC DESTINIES

Interviews with Presidents of the Population Association of America

Interview with Amos Hawley PAA President in 1971-72



This series of interviews with Past PAA Presidents was initiated by Anders Lunde
(PAA Historian, 1973 to 1982)

And continued by Jean van der Tak (PAA Historian, 1982 to 1994)

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AMOS HAWLEY

PAA President in 1971-72 (No. 35). Interview with Jean van der Tak at Dr. Hawley's home in Chapel Hill, North Carolina, April 6, 1988.

CAREER HIGHLIGHTS: Amos Hawley was born in St. Louis, Missouri in 1910. He received all his degrees in sociology: the B.A. from the University of Cincinnati in 1936 and the M.A. and Ph.D. from the University of Michigan in 1938 and 1941, respectively. He was on the faculty of the Department of Sociology at the University of Michigan from 1941 to 1966 and was Chairman of the department from 1952 to 1961. From 1966 to 1976, he was Professor of Sociology at the University of North Carolina at Chapel Hill and since then has been Professor Emeritus at North Carolina. Among other posts, he has been demographic adviser to the Government of Thailand (1964-65) and to the Economic Planning Unit and Statistics Department of the Government of Malaysia (1973-74). He has been president of the American Sociological Association [1978] as well as of PAA. He has been a leader in the field of human ecology and also in urban studies. His numerous publications include such monographs as The Population of Michigan, 1840 to 1960 (1949), Human Ecology (1950), Demography and Public Administration (1954), The Changing Shape of Metropolitan America: Deconcentration Since 1920 (1956), R.D. McKenzie and Human Ecology (1967), Urban Society: An Ecological Approach (1971), The Population of Malaysia (1976), and Human Ecology: A Theoretical Essay (1986). Dr. Hawley died in Chapel Hill, North Carolina, in 2009.

VDT: How did you first become interested in demography?

HAWLEY: As a graduate student at Michigan, I had a course in population--not a formal demography course. It was not a very sophisticated course but it was enough to excite me, so I went on from there. It fitted well with my other interests in human ecology. It was given by R.D. McKenzie, the professor I went to Michigan to study with.

VDT: You went to Michigan because McKenzie was there; he was well known in human ecology?

HAWLEY: Right. He was one of the so-called "Chicago School." He'd come to Michigan as chairman of the department of sociology--the first chairman, as a matter of fact; sociology had just separated from the department of economics. I read a great many of his things as an undergraduate and decided I wanted to pursue study with him. I was introduced to demography, and it remained a long-lasting interest.

VDT: What were the topics of your master's and Ph.D. theses?

HAWLEY: My master's thesis was on migration, the resistances to migration.

VDT: In the U.S.--internal migration?

HAWLEY: On migration generally, internal and international. My doctoral dissertation was on the significance of size in the complexity of organizations. That was a quantitative study, for the most part, based on the Census Bureau's Census of Business, which started around 1933. They still have them, but at that time they were fairly new. It was a new data set that hadn't been available before.

Before I was very well along in my studies at Michigan--I think it was in my fourth semester--McKenzie became very ill and I had to take his classes. One of those classes was a huge course in

human ecology--about 100 people. The other was a course in population. This was presumptuous, but it wasn't my fault; I was told to do it.

Then I stayed in that role. McKenzie died very soon after I started this teaching assignment. I was the logical person to fill this spot and they kept me. This was in the late 1930s. Candidates for jobs were not numerous and positions were even less numerous. So, in retrospect, I was delighted to have that opportunity. So I stayed on in the department of sociology at Michigan and became chairman in 1951.

VDT: Along the way you picked up your doctorate; you did that while you were teaching?

HAWLEY: Yes. The graduate program at Michigan was not very structured. The students taught themselves about as much as anything else.

VDT: You learnt from reading assignments?

HAWLEY: Oh yes--and seminars. Well, my first year as a master's candidate, I had to take a full load. After that I never took more than a course a semester. But we had a very rigorous preliminary examination program. We had five examinations, no choice, done on five consecutive days and for eight hours a day. This was for Ph.D. candidates. That happened about my third year at Michigan. That had been preceded by a very intense period of reading and tutorial consultations with faculty members. Of course, students learn a lot from one another, and, of course, as a teacher I was learning a lot. Teachers learn more than their students, I think. In any event, that's how it was done.

I finished in 1940. I was supposed to take the oral examinations in May; convocation was in June. McKenzie died the last week of April. He was my dissertation chairman, and I couldn't have the final examination. They had to get a new chairman and reconstitute the committee.

VDT: This was for the doctorate. You had finished your dissertation?

HAWLEY: Yes, this was the oral examination. I don't know whether McKenzie had read it. Anyway, I did get the examination concluded in June or July, but Michigan had no summer convocation, so I had to wait till January for the convocation.

Beginning in September of 1940, I was a teaching fellow. When I got the doctorate a few months later, I became an instructor. They were very sticky about these things; I couldn't be an instructor without the degree, though everything else was done, but the degree hadn't been granted.

January 1941 came and I got the degree and became a full-fledged member of the faculty, and continued to teach ecology, population, migration courses, occasionally an introductory course. Twelve hours of teaching were then required. Now it's an insult to be asked to teach more than two courses. We had to teach four. Pretty soon I found myself teaching a course in statistics; there were no courses in statistics before then. That was again presumptuous. Well, so much for those years. Where do I go from here?

VDT: You mentioned that you were interested in human ecology already as an undergraduate. Then you have done a lot in urban studies and in population density. How did you come to be particularly interested in those fields?

HAWLEY: As an undergraduate at Cincinnati . . . I had been out of school for three years after my freshman year at Miami University and decided I had to get back to finish an education and I thought I'd go back and study English literature. But I happened to hear about a very exciting professor of sociology. I sat in his class a few times and decided I'd work in that area. He happened to be a

Chicago product and one of his interests was ecology, so under his guidance, I read everything that was written on ecology. James Quinn was his name. He later wrote a book on ecology. McKenzie came to give a talk at Cincinnati. I was very much intrigued by him and his writing, so when I applied to graduate school, I applied to Michigan. In those days, the education offered to both undergraduate and graduate students was not very good. As I mentioned, there were no courses in statistics.

VDT: You're talking about demography?

HAWLEY: I'm talking about quantitative techniques. There was no instruction in that at all at Michigan, either at the undergraduate or graduate level, until I started a course in statistics, within the department of sociology.

VDT: You started human ecology under Professors Quinn and McKenzie. How did you go on to urban affairs and population density?

HAWLEY: Well, urban matters were within the purview of ecology. The Chicago group viewed Chicago as a laboratory for their studies of ecological theory. There was no clear separation between those studies and ecology. There has become one, but at that time there wasn't. So it was expected of anybody interested in urban studies to be proficient in ecology; the marriage was very close. And so it was in population. These things were different aspects of the same prism.

Population density was no major interest. It happened to arise as a concern with me quite late, and more or less shortly before my presidential year in PAA.

VDT: Your presidential address was called, "Population Density and the City" [Demography, November 1972].

HAWLEY: Well, there'd been a lot of stuff in the literature on density as a causal factor of all kinds of maladies, behavior, in the cities and I thought it was useful to look into these matters. Density wasn't really a major concern of mine, although many aspects of population complement one another. I was interested in fertility, in migration, population distribution. Most of my work was done in population distribution, I think. But I went out to Thailand to direct a family planning demonstration project [Photharam study, a baseline survey for family planning program experiments in Thailand, 1964-65]. That was my first and last interest in family planning. I haven't pursued that at all.

VDT: How was it that you were asked to do that for the Population Council?

HAWLEY: I don't really know. Well, I'd worked in the Philippines. I went there for the U.S. Overseas Missions, USOM, that preceded AID. It had a contract with the University of Michigan to provide advice to the government of the Philippines on certain matters, introducing teaching. I taught at the University of the Philippines and I was adviser to the government on population distribution [1953-54]. In order to pacify the insurrectionists, they were promising them land if they would turn in their arms, and there were all kinds of problems of mobilizing and redistributing and then settling them. I worked on that.

Also, I had been adviser to the Ford Foundation in the Caribbean area--Jamaica and Trinidad and Tobago. I went to the Caribbean many times.

VDT: What were you doing there?

HAWLEY: I was looking over the population programs they had, their census activities. I helped

select the person to run the family planning program in Jamaica. Later I devised a census for the Netherlands Antilles.

VDT: Jamaica was one of the early family planning programs in the Caribbean.

HAWLEY: Yes, although I think Barbados had been doing something. Jamaica and Trinidad and Tobago and one other island had formed a federation that broke up. Nevertheless, they continued to have very close relationships. They had a common library under one administration and common planning on various economic development issues. So family planning in Jamaica was not unrelated to family planning in Trinidad and Tobago; at least they interchanged ideas and tried to support one another where they could. So they had some general discussions and when I first began to go there the question was who was going to direct it, what kind of person should he be, and what facilities would he have. We picked a man who turned out to be not a very good choice. This was in the mid-1960s. I had returned from a Fulbright in Italy [Fulbright research scholar, University of Naples, 1959]. In 1960 I went to the Netherlands Antilles.

VDT: You say your time in Thailand, in 1964-65, was the only time you have been involved with a family planning program. But now you say you at least recommended someone for the family planning program in the Caribbean.

HAWLEY: Yes, but I was not actively involved in operations in the field.

VDT: You were involved in Thailand, with a very important baseline survey before the government really got into their program, which has been very successful--with a big help from Mechai.

HAWLEY: Right, very successful. The Thais were ready for it. They didn't have any religious problems with family planning. They were a little worried about the abortion effects of intrauterine devices, but apart from that there was no resistance. We worked in a rural village [Photharam] some 85 kilometers west of Bangkok, but an isolated place so far as people's sophistication went. Nevertheless, they had been having sterilization. It was done often by folk doctors, often with infections following.

VDT: But they were obviously that anxious to have them?

HAWLEY: Yes. As a woman told me, "My mother had eight or nine children, but only four of them got to adulthood. I'm having four and all of them are getting to adulthood." She said that was too many to handle. They were ready for it and it has been a very successful program.

Two or three doctors at Chulalongkorn Hospital in Bangkok decided they'd like to begin to supply patients with intrauterine devices. We gave them a supply of IUDs. The word got out, entirely by word of mouth, and people came in from all over the country for services. Monday morning was the registration day and there might have been as many as 800 women sitting out on the grass waiting to register for this service. They'd come by all kinds of transportation. It got to be such a burden; these doctors couldn't do anything else but insert these things and remove them. It got very boring.

