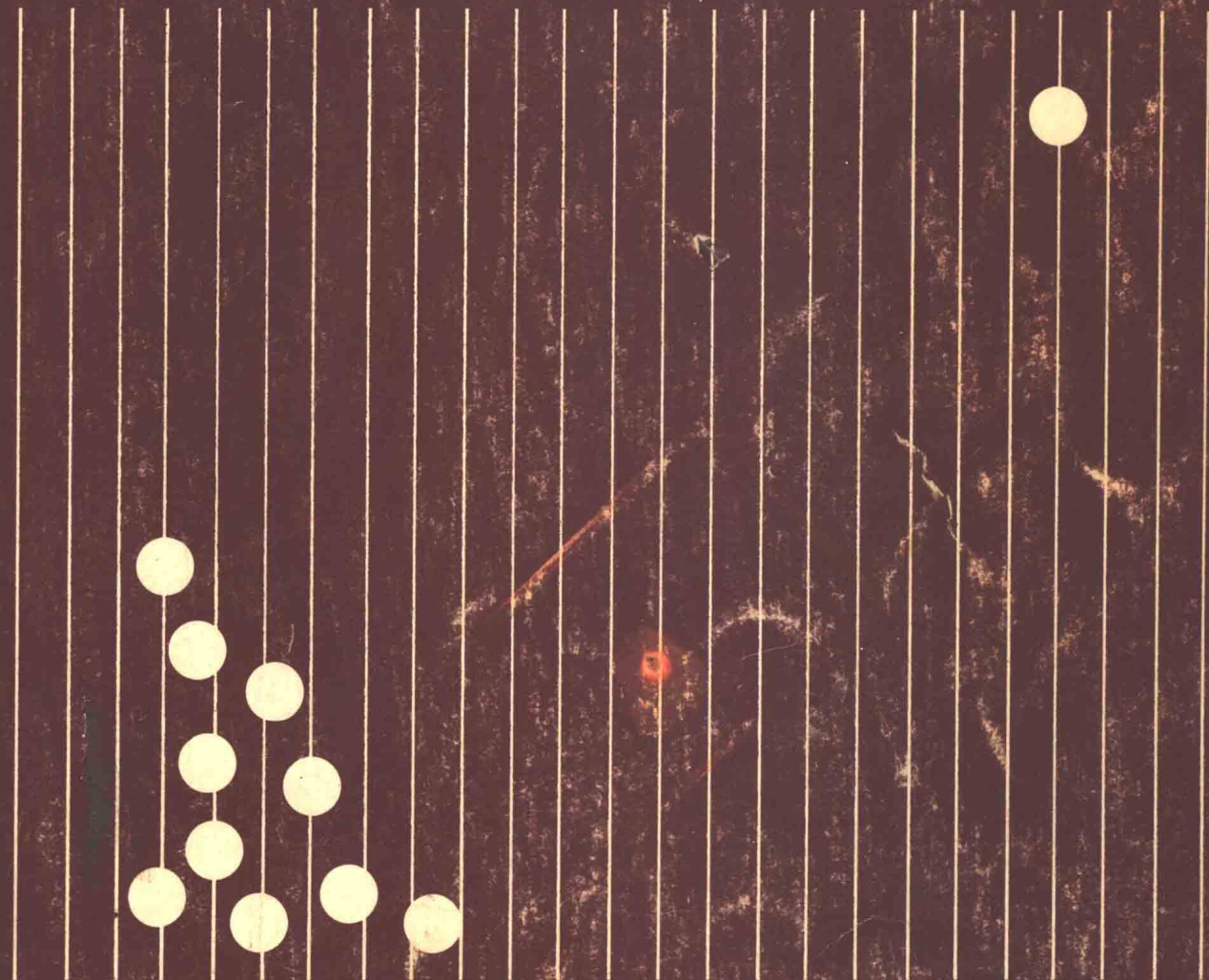

READINGS FOR INTRODUCTORY SOCIOLOGY



Edited by George W. Barger

READINGS FOR INTRODUCTORY SOCIOLOGY.

Edited by
George W Barger



Copley Publishing Group
Acton, Massachusetts 01720

© 1985 by George W. Barger. All rights reserved

Printed in the United States of America.