VDT: It's obviously been one of the most successful programs in the world. Although they're not down to replacement fertility yet, they're approaching it.

HAWLEY: They've cut it in half or more.

VDT: You went to Malaysia some years later [1973-74]. What did you do there?

HAWLEY: The thought there was that the economic planning unit of the government should have a demographic unit within it in order to give a firm demographic basis to the planning. I went out there partly to bring this about, partly to help the census exploit its data; spent half time in the family planning unit and half time in the census office. This was after the 1973 census. The English civil service system was such that people only did what was written into their job specifications, so the director of the census took the census but he wasn't under any obligation to analyze it. So here were all these data lying there and the economic planning unit and other agencies needing population information. So we started to exploit these data. Another young man, Charles Hirschman [PAA President in 2005], who was then at Duke, went out with me. He stayed in the census full time; I was there half time. We didn't get a demographic unit established but we did make a significant impact on the five-year plan that was shaping up. For the first time, it did incorporate a lot of thinking about population trends.

VDT: You had some local Malaysians who worked with you on the analysis? Had they been trained before, or did you train them on the spot?

HAWLEY: No. In economic planning there were three, in addition to myself. But one of them was an administrator and he didn't do anything. The second one was very casual, concerned mainly with other interests. The third one was a young Chinese, a bright fellow, who did a lot. He since did his MBA at Harvard.

VDT: One question I wanted to ask you was about the importance of Michigan, where you were until 1966, and the University of North Carolina in the training of demographers from less developed countries and the work you did out in those countries, the close ties between them. Why is it that those two universities became outstanding in that? Was it because you and Ronald Freedman did go out and do these things?

HAWLEY: Well, Ronald Freedman and I and David Goldberg at Michigan developed what is now the Population Studies Center at Michigan. Under Ron's guidance, as you know, it has flourished as the outstanding center in the country.

VDT: In all ways, or in its ties with less developed countries?

HAWLEY: In all ways. It's really first-rate. I assume it will remain so, now that Ron has retired. That remains to be seen. He's a man who is gifted in everything he lays his hands on; he's a success.

In the late 1960s, interest was being developed here at the University of North Carolina. Before I got here [in 1966], there was interest in population training. It was largely training for services rather than training for research. That was when the Ford Foundation money was coming in. Moye Freymann was hired as the director of this developing center [Carolina Population Center], before it had really taken form. I came in at the same time to bring sociological interests to the Center. This became a developing and growing thing at the university. It is now on a sounder basis than it was when Freymann was director [1966-74]. Freymann was more interested in services. The faculty is more interested in doing research and teaching.

VDT: Which faculty are you talking about? I get confused between the Carolina Population Center and the main faculty of the university.

HAWLEY: The Center has a director and some supporting staff. All of the professional personnel are on the faculty of the social science departments, the School of Public Health, the medical school. Now they're called associates--and this was from the 1970s, I think--who get services from the Center and do a lot of the work of the Center. So the faculty are in a sense the Center.

[Richard] Udry has done a very good job in holding these people together, stimulating them, and providing them with resources. So under him, the Center has flourished. Under Freymann, there were all kinds of stresses and strains, because a lot of the faculty wanted little or nothing to do with services. Others did a lot with services. The public health people wanted to advise on family planning programs, engage in institutional development, as they called it, including means of introducing population programs into developing countries. They even tried to start a program called population education, for elementary schools.

VDT: In the U.S. or developing countries?

HAWLEY: In the U.S. and in developing countries. I don't think it came to anything.

VDT: That was in the early 1970s?

HAWLEY: Yes. Elementary schools are not the place to start that kind of instruction.

VDT: Well, I don't know. I come out of the Population Reference Bureau, which has had a strong population department for many years. It's true they tried to get it down to the elementary school level, but it mostly comes in high school.

HAWLEY: True.

VDT: You obviously had a part in Michigan and North Carolina's developing into leading centers of population training. That leads into my next questions, one of which is who you see as your leading students. I've already had an interview with one, who gives you a lot of credit. But first, who have been some of the leading influences in your career? You have mentioned Dr. McKenzie, and Quinn, going back to your undergraduate work in human ecology. Who would you say have been some of the important people who influenced you in the directions you've taken in your career?

HAWLEY: One person at Michigan was a man named Clark Tibbitts. He wasn't interested in population as such, but he was a very nice scholar and I learned a lot from him about methodology. Later I paid a lot of attention to Frank Notestein. My main connection was through his writings. Later, when I was connected with the Ford Foundation, he was at the Population Council and I then had close personal relations with him. He was a very encouraging man. Extremely tolerant of other ideas; himself, very inventive. Delightful fellow to work for. I worked with Warren Thompson on a study of metropolitan changes. He was at the Scripps Foundation with Pat Whelpton.

VDT: Was that one of the census monographs?

HAWLEY: No, this preceded the census monograph. My work came out in a book called The Changing Shape of Metropolitan America [1956], which was a population deconcentration study. It was about that time that Ronald Freedman got involved with Whelpton on the national study of fertility, the Growth of American Families.

VDT: That was in 1955, the first one. What else about Freedman? You must have worked very

closely at Michigan.

HAWLEY: Yes, we did. In fact, he was a student in one of my classes when I was an instructor. Even then he made an impression on me, because he asked penetrating questions. Then he went off to the war; then went to the University of Chicago; and was eager to get back to the faculty when he finished his work at Chicago. The Michigan department was delighted to add him to its faculty [in 1946].

I was chairman of the department [of sociology] from 1952 to 1961 and I was rather instrumental in helping to get the Detroit Area Study begun. My most important contribution was to get that thing on the university's regular budget. I was able to argue that scientists have their laboratory, which is financed. We needed this kind of training facility and here was a good way to do it.

VDT: By training facility, you meant here was an opportunity for students to be involved in everything from data collection to analysis?

HAWLEY: Right.

VDT: Wasn't William Pratt involved in that?

HAWLEY: Yes, he was. And John Aird, you know him?

VDT: Oh yes. Bill Pratt, of course, went on to direct the National Survey of Family Growth.

HAWLEY: Yes. A lot of people around the country went through the Detroit Area Study. It was a great training facility--painful, for them, because they had to work very hard. They had to participate in all steps of the design, do the interviewing, do the analysis.

VDT: That was done by the students--not by the Survey Research Center of Michigan, which is so well known?

HAWLEY: This was done by the students. Later it did get some administrative services from the Survey Research Center. We'd have about 20 or 30 students in the study every year and a number of faculty. It was given the opportunity to design a research study that could be carried out in Detroit through this facility. Two faculty members would work as a pair, working with the students.

VDT: The Detroit Area Study interviewed women and then went back 16 years later?

HAWLEY: Yes, there were some follow-up studies, some by telephone and some by direct interview. It wasn't all fecundity and fertility. They studied various kinds of problems, some of them political problems, voting behavior, some migration intentions.

VDT: Were you responsible for the migration intentions?

HAWLEY: No, I never did. I was chairman of the department; I didn't have time for that kind of thing. The kind of problem they studied each year depended on the research interest of the faculty member who joined the project and his joining it was the decision of Ron and a committee as to whether or not it was feasible to do the proposed study and had training value for students. So there was some selection among the faculty to have this opportunity. But, as I say, the range was

considerable.

One of my students at the time was Leslie Kish. He was not long ago president of the American Statistical Association. He designed the Chinese fertility survey of 1982 with Ansley Coale and Ron. He's been important--not so much in demography; his field is more in sampling, the problems of cluster sampling. He's written several books on sampling and measurement of sampling errors. Don Bogue was another one of my students, my first student, in fact.

VDT: Your first student to get a Ph.D.--before he went off to the war?

HAWLEY: No, after he came back. His interest then was not in demography as such, it was in ecology. He wrote a dissertation on urban matters. He later got into population.

VDT: Did you steer him that way?

HAWLEY: No, I don't think so, although we did a paper together on population distribution, quite early. He then went to the Scripps Foundation, his first job, and of course they were primarily concerned with population questions. Then he went to the faculty of the University of Chicago and developed his Community and Family Study Center.

VDT: One of your students whom I've interviewed recently and who praises you as a leading influence in his career is Jack Kantner.

HAWLEY: Well, he did his dissertation under Ron Freedman.

VDT: Yes, but he nevertheless mentioned you specifically. You have had your own particular interests but what do you see as leading issues in U.S. demography over the years you've been involved, say, since World War II?

HAWLEY: There were two issues really. One was the demographic transition, which Notestein is often credited with formulating. There had been a lot of concern about population decline in the late 1930s. Then, of course, the 1940s came and trends turned the other way, so an interest in fertility blossomed. That hadn't been terribly prominent beforehand.

VDT: Even though they were concerned about the declining birth rate in the Depression?

HAWLEY: Well, it was there. But the main problem, of course, was the relation of population to the economy and how it affected economic events and how economic events affected population. And the relation of population movements to urban growth and change. Internal migration in the United States was a big concern under investigation by the Truman committee. When Truman was a senator, he was chairman of a committee to investigate, first, internal migration; later it was called national defense migration. That was in the 1930s and early 1940s. They put out a big 27-volume report. So these issues were uppermost at the time. Fertility, of course, has continued to be a prominent concern and I sometimes wonder if they haven't exhausted the topic.

Now, I think, migration is becoming increasingly important, in developing countries in particular--internal migration within developing countries. In 1977 the United Nations took a survey of population policies of about 115 countries; about 80 of these countries had population movement policies. Very few of them had implemented them, but concern was there. I think since then, they've begun to do more with them. More recently, the growth of nonmetropolitan population has attracted particular attention, in this country primarily. I don't think that has happened in developing countries

yet; they don't have the transportation facilities that America has.

VDT: I thought the interest in nonmetropolitan growth in the U.S. was in the 1970s, when data between censuses showed that nonmetropolitan counties grew faster than metropolitan counties for the first time since the 1790s almost. But it's changed now.

HAWLEY: It's changed, but the question is, is it a temporary change or is it not?

VDT: You think it might be temporary?

HAWLEY: I think it might be a temporary change, yes--that there will be a shift again to faster growth in nonmetropolitan counties.

VDT: Well, from 1980 to 1984, there was once again faster growth in metropolitan counties.

HAWLEY: Yes, and adjacent ones. I think this is a temporary reversal of the long-term trend toward deconcentration.

VDT: So you think the 1970s were the beginning of a long-term trend?

HAWLEY: I think the 1970s were a continuation of an underlying long-term trend. Metropolitan areas have been deconcentrating since 1920. The area of high growth rates moved progressively farther out. It isn't a postwar phenomenon; it's a long-term phenomenon and it just looked as though it had had a quantum leap in the 1970s--to the areas beyond the counties adjacent to metropolitan areas.

It's reasonable that this should happen, because if you facilitate transportation and communication, people no longer have to be close to one another. Of course, a lot of heavy industry is being robotized and service industry is gaining in importance. So I think the trend in the late 1970s and early 1980s is an aberration. It will change again.

VDT: So, you think of the ring cities around big cities that attract service industries and then people commute from still farther out, from what is technically still counted as nonmetropolitan counties?

HAWLEY: Yes, and this area is an example. This area is growing by leaps and bounds.

VDT: Research Triangle Park? That must be a metropolitan county though, isn't it?

HAWLEY: Yes, although some nonmetropolitan counties are getting growth out of this--Chatham County to the south of us, Person County to the north, and various other ones. And Orange County is metropolitan by courtesy of the Census Bureau, in that metropolitan has been very loosely interpreted.

VDT: Of course, there's just been another redefinition of SMSAs.

HAWLEY: Where there's political clout, there's going to be a metropolitan definition.

VDT: You don't think the county you're living in now, including Chapel Hill, is really metropolitan?

HAWLEY: It's certainly suburban to Durham and Raleigh.

VDT: Well, the metropolitan definition includes those suburban counties that are socioeconomically

tied in with that central city.

HAWLEY: Yes, but we have three cities, no central city--Raleigh, Durham, and Chapel Hill. Well, that's beside the point.

VDT: Not really. My very last question in the interview was going to be, what do you think about central cities? In your PAA presidential address of 1972 ["Population Density and the City"], you were talking at that time about rejuvenating central cities. Do you think that's a trend that will continue?

HAWLEY: I don't think that I was optimistic about rejuvenation of central cities.

VDT: I don't think you were. You thought that gentrification was pretty superficial perhaps.

HAWLEY: Well, we don't know. The population in those gentrification programs are either single adults or couples without children and it does still seem that when the family takes form, with children, they move out. So it's a question of whether that kind of population can supply much growth for the old centers of cities.

In the meantime, of course, the city's economic base, in large metropolitan centers, is becoming more a matter of information processing than large-scale production. That has moved out pretty far and has become mechanized as well. So it's a question of whether information processing as an economic base can support these big agglomerations. And, of course, that puts gentrification into doubt. There have been some very interesting examples of it; many cities are doing interesting things with renovating their old buildings. It's very costly; I hope they can occupy that space.

VDT: Washington, D.C., is a prime example of that.

HAWLEY: Yes. They run over \$100,000, a lot of those apartments. So I'm not very optimistic about the future of the large city. But I'm not prepared to say what's going to happen. The whole urban population might regroup in some other pattern, perhaps in smaller-scaled cities.

VDT: Do you think that would be a good idea?

HAWLEY: I don't see anything wrong with it, except that there's a big investment in the large city. I don't see how it's going to be amortized, or liquidated, as the case may be. The federal government has muddied the waters on that considerably; their policies have worked in the opposite fashion.

VDT: Give me an example of that.

HAWLEY: Urban renewal, neighborhood rehabilitation. They've put in a lot of money trying to restore the tax base of big cities, while other agencies were financing sewers and water and amenities in the suburban areas, encouraging deconcentration. I don't think the federal government has had a coherent policy at all on population distribution.

VDT: Now let's talk about your connections with PAA. Do you remember the first meeting you attended?

HAWLEY: Not definitely; it would be back in 1945.

VDT: The meetings were suspended during the war, after 1942. The first meeting after the war was in 1946, in Princeton.

HAWLEY: I think I was there.

VDT: There were two meetings in 1946. There was a second special meeting in New York in the fall [to renew contacts with demographers from other countries]. The 1947 meeting was in Princeton again and Princeton was the venue for many meetings until 1955.

HAWLEY: I became a member in 1945 and attended as many meetings as I could, depending on whether the university was paying expenses or not. I remember one particular one here at Chapel Hill in 1952, I think it was.

VDT: There was a meeting at Chapel Hill in 1951. Rupert Vance was the instigation for that.

HAWLEY: I had a paper there. And I attended several of the Princeton meetings.

VDT: What do you particularly remember about the Chapel Hill meeting?

HAWLEY: Well, one of the interesting aspects of the PAA in its early years was that it was a small group and ran one session at a time; everybody met in that one session. In the afternoon, there would be another meeting and everybody who was going to a meeting at all would go to that session. That was true of the meeting here at Chapel Hill. We stayed at the Carolina Inn. It was small, only half as big as it is now; it couldn't accommodate many people. Rupert Vance organized transportation from the airport. I think Dan Price discussed my paper at that meeting. It was on a migration study of Michigan movements. [Dan Price did indeed discuss Amos Hawley's paper on "Intrastate Migration in Michigan, 1935-1940," but this paper was presented at the 1952 meeting, in Princeton.]

VDT: All the notables were there to hear you.

HAWLEY: Everybody went to everything; had to listen. Dudley Kirk was there and the Taeubers, Dorothy Thomas, Warren Thompson and Whelpton.

VDT: Rupert Vance was elected president at that meeting and served from 1951 to 1952. He was followed by Clyde Kiser. Did you ever work with Clyde Kiser?

HAWLEY: I've known of him. He's now retired down here, in Bessemer City, about 250 miles away.

One of the interesting persons [at early PAA meetings] was Dudley Kirk. Dudley was a very serious fellow, acted like a Bostonian--reserved and very sedate. He was instrumental in my going to Bangkok, or after I agreed to go, he did a lot to facilitate my going, helped with preparation.

Another person of considerable interest at the time and for some time thereafter was Henry Shryock. I was first vice-president when he was president, in 1955-56. The meeting then [1956] was at Ann Arbor. We entertained the whole group at our house--Ron Freedman and I did. The Freedmans and the Hawleys lived next door to each other.

VDT: You had an open cocktail party and people wandered from one house to the other?

HAWLEY: Yes.

VDT: You were first vice-president then, so you were very involved.

HAWLEY: First vice-presidents then were responsible for the program.

VDT: That gave you more to do than most first vice-presidents now have. How did you manage that?

HAWLEY: One created his own internal group to help identify people and topics and other related matters, so I just drew upon my colleagues in the department--Ron Freedman, David Goldberg, and some of the students.

VDT: Was it just happenstance that the meeting that year was at Ann Arbor?

HAWLEY: I think so.

VDT: Was it as they do now, that they would plan the meeting place some years in advance?

HAWLEY: Well, at least a year in advance. The hotel accommodation problem wasn't then a consideration, and not for some time thereafter.

VDT: Where were the actual meetings at Ann Arbor?

HAWLEY: They were in a university building. By that time, there were several overlapping sessions. Not many; maybe two or three in the morning; two or three in the afternoon. There was a banquet; I think it was held in what was then the Michigan Union. [There were two simultaneous sessions on the first morning of the 1956 meeting, the first meeting with overlapping sessions. Sessions were held in the Rackham building and the banquet in the Michigan Union.]

VDT: By the time you were president, in 1971-72 [1972 meeting in Toronto, Canada], was the president responsible for the program?

HAWLEY: No, we had a program committee by then.

VDT: Which would be headed by whom?

HAWLEY: It was an elected position, and the committee was elected as well.

VDT: So they could be people in different geographical locations. It wasn't so easy.

HAWLEY: Sure, although I think the chairman must have called upon his nearby colleagues. [First vice-presidents were responsible for meeting programs until 1976, when this became the responsibility of the president. These chairmen, in both cases, appointed their own committees.]

VDT: What were the issues when you were president? I must pass on a compliment about you from your secretary-treasurer, Jim Brackett, whom I interviewed a few weeks ago. He said you were a very easily reachable and concerned PAA president; you were very cooperative. But what did you do if you didn't do the program? What was the president concerned with?

HAWLEY: He chaired the Board meetings. And we had two or three meetings over the year of an executive committee--president, vice-presidents, secretary, and one or two other people. Those were

essentially the president's job. He set the agenda, of course, for the business meeting and chaired the business meeting [for all members at the annual meeting].

VDT: Andy Lunde asked me to remind you that during your time there was a flap over a change in the constitution. What was that?

HAWLEY: Did he tell you the name of the man who chaired that committee?

VDT: Forrest Linder chaired the Committee on Organizational Management, but that was in the late 1960s [1966-67], before your time.

HAWLEY: I don't know of any constitutional change that was under discussion after that, or at the time I was president. I remember there was quite a flap over Forrest Linder's proposed reorganization. He was very dismayed that they voted it down.

VDT: Ansley Coale came in with many objections and he wasn't going to carry out the committee's recommendations when he became president [in 1967-68].

HAWLEY: Forrest wanted to make it a very selective organization. But the membership--maybe Ansley Coale was responsible for this attitude in the membership--wanted to keep the organization open.

VDT: Paul Glick wrote this up as a "Vignette of PAA History" in the newsletter [PAA Affairs, Summer 1982]. It happened when he was president, in 1966-67. The committee recommended that there should be two categories of members, the "pure" demographers and the less pure people in other population fields. There were other things taken up at that time, which Ansley Coale objected very strenuously to.

Also, this was the time that Donald Bogue was expanding the PAA membership enormously through his promotion of Demography, having such thick issues of Demography. You remember that?

HAWLEY: Yes, the Association is indebted to him for Demography.

VDT: Indeed, he was editor for the first five years [1964-68].

HAWLEY: And where he got the money, I don't know. He didn't get it from the Population Association.

VDT: Well, he got some subsidy. Then the final issue [Vol. 5, No. 2, 1968], the thick issue with the Indian family planning upside-down red triangle on the cover, his Center paid for, in the end. [Demography was launched through the Ford Foundation support of Bogue's Community and Family Study Center, followed by a \$30,000, three-year grant from the National Science Foundation. See Bogue, Lunde, and Glick interviews.]

HAWLEY: One of the issues when I was president, and I think it was also an issue when Nathan Keyfitz was president before me [1970-71], was women who wanted the Association to take a position on women's rights in the profession. Some of us felt it wasn't the responsibility of a professional association to become a political pressure group. In any case, there was only one department of demography at that time--at Berkeley.

VDT: The women were pressing for women's rights within university departments?

HAWLEY: Primarily. In the profession, but the profession was still largely within university departments. I don't know whether women have free access within the Census Bureau or not; probably not as much as they would like. But this was a concern.

There were other issues that came from the floor from members, recommendations on policies in developing countries, which of course the Association could not support.

VDT: Can you give me an example?

HAWLEY: There was a case in Argentina, where a demographer had run afoul of the government and some members wanted us to send a memorandum to the Argentine government concerning this.