ISBN 0-87411-011-4

Acknowledgments:

- Lauriston Sharp, "Steel Axes for Stone Age Australians." Reproduced by permission of the Society for Applied Anthropology from *Human Organization* 11 (2): 17-22, 1952. Not for further reproduction.
- W. W. Rostow, "Why Traditional Societies Did Not Generate Self-Sustained Growth." Reprinted by permission of The Jullan Bach Agency. Copyright © 1975 by W. W. Rostow.
- Reinhard Bendix, "Tradition and Modernity Reconsidered." From *Comparative Studies in Society and History* 9 (1967):292-346. Reprinted by permission of the publisher, Cambridge University Press.
- Douglas H. Powell and Paul F. Driscoll, "Middle-Class Professionals Face Unemployment." Published by permission of Transaction, Inc. from *Society*, Vol. 10, No. 2, Copyright © 1973 by Transaction, Inc.
- Annabelle B. Motz and George H. Weber, "On Becoming a Dropout." From *Phylon: The Atlanta Review of Race and Culture* 30 (1969):125-138. Reprinted by permission.
- Karl Marx, "Social Classes and Class Conflict." From *Karl Marx: Selected Writings in Sociology and Social Philosophy*, edited by T. B. Bottomore, 1956. Reprinted by permission of McGraw-Hill Book Company.
- Donald J. Treiman, "A Standard Occupational Prestige Scale for Use with Historical Data." Reprinted from *The Journal of Interdisciplinary History*, VII (1976), 283-304, with permission of the editors of *The Journal of Interdisciplinary History* and The MIT Press, Cambridge, Massachusetts. Copyright © 1976 by Massachusetts Institute of Technology and the editors of *The Journal of Interdisciplinary History*.
- Kingsley Davis and Wilbert E. Moore, "Some Principles of Stratification." From *American Sociological Review* 10 (1945):242-249. Reprinted with consent of the authors and by permission of the copyright holder, the American Sociological Association.
- Garrett Hardin, "The Tragedy of the Commons." From *Science* 162 (13 December 1968):1243-1248. Copyright 1968 by the American Association for the Advancement of Science.
- Gideon Sjoberg, "The Origin and Evolution of Cities." From *Scientific American*, September 1965, pp. 19-27. Copyright © 1965 by Scientific American, Inc. All rights reserved.
- Jane Jacobs, "Cities and the Wealth of Nations." From *Cities and the Wealth of Nations*, by Jane Jacobs. Copyright © 1984 by Jane Jacobs. Reprinted by permission of Random House Inc.
- Ralph H. Todd, "A City Index: Measurement of a City's Attractiveness." From *Review of Applied Urban Research* 5 (July 1977):1-19. Reprinted by permission of the Center for Applied Urban Research, Omaha, Nebraska.
- Kurt Wolff, "The Metropolis and Mental Life." Reprinted with permission of The Free Press, a Division of Macmillan, Inc. from *The Sociology of George Simmel* by Kurt Wolff, Translator & Editor. Copyright 1950, renewed 1978 by The Free Press.
- Lenore Walker, "The Story of Anne." Pp. 1-9, 18-41 from *The Battered Woman* by Lenore Walker. Copyright © 1979 by Lenore E. Walker. Reprinted by permission of Harper & Row, Publishers, Inc.
- David L. Rosenhan, "On Being Sane in Insane Places." From *Science* 179 (19 January 1973):250-258. Copyright 1973 by the American Association for the Advancement of Science.
- D.F. Aberle et al., "The Functional Prerequisite of a Society." From *Ethics* 60 (1950):100-111. Copyright © 1960 by The University of Chicago. Reprinted by permission of The University of Chicago Press.
- Kingsley Davis, "Final Note on a Case of Extreme Isolation." From *American Journal of Sociology* 5 (March 1947):432-437. Reprinted by permission of the author.
- Jack McClintock, "The Edith Project." Copyright © 1977 by *Harper's Magazine*. All rights reserved. Reprinted from the March, 1977 issue by special permission.
- Melvin L. Kohn, "Bureaucratic Man: A Portrait and an Interpretation." From *American Sociological Review* 36 (1971):461-474. Reprinted with consent of the author and by permission of the copyright holder, the American Sociological Association.
- W. Boyd Littrell, "Competition, Bureaucracy, and Hospital Care: Costs in a Midwestern City." From *Bureaucracy As a Social Problem*, edited by W. Boyd Littrell, Gideon Sjoberg, and Louis A. Zurcher. Copyright © 1983 by JAI PRESS INC. Reprinted by permission of the publisher.
- Peter Berger and Hansfried Kellner, "Marriage and the Construction of Reality." From *Diogenes* 46 (1964):1-24. Reprinted by permission of the International Council for Philosophy and Humanistic Studies.
- Mary Barnard, "The God in the Flowerpot." From *The Mythmakers* (Athens, Ohio: Ohio University Press, 1966). Reprinted by permission of the author.