VDT: Had that demographer been jailed or something?

HAWLEY: Probably. And there were other issues of that kind that had come up in totalitarian countries.

We did, however, at the end of my term [1971-72] send out a one-page questionnaire, printed at the back of PAA Affairs, asking about the problems of women in the profession: the rank they held, salaries, demographic data, and then a series of questions on professional problems they faced. That was analyzed and reported to the next meeting. I was not then present; I never heard what that report had to say about all that. [A Committee on Discrimination Against Women and Minority Groups in the Profession, appointed after passage of a Women's Caucus resolution at the 1971 meeting, designed a questionnaire to be distributed to all PAA members "to ascertain the number of women and minorities in the profession and their professional status." This survey was conducted in May 1973 and some results were published in PAA Affairs in 1974 and 1975. See Harriet Presser, vignette on the history of PAA's Women's Caucus, PAA Affairs, Winter 1981.]

VDT: Of course, the Women's Caucus was formed, and there have been membership surveys and the women's angle has been analyzed.

HAWLEY: There was a Women's Caucus during my term. That may have been the first one. [PAA's continuing Women's Caucus was formed at the Atlanta meeting in 1970.]

VDT: The Women's Caucus was involved in the famous Toronto meeting in 1972, where you gave your presidential address, when women were excluded from the bar in the hotel. That's my hometown and the first meeting I attended. I was embarrassed that PAA was meeting in that hotel [King Edward], because it was seedy and rundown. It's not any longer; it's been fixed up.

Have you attended most PAA meetings over the years?

HAWLEY: Yes, up until recent years. Recently, I haven't attended that many. I took the position that I wouldn't attend meetings unless I had something to do there.

VDT: Now they've got you doing something in New Orleans [April 21-23, 1988, meeting]. You'll preside over that luncheon roundtable discussion on "The Ecological Perspective in Population Study." You're certainly known as Mr. Ecology of population. Was anyone else in that field--population ecology?

HAWLEY: Oh, a lot of my students: Krishnan Namboodiri, now at Ohio State; Jack Kasarda, who is

chairman of the department of sociology here [Chapel Hill]; Jack Kantner, whose interests have turned more toward fertility; Don Bogue, of course, who has been in and out of this and he published some papers recently on ecology and population in the city of Chicago. A fair number.

I guess I'm more distinguished for my preoccupation with theoretical questions. Most of these others were more concerned with empirical problems. I've done some of that, but it seemed to me that the theoretical questions were unsolved and needed a lot of attention.

VDT: The over-arching theory?

HAWLEY: Yes. Well, some not so grand.

VDT: I've heard in some of these interviews that some think, for instance, that demographers nowadays have become too technical and microcomputer-oriented, to the detriment of over-arching theories.

HAWLEY: I'm not too sure too technical. I do think that some of the problems are pursued to the micro level excessively. I think now is the time for someone to do a synthetic job on fertility--a review of the field and draw together the state of knowledge, a synthesis.

VDT: You don't think that's been done?

HAWLEY: Ron Freedman did it for a United Nations committee some while ago, but that's almost 25 years ago. It's a little booklet; I can't give you the title. It was on the status of fertility research, sort of a state-of-knowledge summation, very good, very compact ["The Sociology of Human Fertility: A Trend Report and Bibliography," Current Sociology, Vol. X/XI, No. 2, 1961-62, prepared for UNESCO]. I don't know if anybody has done that recently, do you?

VDT: I've just read Forty Years of Research in Human Fertility [Milbank Memorial Fund, 1971], which was the proceedings of a two-day conference in 1971 in honor of Clyde Kiser when he retired from the Milbank Memorial Fund. But, no, I don't think anyone has summed it up recently. You'd like to see something of that sort?

HAWLEY: I think it's needed.

VDT: Ron Freedman did do that long article in Studies in Family Planning recently ["The Contribution of Social Science Research to Population Policy and Family Planning Program Effectiveness," Studies in Family Planning, March/April 1987]. It was mainly the work in developing countries, not exactly the state of fertility research, which he could do.

HAWLEY: He'd be the one to do it. So would Ansley Coale.

VDT: Ansley might be a little more technical. I'll suggest it to them--or you suggest it to them at New Orleans. They're both on the program; they'll be there.

What do you see as the outlook for demography as a discipline in the United States? Are demographers more needed than ever?

HAWLEY: Oh, yes. Well, I think their value is widely recognized. As a consequence, there are very few departments in the United States that do not now have courses in demography. And I think demographers are being consulted, obviously in governmental offices, not just in the Census Bureau

but in the Department of Agriculture and numerous other places.

Last week some lawyers called me from Washington, who were trying a case on deregulation of the trucking industry, and they wanted demographic advice on what constituted a commercial zone. To put it differently, the Interstate Commerce Commission was saying that places of 100,000 or more should have deregulation extended to 50-mile radiuses, so the question was: Does a commercial zone reach out to a 50-mile radius from the city center? Then it's 100 miles across. They were contesting this and they wanted to know if there was any demographic information that would help them resolve that. That's a case in point.

Businesses are using demography, state governments are hiring demographers. One of my students is the demographer for the state of North Carolina. So I don't think there's any question about the security of the demographic profession in the public view. And demography is a major concern now in a great many developing countries--India, China, Japan. Some of these countries are producing first-rate people.

VDT: Who are being trained within the countries themselves?

HAWLEY: Yes. They used to depend on us; now they're doing it themselves. And very well. I helped institute a program in the University of Kerala; that must have been 1962, 61.

VDT: Just before you went to Thailand. You actually went out and helped on the spot?

HAWLEY: Yes, I went out there and designed a curriculum in consultation with people in the statistics department. Then they took two of our students from Michigan to staff that program. One of them is now at Ohio State. He couldn't stand the seniority restrictions and left. He's Indian; he's a Brahmin as a matter of fact. He went there on that faculty and became dissatisfied and came back to this department, North Carolina, and recently moved on to Ohio State. That was Namboodiri.

VDT: How did you find time to have these overseas postings--India, Malaysia, Caribbean--while teaching?

HAWLEY: I took occasional leaves of absence. Sometimes universities are glad to have people leaving.

VDT: To give some of your colleagues a chance to teach courses?

HAWLEY: Yes, and to give universities some budget relief. At Michigan they used to say if all our faculty came back in any one year, we'd be in desperate financial state.

VDT: Who, for instance, funded you when you were in India, setting up the Kerala program?

HAWLEY: That was the Ford Foundation. It probably came through our population center.

VDT: Do you think those ties with developing countries will continue--with American universities, in demography?

HAWLEY: I think so. The big unexplored area is Africa south of the Sahara. If that ever stirs, it will be a great opportunity for consultation.

VDT: Well, of course, there have been Americans who have gone out to Kenya and Nigeria. Frank

and Susan Mott were there, and others.

HAWLEY: Andy Lunde went out to Nigeria once. He was there only about a month; that was training in the census, vital statistics, and record-keeping. Nevertheless, there's an awful lot of territory there that needs some assistance. And elsewhere--Latin America and parts of Asia still are fertile ground for some aid.

VDT: You enjoyed those overseas assignments?

HAWLEY: Very much. Particularly the Thai one. I was dissatisfied with the Malaysian one. It seemed to me that if a country really wants a person, you can go there and do a job. But if the country has been sold a bill of goods by someone, then the person that goes out has trouble. In Malaysia, I was sent out to organize a demographic unit. I was confident shortly after I got there that they had been persuaded to do this, although they didn't really believe in it.

VDT: Was that the result of Bucharest, when the World Plan of Action said there should be such units? That was 1974.

HAWLEY: This was 1973. When I got there, they hadn't made any preparations. It was three weeks before I had a desk to sit down to. I found the people I wanted to talk to were elusive and hard to find. I had to drag something out to make the thing worthwhile, and I was very discouraged. Although I had a fine experience in the census office.

VDT: They didn't think it was their job to analyze the census data but they were willing to let you do it?

HAWLEY: Oh yes, we did a lot of things with their data that wouldn't have been done otherwise. They had a computer establishment. You couldn't do more than straight runs on it; couldn't use it. I think they've since improved that situation.

VDT: Of course, Malaysia has always been a bit ambivalent about population policy. It's the one country that has backtracked and decided that it now wants to expand its population--at least the prime minister says that--wants to aim for a much larger population, after the family planning program was apparently bringing down fertility.

HAWLEY: Well, there are two things. One is the role of the sultan. Of the 11 states, about seven or eight are still pretty well controlled by the sultans, not officially but symbolically, and their wishes are respected. Sultans are against family planning. So you have a family planning agency in the government, but it's very weak in the rural areas. It's better in the cities, but weak in the rural areas because of the attitude of the sultans. Four of the states, the British kicked the sultans out. That's one of the problems.

Another is the friction between Malays and Chinese, and that is almost palpable everywhere in everything. The Malays are very envious of the Chinese; they're educated and control the economy. The British kept the Malays down on the farm and now they're trying to get off the farm. They have very meager qualifications. They have such legislation as a third of every employment force should be Malay, but you can't find qualified workers. Employers can't find them; even the government can't find them. The government, which is Malay-dominated, won't consult the Chinese, who occupy most of the faculty positions in the universities. They created a Malay university, all the instruction in Malay, but all the books and articles are in English or French and to translate all that material is

virtually impossible. The Chinese are walking around in fear. There were major riots in 1967 in which a lot of them were killed. But still, they are the intelligentsia. The separation of Singapore from Malaysia was the result of that.

VDT: What are your plans for the future? In 1978 you were president of the American Sociological Association. You must still be involved with that.

HAWLEY: No, not very. I've gone to a few of the meetings.

VDT: Do you have any special plans for now? You've stayed on in Chapel Hill.

HAWLEY: I retired in 1976 and for about ten years after that, I spent half-time in my office in the university. I had a number of graduate students who hadn't finished and I was on a number of committees. When that finally ended about a year ago, I had very little reason to visit the office. I don't have much left to say. I write little papers now and then and once in a while they get published.

VDT: I hope you'll go on writing those papers, and prodding others to write the papers they should, such as you mentioned with Ron Freedman; he should write a history of fertility research, up to date.

HAWLEY: Not so much a history of research, but a statement of the state of knowledge, what's left to be done. For example, are there any other important unexplored areas in this field or do we continue to look at the infinitely small area? These are the kinds of questions that I think ought to be addressed.

VDT: Do you feel there's a need to do that in human ecology?

HAWLEY: Oh, yes.

VDT: Could you do it?

HAWLEY: Well, I've just recently published a book which is called Human Ecology: A Theoretical Essay.

VDT: I didn't know that.

HAWLEY: In 1986. In the book, I tried to organize the theory in the field and to bring to bear on it whatever empirical material is available. That's the kind of thing that ought to be done in fertility research.

VDT: Good. I think it's splendid that you did that.

HAWLEY: It's something that came out of the years of teaching.

VDT: You've obviously enjoyed your career.

HAWLEY: Very much. I can't imagine a better one.

VDT: That's a wonderful note to end on. Thank you very much.

HAWLEY: I enjoyed talking with you.

Amos Hawley: A Pioneer in Human Ecology

by John D. Kasarda, University of North Carolina at Chapel Hill

Amos Henry Hawley, 69th President of the American Sociological Association, died in Chapel Hill, NC, on August 31, 2009, at the age of 98. A seminal theorist, Amos helped revitalize macrosociology in the 1950s and 60s via his reformulation, extension, and codification of human ecological models. He left an indelible imprint on our discipline by his writings and those of many of his students. Stately, yet always modest, his brilliance was intellectually catalytic for others as he provided conceptual clarity to complex system structures and processes at the community and societal levels.

Born in 1910, Amos came of age during the Great Depression where he dropped out of the University of Cincinnati for a life as a hobo. He rode boxcars to the West and panned for gold in Oregon. He even stowed away on a Japanese freighter heading to Asia before being discovered and sent back.

After his stint riding the rails, Amos returned to the University of Cincinnati where Professor James Quinn introduced him to sociology and human ecology. Amos also encountered Roderick McKenzie, a renowned visiting professor from the University of Michigan, who impressed him with his theories of urban hierarchies and metropolitan dominance. McKenzie convinced Amos to follow him back to Ann Arbor, where he became McKenzie's protégé. When an untimely ill-



Amos Hawley
1910-2009

ness and early death took McKenzie from Michigan in 1940, his protégé succeeded him. There, Amos rose through the ranks from instructor to professor and served as chair of the department from 1951 to 1962.

Michigan's Sociology Department was in its heyday during Amos' decade as chair, leading the way with its Survey Research Center, Center for Group Dynamics, Population Center, and Detroit Area Study. It also had many distinguished faculty ranging from social psychologists to demographers, a number of whom had strong personalities and radically different takes on what should be central to the discipline. Gerhard Lenski (Amos' close colleague at Michigan and UNC) noted that all the ingredients for a department blow-up were in place. Yet, Amos effectively served as leader and social glue holding everything together as Michigan's Department of Sociology prospered.

In 1966, Amos departed for Chapel Hill becoming Kenan Professor of Sociology at UNC where he remained a highly active scholar and graduate student mentor until his retirement in 1976. Soon afterwards, he took to writing fictional short stories, many of them incorporating his keen observations over the years of academic lifestyles. To the surprise of a number of us who always thought of Amos as being steadfast and restrained, some of these short stories have elements of intrigue and even risqué behavior.

Theoretical Innovation

It was his more than 100 scholarly works, though, for which Amos will be most remembered. His academic career is best defined by an early book, *Human Ecology: A Theory of Community Structure* (1950). That book remains the most comprehensive statement of the ecological approach to social organization. In many ways, it was a major departure from previous work in sociological human ecology. Amos was able to distill prior research and field observations of human ecologists into a codified theatrical framework that explained characteristics of social organization as the product of a population adapting to its environment.

By strengthening human ecology's intellectual ties to the field of ecology, Amos led human ecology away from reliance on biology and the early Chicago-School urban sociology. Despite drawing on the historical work of George C. Homans, he also moved human ecology firmly into the realm of macrosociology. Amos believed that the structure of organizations—be they communities, societies or formal organizations—had overwhelming influence on individual behavior and superseded individual influence, with real power in the organized system. It was, therefore, his understanding of system structure and its macro drivers that occupied the majority of Amos' scholarly efforts.

His ASA presidential address, "Cumulative Change in Theory and History" (*American Sociological Review*, December 1978), is a good illustration. Amos argued that although individual

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societies rise and fall over the long wave, human society tends to progress through cumulative advances and transferability of technology and economic organization. The result is societal growth measured in terms of system complexity, energy and products consumed, territory covered, and population supported.

A precursor of his conceptualization of societal growth was his models of ecological (system) expansion. Extending the works of Charles Horton Cooley and Roderick McKenzie, he explicated (and quantified) how socio-spatial system expansion occurs through advances in transportation and communication technology that integrate dispersed populations and their economic organizations over ever-widening territories. An outcome of the expansion process is the formation of hierarchies of places (at the local, national, and global levels) characterized by competitive-cooperation.

Interestingly, Amos was among the few American scholars in the 1950s and 1960s who dispassionately engaged Marx. After considering the predictions of Malthus and those of Marx about the relationship of the size of a population to available resources, he came down firmly on the side of Marx, finding corroboration for the principle that access to resources is limited in the first instance by social organization. While certainly not a Marxist scholar, he felt an affinity for some of Marx's theorizing and revisited the issue several times in his career, most recently in "Human Ecological and Marxian Theories" (*American Journal of Sociology*, 1984).

Various Contributions

Amos' calm manner belied his sharp, original mind, which frequently inspired curiosity and originality among many of


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his students, from demographer Donald Bogue to organizational ecologists Michael Hannan and John Freeman. Hannan and Freeman's classic article "The Population Ecology of Organizations" (*American Journal of Sociology*, 1977) began as a paper in Amos' UNC graduate seminar. Howard Aldrich, current chair of UNC's Department of Sociology, contends that this article changed the field of organization studies forever.

Amos contributed as much to practice as to theory, and he was as accomplished in the field as in the classroom. He served on the advisory committee for the 1960 United States census and on numerous National Academy of Sciences committees and boards (1960-1978). Amos also was a demographic adviser for the government of Malaysia (1973-74), directed the census of Aruba in 1960, and was an adviser to the prime minister's office in Thailand (1964-65). He conducted field studies of populations and urban land use in Japan,

the Philippines, and elsewhere.

For his many contributions to population studies, Amos was elected president of the Population Association of America (1971-72). In 1990, he received the Robert and Helen Lynd Award from the American Sociological Association for his research and scholarship on community and urban sociology. Also that year, Cornell University honored Amos with an award for outstanding achievements and contributions to sociological human ecology. At UNC, The Amos Hawley Distinguished Professorship is named in his honor.

Amos' final request characterized his modest and generous persona. He asked that no funeral or memorial service be held and that any memorial contributions be made to a fund for the benefit of graduate students in the Department of Sociology at UNC. This fund has now been established and designated by UNC as The Amos Hawley Memorial Fund. 

A Tribute to Amos Hawley: Mentor, Colleague, and Friend

It is an honor to be among the many whose professional careers were shaped, mentored, and encouraged by Amos Hawley. The Chicago-Michigan School of Human Ecology was born from Social Darwinism in Chicago, where it was deemed to be a result of a set of “sub-social” processes. It was adopted as a central subfield and taken to Michigan by Roderick D. McKenzie, and made eminently social by McKenzie’s prize student Amos Hawley. Hawley insisted that human beings must adapt, often by changing both their man-made and physical habitats everywhere and do so collectively, not individually, by organizing themselves as communities. That social organization and culture are adaptive responses to environmental resources and limitations, rather than uncaused causes, stands as one of the grand insights of pre-WWII sociology. Amos was my thesis chairman and I participated in all of his available courses and seminars. In my opinion, his writings rank with those of Weber and Durkheim in explaining social organization and excel them in explaining social change. For many decades Human Ecology thrived jointly in Michigan and Chicago under Hawley and Dudley Duncan and their students (today in many other universities under second- or higher-generation human ecologists). His viewpoint has spread worldwide and codified in many diverse subfields, in which groups are studied as they react to particular stimuli of their milieu: From the methodology of measuring “contextual effects” in schools to estimating the “population carrying capacity” of nations. Amos will live forever as a founding father of environmental effects. His significance can only become more appreciated and revered. Amos and his wonderful wife Gretchen were firm lifelong friends of my family. His death is a deep personal, as well as professional, loss.

Donald J. Bogue, University of Chicago

The scholarship of Amos Hawley has secured him a permanent place among the intellectual giants of sociology—indeed of social science writ large. This would be true if his only contribution had been the publication of his classic *Human Ecology: A Theory of Community Structure* (1950). Of course, Amos produced many insightful

and influential publications—and here we must be mindful of his work on developing societies as well as his superlative theoretical treatises. The latter took sociology back to its roots in the Durkheimian affirmation that human organizations are “more than the sum of their parts”—a notion that lies at the core of our discipline. In addition, a crucial part of Amos Hawley’s legacy (too often neglected) is that he was a superlative teacher. During the late 1960s and early 1970s, while attending graduate school at the University of North Carolina-Chapel Hill, I had the good fortune to be able to enroll in several of his seminars. I was impressed by many aspects of his mentorship, but I will mention only a few. First, the logic and power of his ideas were striking. Then, there was his relationship with students. At times, students (including myself) would ask irrelevant, or even meaningless, questions. On such occasions, Amos would unfailingly respond by imparting valuable insights, even if he had to rephrase the question to make it meaningful for the benefit of all. Part of the preface to a collection of papers written in Amos’ honor presented at a symposium (organized by Dudley Poston and Mike Micklin and published by Plenum Press [1998]) says it all: “Amos H. Hawley, valued colleague, mentor, and friend.”

W. Parker Frisbie, University of Texas-Austin

I will always picture Amos Hawley standing erect, tall and muscular, with a full head of well-groomed, thick white hair, a smile on his face and warmth in his voice. His physical appearance matched his inner characteristics—strong, dignified, principled, powerfully intelligent, caring, and gentle.

Amos was a giant of social scientists, who broadened our understanding of macro processes in population, organization, and development, and he influenced studies in other, seemingly distant areas such as school planning and mental health law. Although not known by many, he was also an astute observer of micro-relations, which is evident in the novels and short stories he wrote after retirement from the academy.

Amos expected work of the highest quality from all his students and respected them and promoted them for producing it, regardless of their religion, ethnicity, race or gender. Although reserved and

not given to emotional expression, he was sensitive to social slights based on these statuses and would unobtrusively intervene to rectify the slights he observed. He was a sterling model of a professional who quietly advanced the academic careers of numerous women at a time when many hurdles were thrown in their path.

Although he did not stand as erect and tall in his last year, Amos still had a full head of well-groomed, thick white hair and greeted his ex-students with a smile on his face and warmth in his voice. I was fortunate to be one of those students.