Oscar Lewis, "The Culture of Poverty." From *La Vida*, by Oscar Lewis. Copyright © 1965, 1966 by Oscar Lewis. Reprinted by permission of Random House Inc.

Emory S. Bogardus, "A Social Distance Scale." From *Sociology and Social Research* 17 (1932-1933):265-271. Reprinted by permission of the publisher.

W. E. Moore, "Social Change." Reprinted with permission of the publisher from the *International Encyclopedia of the Social Sciences*, David L. Sills, Editor. Volume 8, pages 365-375. Copyright © 1968 by Crowell Collier and Macmillan, Inc.

Richard Hofstadter, "Trends in Social Theory." From *Social Darwinism in American Thought*. © 1944, 1955 by the American Historical Association, renewed 1973 by Beatrice K. Hofstadter. Reprinted by permission of Beatrice K. Hofstadter.

Richard Henshel, "Sociology and Social Forecasting." Reproduced, with permission, from the *Annual Review of Sociology*, Volume 8, © 1982 by Annual Reviews, Inc.

Contents

Unit 1 INDUSTRIALIZATION

Steel Axes for Stone-Age Australians <i>Lauriston Sharp</i>	3
Why Traditional Societies Did Not Generate Self-Sustained Growth <i>W. W. Rostow</i>	9
Tradition and Modernity Reconsidered <i>Reinhard Bendix</i>	31
Middle-Class Professionals Face Unemployment <i>Douglas H. Powell and Paul F. Driscoll</i>	75
On Becoming a Dropout <i>Annabelle B. Motz and George H. Weber</i>	81
Social Classes and Class Conflict <i>Karl Marx</i>	93
A Standard Occupational Prestige Scale for Use with Historical Data <i>Donald J. Treiman</i>	109
Some Principles of Stratification <i>Kingsley Davis and Wilbert E. Moore</i>	125

Unit 2 URBANIZATION

The Tragedy of the Commons <i>Garrett Hardin</i>	135
The Origin and Evolution of Cities <i>Gideon Sjoberg</i>	141
Cities and the Wealth of Nations <i>Jane Jacobs</i>	146
A City Index: Measurement of a City's Attractiveness <i>Ralph H. Todd</i>	164
The Metropolis and Mental Life <i>Kurt Wolff</i>	180
The Size and Variety of the Union As a Check on Faction <i>James Madison</i>	191
Checks and Balances <i>James Madison</i>	197
The Story of Anne <i>Lenore E. Walker</i>	201
On Being Sane in Insane Places <i>David L. Rosenhan</i>	224

Unit 3 BUREAUCRATIZATION

The Functional Prerequisites of a Society <i>D. F. Aberle, A. K. Cohen, A. K. Davis, M. J. Levy, Jr., and F. X. Sutton</i>	235
Final Note on a Case of Extreme Isolation <i>Kingsley Davis</i>	245
The Edith Project <i>Jack McClintock</i>	250
Bureaucratic Man: A Portrait and an Interpretation <i>Melvin L. Kohn</i>	254
Competition, Bureaucracy and Hospital Care: Costs in a Midwestern City <i>W. Boyd Littrell</i>	266
Marriage and the Construction of Reality <i>Peter Berger and Hansfried Kellner</i>	279
The God in the Flowerpot <i>Mary Barnard</i>	295

Unit 4 FUTURIZATION

The Culture of Poverty <i>Oscar Lewis</i>	305
A Social Distance Scale <i>Emory S. Bogardus</i>	314
The "Phanton Anesthetist" of Mattoon: A Field Study of Mass Hysteria <i>Donald M. Johnson</i>	319
Social Change <i>W. E. Moore</i>	326
Trends in Social Theory <i>Richard Hofstadter</i>	336
Sociology and Social Forecasting <i>Richard Henshel</i>	356

Unit 1
Industrialization

Steel Axes for Stone-Age Australians

Lauriston Sharp

I

Like other Australian aboriginals, the Yir Yoront group which lives at the mouth of the Coleman River on the west coast of Cape York Peninsula originally had no knowledge of metals. Technologically their culture was of the old stone age or paleolithic type. They supported themselves by hunting and fishing, and obtained vegetables and other materials from the bush by simple gathering techniques. Their only domesticated animal was the dog; they had no cultivated plants of any kind. Unlike some other aboriginal groups, however, the Yir Yoront did have polished stone axes hafted in short handles which were most important in their economy.