Virginia Aldigé Hiday, North Carolina State University

In the last decade of his almost centennial-long life, Amos Hawley began writing short stories. A volume of his collected stories was self-published every few years, and Amos circulated them to old friends, who inquired about what he was up to. Allegedly fiction, his stories focused on everyday life in an anonymous university with character sketches that some colleagues thought were too close to the mark. Friends and admirers of Amos (I was both) who read his short stories were reassured that he had not lost any of his powers of observation or wry sense of humor.

Amos was a major influence on the evolution of 20th century sociological theory, and especially of the school of macro-sociology known as human ecology. Under the influence of Robert Park, and the Chicago School more generally, early 20th century sociology adopted human ecology as theory that offered a distinctive interpretation of the apparent chaotic and disorderly structure of cities. With the premature death of his mentor, Roderick McKenzie in 1940, Amos assumed the task of reformulating human ecology theory beyond analogies and social geography. Almost single handily, with a 1944 *Social Forces* article and his 1950 magnum opus *Human Ecology*, he recast human ecology as the study of community structure. Although human ecology is no longer at the center of the sociological enterprise, Hawley's theoretical statements as well as his empirical contributions are certain to be "rediscovered" when intellectual directions shift to the search for explanations of social change.

In 1973, Hawley had accepted an 18-month position as a Ford Foundation

senior demographic advisor to Malaysia and he was looking for a junior member who could assist in analyses of the 1970 Malaysian census. I was then a fledgling assistant professor, and my colleagues thought that it was



Amos Hawley

foolhardy (crazy was the precise term) to consider accepting a temporary overseas assignment at this stage of my career. The opportunities to return to Malaysia and to work with Amos Hawley were, however, too appealing. The formal objectives of our project were not realized, but there were countless informal rewards, including the beginnings of a life-long friendship with Amos and Gretchen Hawley. In addition to a thick file of a 30-year correspondence with Amos, I have many memories of visits to the Hawley home in Chapel Hill and later to their retirement home. Amos was a creative and daring scholar who left a rich corpus of work for our discipline, and he was a generous and warm-hearted man whose friends were better for having known him.

Charles Hirschman, University of Washington

Looking back over the years, I find it hard to think of anyone who helped me more in the early critical years than Amos Hawley. We first met in 1949 at the last of ASA's end-of-year meetings when he was chair of the Michigan department and I was looking for my first academic job. I learned later that his support had been crucial when the department had to choose among the candidates.

Later, after I arrived in Ann Arbor, Amos saw to it that I, without prior teaching experience, never had to teach more than one new course in any semester and even arranged for the department to add a new course in the sociology of religion to help me get started. Still later, he arranged for me to get a reduced teaching load with funds from a grant he had at the time. This led in time to the publication of my book *Power and Privilege*.

I would do Amos an injustice, however, if I gave the impression that his contribution to my development was only in an administrative capacity. Whenever I encountered his students in those early

years, I found that they had many stimulating ideas that they had gotten from him, ideas that opened up new perspectives for me. Above all, I came to appreciate the kind of unambiguously operationalizable and testable theory Hawley's work provided—something that was badly lacking in the then-dominant Parsonsian theory.

I can't resist drawing attention to one aspect of his highly productive and fruitful life that many may not know about and I certainly can't claim to have anticipated. After he retired, he began writing short stories which he self published and shared with some of his friends. To my amazement, the best of them were every bit as good as the best of O'Henry's! Like O'Henry's, they had a surprising and unexpected ending. Sadly, however, this second career came to an end when his eyesight failed him several years ago.

Gerhard Lenski, Hansville, WA

Amos Hawley was neither my teacher nor my colleague. But I view his death as a tremendous loss, both personally and to the profession.

Hawley played a key role in the first two decades of my professional career. I first met him in 1968 when I interviewed for a faculty position at North Carolina. I was offered a job there, but instead took one at

the University of Texas (UT). A few years later, one of his UNC students, Parker Frisbie, joined the UT faculty and we began collaborating. Virtually all our work drew on Hawley's human ecological perspective, and much of our published work benefited from his reading and critique. Whenever we met, sometimes at professional meetings, he was always interested in my research and what I was studying. Seldom do star professors at major universities take such an interest in the work of young faculty from other places.

With regard to our discipline, Hawley was truly a giant. His *Human Ecology* defined the field of sociological human ecology and remains its definitive exposition. In *Human Ecology* Hawley developed and articulated an encompassing theory of one of the key problems faced by the human species, namely, the growth and survival of social systems. The publication is a truly classic contribution to the literature of sociology and demography and commands and requires our attention to this day. The contribution of *Human Ecology* parallels in important ways the contributions of Emile Durkheim, Max Weber, Karl Marx, Robert Merton, and others all of whom developed theories about societal problems and issues that continue to be relevant decades after their initial publication. Sociologists

and demographers recognized Hawley's stellar contributions by electing him to the Presidency of both the American Sociological Association and the Population Association of America. He is only one of seven persons ever to be elected president of both organizations. It will be a long time before sociology and demography will have a scholar, mentor, and exceptional human being the like of Amos Hawley.

Dudley L. Poston, Jr., Texas A&M University

Amos Hawley was a gentleman. Indeed, a modest gentleman despite his brilliant scholarly accomplishments. His modesty was apparent to all who knew him. Our tributes here, while appropriate and fitting for a former ASA president, would probably have been anathema to Amos. Rather than my writing these words, he would have preferred that I spend the time doing research, talking with colleagues, keeping up with world events or simply relaxing with family.

Amos' gentlemanly character was evident upon my arriving in Chapel Hill as an assistant professor. I had the supreme good fortune of being assigned an office next to Amos (perhaps because the then department chair was aware how much I would benefit from Amos' mentoring).

He was gracious as well as generous with his time and resources. When I encounter Amos' former students (undergraduate and graduate), they invariably remark about his gentle but very effective style of letting them know when they were not seeing things clearly. He would say "Have you considered ...?" or he would give them a book or article to read that would inevitably lead them to improve their understanding and their research.

The last time I saw Amos, he was approaching the century mark. His gait had slowed, his sight had diminished, and his hearing had become less acute. But he was his usual analytical self, inquiring about my and his other visitors' research and well-being. And yes, as we moved to go to the garden, he maneuvered so that he could hold the door open for others.

Finally, as testimony to his scholarly achievements, just before writing these words, I was reviewing a paper on climate and migration, for which I will serve as a discussant at an international population conference. The authors use Amos' 1950 classic, *Human Ecology*, to frame their discussion of factors affecting migration. It is a book, a theory, a perspective that is as fresh today as it was almost 60 years ago.

Ronald R. Rindfuss, University of North Carolina-Chapel Hill

POPULATION DENSITY AND THE CITY*

Amos H. Hawley

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27514

It is possible that in no previous age has so large a proportion of the citizenry been so directly and so vocally concerned about environmental deterioration and its threat to the quality of life. If the fervor and the insistence with which the matter is discussed is a measure of its importance, then it surely is one of the most significant issues of our time. The clamor rises to an emotional peak when its attention fastens upon the city. There, it would appear, our reckless disregard of standards of efficiency, resource conservation, health and aesthetics reaches its fullest expression. Cities, we are told, are cancerous growths. They occupy space where wildlife once lived, they overlay arable land with ugly structures that soon will be reduced to blight, they pollute the atmosphere, the soils and the streams, they foster mean, antisocial and materialistic behaviors, and they harbor the poor, the lawless and the underprivileged. The indictment is sweeping. It is strange, indeed, that so many people live in cities.

Critics of urban life have been among the more vociferous members of American society from the beginning. The anti-urban tradition, which started with Thomas Jefferson, was carried through the nineteenth century by men of letters—the Adamses, Thoreau, Emerson, Melville and many others.¹ In the late nineteenth century the attack was pressed by city planners, who sought an urban antidote in constructing the city beautiful.

As planners grew more preoccupied with the technical problems of their profession the license for urban criticism was relinquished to environmentalists. At the outset the complaints were inspired by fears of cultural dilution caused by swarms of foreign-born residents and the divorce of life from the soil. It became, in the hands of planners, a lament over the neglect of aesthetic values in design to which institutional and moral defects were attributed. Most recently the urban problem has come to be viewed as an aspect of the larger environmental problem. It is said to be caused by population growth and the continuing concentration of population in urban areas.

The censure of cities has had some basis in fact. They have always been unstable, unruly and somewhat unsightly places. That is because cities have served as the vortexes of change. The avenues of traffic and trade that have converged upon cities to supply their nourishment have also exposed them to innovations and influences from near and far. The crisis of the city—and crises are endemic in cities—is the crisis of change. Unfortunately, the problems of the moment tend to obscure the achievements of the preceding moment and the promise of the next moment. Nowhere else than in the city has it been possible to have access to so much information and to such a diversity of opportunity. If they have lacked beauty and symmetry, cities have at least been free of the stultifying parochialisms of the insular village. No amount of romanticism can raise the village to the level of creativity and liberal thought enjoyed in the

* Presented as a Presidential address to the Population Association of America at its annual meeting in Toronto, Canada, April, 1972.

city. In fact, if the truth could be fully known, urban life and the commerce on which it is built would probably prove to be among the most powerful factors in the development of ethical systems and the growth of civil institutions. Interdependence cannot long last without mutual understanding and trust. The standardization of moral principles and criteria of justice is as necessary as the standardization of coinage, weights and measures, and language. But this is a topic for another discussion.

We are told that many of the difficulties in which cities find themselves today can be traced to the crowding of people into the limited spaces available, that is, to density.² This is a reversion to an earlier theme. Not since the empirical work of Raymond Pearl and the speculations of Louis Wirth have we heard much about density, not, that is, until the past decade. Now it is a popular interest once again. This can hardly be explained by any new definitive light having been cast by social science research on the social significance of density, for none has been published. Whatever might have provoked the renewal of interest, it appears to have been nourished from several sources, among them criticisms of planners' neglect of old, interior sections of cities voiced by Jane Jacobs,³ the publicity given to a few bizarre instances of noninvolvement on the part of residents of New York City, and the discovery of John Calhoun's experimental studies on the effects of crowding on the behavior of Norwegian rats.⁴

The attention given to Calhoun's work in current thinking about density is itself a curious phenomenon. There is hardly a book of readings on either population or urban problems published in the past few years that has not included his paper on "Population Density and Social Pathology".⁵ This from people who have so studiously held their work aloof from any comparison with

findings of biological researches is rather ironic. But the acknowledgment of Calhoun seldom extends beyond juxtaposition. No one has gone so far as to indicate what analogy is to be drawn between the rat in an experimental setting and the human being on a city street. If reputable biologists such as René Dubos⁶ and Dennis Chitty⁷ can discover no useful application of the experimental findings to the human situation, the social scientist may be excused for his inability to appreciate Calhoun's contribution.

This is not to say that there are no instructive parallels to be observed as between lower and higher forms of animal life. A comparison is on much sounder ground, it seems to me, when it deals with aggregates rather than individuals. For example, in so far as density generates a competitive situation it may indirectly exert a distributive effect. Competition for territory among members of animal species grows more severe, with consequent higher mortality, as density increases. This simple relationship, as the bioecologist John Christian has pointed out, assumes for both lower forms of animal life and for human beings that (a) there is a given mode of social organization operative, and (b) that the organization remains constant through a period of interaction.⁸

But discussions of density in human populations are often confused and sometimes frustrated by the various meanings attributed to the term. On the one hand, the word is used to denote the resident population per unit of land space. On the other hand, density is frequently employed to mean the number of interactions or messages exchanged per unit of time. These two meanings may be identified as physical and social density, respectively.⁹ A third meaning which overlaps the first two to some extent applies to temporary aggregates, such as the number of vehicles at an in-

tersection at a given time, the size of a crowd on a city sidewalk at a particular hour, or the telephone calls handled by an exchange at peak load periods. Congestion is a word used occasionally to refer to transitory aggregations, though the term has acquired no technical standing. Needless to say, the hypotheses one advances about the implications of relative numbers will be affected by the conception of crowding he has in mind.

The separation of physical and social density is under certain circumstances a matter of abstraction, for the distance between people is an important factor in their ability to exchange communications. Increases in the number of people per unit of territory raise the level of interpersonal and interinstitutional accessibility and, at the same time, the probability of interaction. Thus, in any given state of transportation and communication technology, physical and social density are positively correlated, up to a point at least.

The dependence of social upon physical density is a fact of great historic importance. It lies at the roots of the nucleation of human settlement, whether as village, town or city. Only by crowding together, *multum in parvo*, have people been able to join their special abilities in close working relationships. Increases in the productivity of the soil freed more people for specialization in non-extractive industries and fostered enlarging concentrations within which the accumulating specialties could be interrelated. The industrial city in the nineteenth century grew, in its early stages, as much by the concentration of previously scattered rural industries as by the emergence of new industries. Each addition of another industry exerted a multiplier effect, drawing ancillary industries and services to the site, thereby developing a complement of producing activities and external economies. Compact agglomerations were imperative, as economic historians have shown,¹⁰ since

intramural transportation and communication facilities remained in a primitive state until well into the nineteenth century. Density is thus an economizing circumstance; it is a way of minimizing the time and cost of exchanges of goods and information.

High densities also permit economies in the physical and service structures of cities. Where the housing space per unit of land is large the rental cost per dwelling may be relatively low. Similarly unit costs of utility lines, street surfacing, sidewalks, police and fire protection, and delivery and other services can be lower as density is increased. Yet high intensity of use may keep maintenance costs at a high level, for breakdowns can spread considerable chaos. But maintenance costs may not pose a problem until rents begin to fall, as a result, for example, of obsolescence. If then there is a tapering off of maintenance service, it may begin a downward spiral in the use value of buildings.

There is a limit to the gains in communication efficiency that can be realized from increases in physical density. The frictions and collisions that accumulate in the mounting volume of traffic, the consequent delays and missed appointments, and the losses of information due to breakdowns of overloaded circuits raise the costs of communication to prohibitively high levels. The system, other things having remained constant, is unable to make the necessary compensatory adjustments.¹¹ As that point is approached the growth of an integrated system tends to come to rest at an equilibrium state. Accumulation of population beyond the equilibrium point leads to a fragmentation of an aggregate and the formation of a number of systems at the equilibrium scale.

This is the condition in which many of the cities of developing areas find themselves today. Their physical densities have risen to such high levels that internal integration cannot be supported

by the existing transportation and communication facilities. Consequently the aggregates resolve themselves into numerous cellular compartments between which there are comparatively few exchanges. Since the urban systems are unable to attend adequately to the needs of the people the social costs of great densities are high.¹² Still, although in many cases the high densities are premature, there is no other way to assemble a labor force or a market where transportation and communication are either primitive or beyond the financial reach of most of the people. The massed population could prove to be a resource of great value in the further development of industrialization. In this respect the early history of western industrial cities is being repeated.

But if the facilities for local movements and exchanges are improved even though slightly, as began to occur around mid-nineteenth century in industrial cities, an integrated system can grow to larger sizes. The radius over which centralized activities could extend their influences was lengthened and the scale of organization was increased correspondingly. Intensive users of space increased in number at the center and crowded extensive space users toward outer zones. In general, information handling industries supplanted goods handling industries. These changes accelerated perceptibly with each further improvement in short-distance movement.

The advance of centralization and of the scope of its domain multiplied the volume of interactions by some exponential power. Every further institutional specialization added a new set of permutations to the flows of information. Communications specialists—messengers, telephone operators, record keepers, despatchers, coordinators, radio broadcasters, managers, administrators and technical consultants—increased to the point of constituting a major indus-

try. In short, social density became increasingly independent of physical density; the former began to increase much more rapidly than the latter. It would be surprising to discover that the rapid growth of social density did not require progressively larger expenditures for the installation and maintenance of communication networks.¹³ A fair assumption is that the greater expenditures paid dividends in higher productivity. Were that not true it would be difficult to find an economic explanation for the growth of a system. In any case, if there are higher costs, they should be assigned to organizational maintenance, not to physical density.

Although the deconcentration of institutional activities was accelerating noticeably after 1920, at least in the United States, population densities continued on their rising curve to as late as 1950, reaching averages in the larger cities of 15,000 people per square mile, and ranging up to 100,000 per square mile in inner zones of the very large places. No doubt there were many advantages in such densities. Workers could be close to places of employment, personal and household services could be located conveniently, neighbors were close at hand for mutual aid and conviviality, and individuals could enjoy a stimulating environment composed of people from many different experiences and backgrounds. But Louis Wirth exposed the negative side of population density.¹⁴ As he saw it, density, if only because of the sheer numbers present in a limited space, encouraged an impersonality in relationships, a view of one's fellows as means to ends, and in general an exploitative attitude of persons toward one another. These were put forth as the ingredients of the urban way of life, and they have been so accepted down to the present. In one short paper, Wirth determined the interpretation of density for an entire generation of social scientists. He also, inadvertently I am sure, bestowed re-

spectability upon sweeping generalization from a limited case. Whether for that or other reasons there is now a fairly long history of the making of pronouncements about the dispiriting and debilitating effects of density without benefit of comparative data. This tendency has persisted despite counter evidence supplied by O. D. Duncan¹⁵ and A. J. Reiss.¹⁶ A more recent paper by Stanley Milgram, on "The Experience of Living in Cities",¹⁷ once again underscores the need for comparative study of density effects.

It is true, of course, that densities in cities have been shown to be positively correlated with frequencies of delinquency, of low educational attainment, of broken homes, of mental disorders, and of other deviations from the average and perhaps the desirable. Data problems aside, social characteristics such as these are more readily explained in terms of poverty and underprivileged status than as consequences of high physical density. In fact, exceptionally high physical density in contemporary urban areas quite probably is a function of the same causes that produce abnormal behaviors.¹⁸ It may be noted in passing that Europeans of all social-economic classes have lived in crowded quarters for generations without exhibiting unusual frequencies of aberrant behaviors.

Nor is there any convincing evidence that physical density exerts a measurable effect on health. Indeed Western history argues for the contrary. Mortality and morbidity rates declined more or less continuously as urban densities increased. Robert Schmitt, however, reported contradictory findings from his study of census tracts in Honolulu. He distinguished between density, as persons per acre, and congestion, as persons per room, and, with crude controls on education and income, he found that density explained more variance than did congestion in variables such as in-

fant death rate, suicide rate, tuberculosis rates, venereal disease rates, and other pathologies.¹⁹ This conclusion finds no support in a study of Hong Kong by the same researcher²⁰ or in other studies that have dealt with the problem.²¹

In a very careful review of the research literature John Cassell concluded that there is no demonstrable direct effect of density on infectious disease.²² The incidence of that class of diseases is more readily explainable, according to Cassell, by events in the social environment in which density may or may not be an operating condition. That is, the stresses and strains encountered in group situations may activate latent infections which then appear in increased morbidity. In this connection, too, it seems that disease is more directly a consequence of poverty, ignorance of proper diet, and neglect of sanitary practices than it is of population density.

The concern over density most commonly heard at present harks back to the problems of the rat in the experimental setting. We are told that the effects of density include the following:

- 1) Interference with goal-attainment efforts;
- 2) Deprivation of gratifications;
- 3) Intrapersonal incompatibility of values and motives;
- 4) Overload of demands and claims from others;
- 5) Interpersonal opposition arising from incompatible claims to scarce facilities and rewards;
- 6) Failures of support for norm-following behavior; and
- 7) Involuntary exposure to noxious stimuli.²³

How such effects can be assigned a priori to density is far from clear. Nor is it self-evident that they do not occur under other conditions. Assuming that the listed traits have some connection with physical density, each one has a complement that might also be a density

function. Thus, while there may be "interference with goal attainment efforts", there is also a greater chance of finding support for goal attainment efforts. If there is "deprivation of gratification", there are also numerous provisions for gratification. Again, "failures of support for norm-following behavior" is countered by the availability of many opportunities to associate with like-minded persons. A matching list of density effects, then, would include:

- 1) Institutional support for goal attainment efforts;
- 2) Unparalleled opportunity for gratification;
- 3) Opportunity for selective association relative to compatibility of values and motives;
- 4) Overload of opportunity and stimulation;
- 5) Mutual assistance in achieving access to scarce facilities and rewards;
- 6) Easy availability of like-minded associates for support in norm-following behavior; and
- 7) Involuntary exposure to education, cosmopolitanism and innovative ideas.

This difference of opinion suggests that the psychological as well as the economic analysis of physical density should be submitted to a cost-benefit treatment.

No doubt the most serious risk generated in congestion is that resulting from communication overloads, though it must be admitted that the evidence pointing to this danger is fragmentary. Nevertheless, it seems reasonable that the numerous formal and informal flows of information which converge upon the individual in a modern metropolis, the many admonitions regarding instructions, rules and procedures to which he is subjected, the innumerable visual, tactile and other sensory stimuli which impinge upon him, and the demands on

his time and attention made by work, family and community together might very well be enervating and tension-producing to the point of danger to the person's mental health. Richard Meier has estimated that in a modern metropolitan area of 5,000,000 people the daily per capita bits of information circulated is of the order of 274,000, or about 2800 per waking minute.²⁴ A great part of this incredible volume must flow through institutionalized channels and be mechanically processed. Still the magnitude of the flow is such that the fraction reaching individuals directly could be considerable.