Towards the end of the 19th century metal tools and other European artifacts began to filter into the Yir Yoront territory. The flow increased with the gradual expansion of the white frontier outward from southern and eastern Queensland. Of all the items of western technology thus made available, the hatchet, or short handled steel axe, was the most acceptable to and the most highly valued by all aboriginals.

In the mid 1930's an American anthropologist lived alone in the bush among the Yir Yoront for 13 months without seeing another white man. The Yir Yoront were thus still relatively isolated and continued to live an essentially independent economic existence, supporting themselves entirely by means of their old stone age techniques. Yet their polished stone axes were disappearing fast and being replaced by steel axes which came to them in considerable numbers, directly or indirectly, from various European sources to the south.

What changes in the life of the Yir Yoront still living under aboriginal conditions in the Australian bush could be expected as a result of their increasing possession and use of the steel axe?

II

The Course of Events

Events leading up to the introduction of the steel axe among the Yir Yoront begin with the advent of the second known group of Europeans to reach the shores of the Australian continent. In 1623 a Dutch expedition landed on the coast where the Yir Yoront now live.¹ In 1935 the Yir Yoront were still using the few cultural items recorded in the Dutch log for the aboriginals they encountered. To this cultural inventory the Dutch added beads and pieces of iron which they offered in an effort to attract the frightened "Indians." Among these natives metal and beads have disappeared, together with any memory of this first encounter with whites.

The next recorded contact in this area was in 1864. Here

there is more positive assurance that the natives concerned were the immediate ancestors of the Yir Yoront community. These aboriginals had the temerity to attack a party of cattle men who were driving a small herd from southern Queensland through the length of the then unknown Cape York Peninsula to a newly established government station at the northern tip.² Known as the "Battle of the Mitchell River," this was one of the rare instances in which Australian aboriginals stood up to European gunfire for any length of time. A diary kept by the cattle men records that: "... 10 carbines poured volley after volley into them from all directions, killing and wounding with every shot with very little return, nearly all their spears having already been expended. ... About 30 being killed, the leader thought it prudent to hold his hand, and let the rest escape. Many more must have been wounded and probably drowned, for 59 rounds were counted as discharged." The European party was in the Yir Yoront area for three days; they then disappeared over the horizon to the north and never returned. In the almost three-year long anthropological investigation conducted some 70 years later—in all the material of hundreds of free association interviews, in texts of hundreds of dreams and myths, in genealogies, and eventually in hundreds of answers to direct and indirect questioning on just this particular matter—there was nothing that could be interpreted as a reference to this shocking contact with Europeans.

The aboriginal accounts of their first remembered contact with whites begin in about 1900 with references to persons known to have had sporadic but lethal encounters with them. From that time on whites continued to remain on the southern periphery of Yir Yoront territory. With the establishment of cattle stations (ranches) to the south, cattle men made occasional excursions among the "wild black-fellows" in order to inspect the country and abduct natives to be trained as cattle boys and "house girls." At least one such expedition reached the Coleman River where a number of Yir Yoront men and women were shot for no apparent reason.

About this time the government was persuaded to sponsor the establishment of three mission stations along the 700-mile western coast of the Peninsula in an attempt to help regulate the treatment of natives. To further this purpose a strip of coastal territory was set aside as an aboriginal reserve and closed to further white settlement.

In 1915, an Anglican mission station was established near the mouth of the Mitchell River, about a three-day march from the heart of the Yir Yoront country. Some Yir Yoront

refused to have anything to do with the mission, others visited it occasionally, while only a few eventually settled more or less permanently in one of the three "villages" established at the mission.

Thus the majority of the Yir Yoront continued to live their old self-supporting life in the bush, protected until 1942 by the government reserve and the intervening mission from the cruder realities of the encroaching new order from the south. To the east was poor, uninhabited country. To the north were other bush tribes extending on along the coast to the distant Archer River Presbyterian mission with which the Yir Yoront had no contact. Westward was the shallow Gulf of Carpentaria on which the natives saw only a mission lugger making its infrequent dry season trips to the Mitchell River. In this protected environment for over a generation the Yir Yoront were able to recuperate from shocks received at the hands of civilized society. During the 1930's their raiding and fighting, their trading and stealing of women, their evisceration and two- or three-year care of their dead, and their totemic ceremonies continued, apparently uninhibited by western influence. In 1931 they killed a European who wandered into their territory from the east, but the investigating police never approached the group whose members were responsible for the act.

As a direct result of the work of the Mitchell River mission, all Yir Yoront received a great many more western artifacts of all kinds than ever before. As part of their plan for raising native living standards, the missionaries made it possible for aboriginals living at the mission to earn some western goods, many of which were then given or traded to natives still living under bush conditions; they also handed out certain useful articles gratis to both mission and bush aboriginals. They prevented guns, liquor, and damaging narcotics, as well as decimating diseases, from reaching the tribes of this area, while encouraging the introduction of goods they considered "improving." As has been noted, no item of western technology available, with the possible exception of trade tobacco, was in greater demand among all groups of aboriginals than the short handled steel axe. The mission always kept a good supply of these axes in stock; at Christmas parties or other mission festivals they were given away to mission or visiting aboriginals indiscriminately and in considerable numbers. In addition, some steel axes as well as other European goods were still traded in to the Yir Yoront by natives in contact with cattle stations in the south. Indeed, steel axes had probably come to the Yir Yoront through established lines of aboriginal trade long before any regular contact with whites had occurred.

III

Relevant Factors

If we concentrate our attention on Yir Yoront behavior centering about the original stone axe (rather than on the axe—the object—*itself*) as a cultural trait or item of cultural equipment, we should get some conception of the role this implement played in aboriginal culture. This, in turn, should enable us to foresee with considerable accuracy some of the results stemming from the displacement of the stone axe by the steel axe.

The production of a stone axe required a number of simple technological skills. With the various details of the axe well in mind, adult men could set about producing it (a task not considered appropriate for women or children). First of all a man had to know the location and properties of several natural resources found in his immediate environment: pliable wood for a handle, which could be doubled or bent over the axe head and bound tightly; bark, which could be rolled into cord for the binding; and gum, to fix the stone head in the haft. These materials had to be correctly gathered, stored, prepared, cut to size and applied or manipulated. They were in plentiful supply, and could be taken from anyone's property without special permission. Postponing consideration of the stone head, the axe could be made by any normal man who had a simple knowledge of nature and of the technological skills involved, together with fire (for heating the gum), and a few simple cutting tools—perhaps the sharp shells of plentiful bivalves.

The use of the stone axe as a piece of capital equipment used in producing other goods indicates its very great importance to the subsistence economy of the aboriginal. Anyone—man, woman, or child—could use the axe; indeed, it was used primarily by women, for their's was the task of obtaining sufficient wood to keep the family campfire burning all day, for cooking or other purposes, and all night against mosquitoes and cold (for in July, winter temperature might drop below 40 degrees). In a normal lifetime a woman would use the axe to cut or knock down literally tons of firewood. The axe was also used to make other tools or weapons, and a variety of material equipment required by the aboriginal in his daily life. The stone axe was essential in the construction of the wet season domed huts which keep out some rain and some insects; of platforms which provide dry storage; of shelters which give shade in the dry summer when days are bright and hot. In hunting and fishing and in gathering vegetable or animal food the axe was also a necessary tool, and in this tropical culture, where preservatives or other means of storage are lacking, the natives spend more time obtaining food than in any other occupation—except sleeping. In only two instances was the use of the stone axe strictly limited to adult men: for gathering wild honey, the most prized food known to the Yir Yoront; and for making the secret paraphernalia for ceremonies. From this brief listing of some of the activities involving the use of the axe, it is easy to understand why there was at least one stone axe in every camp, in every hunting or fighting party, and in every group out on a "walk-about" in the bush.