An important factor in the mitigation of the possible hazards in communication overloads is the human being's inventiveness of ways to secure protection from excessive or unwanted influences. The concept of property and the rules of privacy associated with it, the elaborate codes of etiquette, and the many formalities of behavior that characterize social situations serve the purpose of insulating the person against the abrasive effects of too many contacts and too much information. These means of protection are supplemented by individual mobility. Periodic escapes into sheltered places provide a respite from incessant attacks upon one's sensory organs. A question of some moment in this respect concerns how the capacity to acquire and employ such behavioral devices is distributed in a population. If it varies by socioeconomic class a community might be faced with a serious problem. On the other hand, if exposure to communication impulses also varies by social-economic class the problem is less severe. It is not unlikely, however, that the ratio of exposure frequency to ability to accommodate to it is constant across all classes.

As I have already suggested, a great deal of the information that circulates in an urban system is deflected into organization channels. Numerous special-

ists funnel to the consumer the distilled effects of a vast amount of producing, transporting, financing, risk-taking and administrative activity. His role as a citizen is simplified by various other specialists. The politician takes care of one's political responsibilities, the social worker relieves him of direct involvement in charity, and the preacher is his proxy in communications with the deity. An occasional vote at election times and the payment of relatively small fees hires these services and leaves the person free to attend to more urgent matters. Organization is a means of ingesting, coding, and selectively distributing information to the participating members of a system. Organizations, of course, can have various imperfections, so that some individuals are much more vulnerable to communication overloads than is necessary.

In any event, the revived interest in the social effects of physical density has failed to take one set of facts into account. Population densities in central cities of metropolitan areas have been in decline for the past 20 years. When central cities are classified by age, the census date at which they first attained 50,000 population or more, it is found that all classes of cities reached their peak densities in 1950. In the following decade all classes of central cities experienced declines of population within their 1950 territories. The reductions varied from three percent in the oldest areas to 46 percent in the youngest ones. In the 1960-70 decade declines continued in the classes of old metropolitan centers, but there were some small reversals of the trend among central cities that qualified as metropolitan after 1900. Density increases occurred in but a third of all centers and these had 1960 areas that averaged 50 percent larger than the two-thirds that had density losses. Taken together all central cities lost population within their 1960 boundaries. The entire increase of population within

central cities of metropolitan areas during 1960-70 was due to annexation. It seems unlikely that the reversals that have occurred can be more than momentary, though it is conceivable that massive federal aid to cities could alter the density trend.

The trend toward a decline of density in metropolitan cores is consistent with the long-term trend in the growth of urban areas of industrial societies. If we were to observe that trend within an area with a radius of 35 miles centered upon a favorably located city, we would note two rather well-marked though overlapping phases. In the first phase growth and distribution of population were primarily centripetal. Settlement within the radius defined, as well as new increments to the total population, congregated increasingly in the center at the expense of absolute losses in the outermost zones of the area. But before this phase of central growth was concluded the second or centrifugal phase began. That is, population growth in the innermost zones of the central city slowed and then fell below zero. Subsequently the zone of negative growth surrounding the business core has widened steadily. In the meantime population and growth increments have moved outward, spilling over the boundaries of central cities and invading even the outer zones that had earlier been the scenes of population declines.

The centrifugal movement of urban population has a history that extends back into the nineteenth century. Density declines and absolute losses in the inner zones began shortly after 1850 in New York, London, Hamburg and other large cities and became apparent in many smaller ones before that century closed.²⁵ They have since become commonplace, as I have noted. The factors underlying the centrifugal drift initially were improvements in local transportation and communication facilities and the continued expansion of the business

core. Population retreated as the approach of business and industrial uses blighted the land for residential occupancy and drove land values above what low intensity residential uses could sustain. A significant shift has occurred, however, in the centrifugal trend. Whereas until 1950 or thereabouts there were usually high intensity uses available to bid for residential properties adjoining industrial and commercial districts, that kind of replacement has diminished and has ceased entirely in some metropolitan centers. Hence, the cycling of land from low to high intensity uses can no longer be expected. As a result the continuing centrifugal movement of urban population and urban institutions leaves a widening core of obsolescent, deteriorated and abandoned buildings where once stood the richest sources of municipal revenues. On the positive side, the spreading disuse of interior space offers a unique opportunity to completely redesign the cores of metropolitan areas. Persons concerned with the quality of urban environment might take some comfort from the course of change.

The reduction of density associated with the centrifugal movement of urban population is not just that and nothing more. It marks a general subsiding of the importance of proximity. Whereas it was once necessary that closely related activities be located within hailing distances of one another, that is no longer the case. The distances that can separate interdependent units at no loss of access continues to increase. The other side of the coin is that units are no longer under any compulsion to accept what is close at hand, whether that be services from nearby institutions or associations with neighbors. One can choose his services and his personal associations from a progressively widening area. Accordingly, the vicinage seems to be in decline as a social unit.

Costs of transportation and communication have been and are still being substituted for the costs of limited choice. Not all units are able to make the substitution. The marginal enterprise and the poor urban resident, lacking the wherewithal for unrestricted use of the facilities for movement, must be content with what is available within the immediate locality.²⁶ Thus emancipation from the rule of proximity varies more or less directly with the resources at the disposal of the unit in question, though units at all levels are less confined by distance than was formerly the case.²⁷ The neighborhood, as it is conventionally thought of, is by way of becoming an exclusive possession of the poor and the handicapped.

As local distances have lost much of their limiting effects traditional units have sunk into obsolescence. This appears to have happened not only to the informal neighborhood, but to the city as a whole. The city has been stripped of most of its unique functions and lingers on as a political anachronism. The effective urban unit is now the metropolitan area, uncoordinated and awkward though it may be. Even that, however, in the shape of the Standard Metropolitan Statistical Area, seems to be losing its adequacy as a definition of the urban unit. The deconcentration of population and institutions is reaching beyond metropolitan boundaries. We can expect physical densities in and around urban centers to continue to decline. Not so with social density, however. As organizations grow in scale and complexity (and there is no reason to believe that they will do otherwise), the volume of information will increase in exponential fashion. There is a growing need for innovation in the redesigning of urban systems in order to accommodate the mounting flows of communications while preserving integration in the systems.

FOOTNOTES

¹ Morton and Lucia White, *The Intellectual and the City* (Cambridge: MIT Press, 1962).

² Nathan Glazer, *Cities in Trouble* (New York: Quadrangle, 1970), pp. 3-4; and William Michelson, *Man and His Urban Environment: A Sociological Approach* (Reading, Mass.: Addison-Wesley, 1970), pp. 152-159.

³ *Death and Life of Great American Cities* (New York: Random House, 1961).

⁴ "Population Density and Social Pathology", *Scientific American*, CCVI (1962):139-148.

⁵ *op. cit.*

⁶ *Man Adapting* (New Haven: Yale University Press, 1965), p. 168.

⁷ Review of *Behavior and Environment*, ed. by Aristede H. Esser, *Science*, 173 (2 July 1971):42-43.

⁸ "Social Subordination, Population Density, and Mammalian Evolution", *Science*, 168 (3 April 1970):84-90.

⁹ The similarity to Emile Durkheim's "material" and "moral" density will be recognized. (*The Division of Labor in Society*, trans. by George Simpson [New York: Macmillan, 1933], pp. 233ff.)

¹⁰ See Eric Lampard, "The History of Cities in the Economically Advanced Areas", *Economic Development and Cultural Change*, III (1955):90-92.

¹¹ See Kenneth Boulding, "Toward A General Theory of Growth", *Canadian Journal of Economics and Political Science*, XIX (1953):326-340.

¹² Nathan Keyfitz, "Population Density and the Style of Life", *BioScience*, 16 (1966):868-872.

¹³ See Joseph J. Spengler, "Megalopolis: Resource Conservor or Resource Waster?", *Natural Resources Journal*, 7 (1967):386-387.

¹⁴ "Urbanism as a Way of Life", *American Journal of Sociology*, XL (1938):1-24.

¹⁵ "Optimum Size of Cities", in Paul K. Hatt and Albert J. Reiss, Jr. (eds.), *Cities and Society* (Glencoe, Ill.: The Free Press, 1956), pp. 759-772.

¹⁶ "An Analysis of Urban Phenomena", in Robert M. Fisher (ed.), *The Metropolis and*

Modern Life (New York: Doubleday, 1955), pp. 45-51.

¹⁷ *Science*, 167 (13 March 1970):1461-1468.

¹⁸ This suggestion finds support in Omer R. Galle, Walter R. Grove and J. Miller McPherson, "Population Density and Pathology: What Are the Relations for Man?", *Science*, 176 (7 April 1972):23-30.

¹⁹ "Density, Health and Social Organization", *American Institute of Planners Journal*, 32 (1966):38-42.

²⁰ Robert Schmitt, "Implications of Density in Hong Kong", *American Institute of Planners Journal*, 29 (1963):210-217.

²¹ A. E. Martin, "Environment, Housing and Health", *Urban Studies*, 4 (1967):1-21; and G. Rosenberg, "High Population Densities in Relation to Social Behavior", *Ekistics*, 25 (1968):425-427.

²² "Health Consequences of Population Density and Crowding", in National Academy of Sciences, *Rapid Population Growth: Consequences and Policy Implications* (Baltimore: Johns Hopkins Press, 1971), pp. 462-478.

²³ Robin Williams, "Social Congestion and Social Conflict", unpublished manuscript (1971).

²⁴ *A Communications Theory of Urban Growth* (Cambridge: MIT Press, 1962), p. 130.

²⁵ Adna Weber, *The Growth of Cities in the Nineteenth Century* (New York: Columbia University Press, 1899), ch. IX.

²⁶ See Donald Foley, "The Use of Local Facilities in a Metropolis", *American Journal of Sociology*, 56 (1950):238-246; and Amos H. Hawley, *Urban Society: An Ecological Approach* (New York: Ronald Press, 1971), pp. 193-197.

²⁷ In the light of recent trends it seems ingenious of a panel of technological experts to propose a highly sophisticated urban communication system in which the unit parts are to be "no larger a scale than that of a rural village." (Committee on Telecommunications, National Academy of Engineering, *Communications Technology for Urban Improvement* [Washington, D.C.: National Academy of Engineering, 1971], pp. 6ff.)