The stone axe was also prominent in interpersonal relations. Yir Yoront men were dependent upon interpersonal relations for their stone axe heads, since the flat, geologically-recent, alluvial country over which they range provides no suitable stone for this purpose. The stone they used came from quarries 400 miles to the south, reaching the Yir Yoront through long lines of male trading partners. Some of these chains terminated with the Yir Yoront men, others extended on farther north to other groups, using Yir Yoront men as links. Almost every older adult man had one or more regular trading partners, some to the north and some to the south. He provided his partner or partners in the south with surplus spears, particularly fighting spears tipped with the barbed spines of sting ray which snap into viscous fragments when

they penetrate human flesh. For a dozen such spears, some of which he may have obtained from a partner to the north, he would receive one stone axe head. Studies have shown that the sting ray barb spears increased in value as they move south and farther from the sea. One hundred and fifty miles south of Yir Yoront one such spear may be exchanged for one stone axe head. Although actual investigations could not be made, it was presumed that farther south, nearer the quarries, one sting ray barb spear would bring several stone axe heads. Apparently people who acted as links in the middle of the chain and who made neither spears nor axe heads would receive a certain number of each as a middleman's profit.

Thus trading relations, which may extend the individual's personal relationships beyond that of his own group, were associated with spears and axes, two of the most important items in a man's equipment. Finally, most of the exchanges took place during the dry season, at the time of the great aboriginal celebrations centering about initiation rites or other totemic ceremonials which attracted hundreds and were the occasion for much exciting activity in addition to trading.

Returning to the Yir Yoront, we find that adult men kept their axes in camp with their other equipment, or carried them when travelling. Thus a woman or child who wanted to use an axe—as might frequently happen during the day—had to get one from a man, use it promptly, and return it in good condition. While a man might speak of "my axe," a woman or child could not.

This necessary and constant borrowing of axes from older men by women and children was in accordance with regular patterns of kinship behavior. A woman would expect to use her husband's axe unless he himself was using it; if unmarried, or if her husband was absent, a woman would go first to her older brother or to her father. Only in extraordinary circumstances would she seek a stone axe from other male kin. A girl, a boy, or a young man would look to a father or an older brother to provide an axe for their use. Older men, too, would follow similar rules if they had to borrow an axe.

It will be noted that all of these social relationships in which the stone axe had a place are pair relationships and that the use of the axe helped to define and maintain their character and the roles of the two individual participants. Every active relationship among the Yir Yoront involved a definite and accepted status of superordination or subordination. A person could have no dealings with another on exactly equal terms. The nearest approach to equality was between brothers, although the older was always superordinate to the younger. Since the exchange of goods in a trading relationship involved a mutual reciprocity, trading partners usually stood in a brotherly type of relationship, although one was always classified as older than the other and would have some advantage in case of dispute. It can be seen that repeated and widespread conduct centering around the use of the axe helped to generalize and standardize these sex, age, and kinship roles both in their normal benevolent and exceptional malevolent aspects.

The status of any individual Yir Yoront was determined not only by sex, age, and extended kin relationships, but also by membership in one of two dozen patrilineal totemic clans into which the entire community was divided.³ Each clan had literally hundreds of totems, from one or two of which the clan derived its name, and the clan members their personal

names. These totems included natural species or phenomena such as the sun, stars, and daybreak, as well as cultural "species": imagined ghosts, rainbow serpents, heroic ancestors; such eternal cultural verities as fires, spears, huts; and such human activities, conditions, or attributes as eating, vomiting, swimming, fighting, babies and corpses, milk and blood, lips and loins. While individual members of such totemic classes or species might disappear or be destroyed, the class itself was obviously ever-present and indestructible. The totems, therefore, lent permanence and stability to the clans, to the groupings of human individuals who generation after generation were each associated with a set of totems which distinguished one clan from another.

The stone axe was one of the most important of the many totems of the Sunlit Cloud Iguana clan. The names of many members of this clan referred to the axe itself, to activities in which the axe played a vital part, or to the clan's mythical ancestors with whom the axe was prominently associated. When it was necessary to represent the stone axe in totemic ceremonies, only men of this clan exhibited it or pantomimed its use. In secular life, the axe could be made by any man and used by all; but in the sacred realm of the totems it belonged exclusively to the Sunlit Cloud Iguana people.

Supporting those aspects of cultural behavior which we have called technology and conduct, is a third area of culture which includes ideas, sentiments, and values. These are most difficult to deal with, for they are latent and covert, and even unconscious, and must be deduced from overt actions and language or other communicating behavior. In this aspect of the culture lies the significance of the stone axe to the Yir Yoront and to their cultural way of life.

The stone axe was an important symbol of masculinity among the Yir Yoront (just as pants or pipes are to us). By a complicated set of ideas the axe was defined as "belonging" to males, and everyone in the society (except untrained infants) accepted these ideas. Similarly spears, spear throwers, and fire-making sticks were owned only by men and were also symbols of masculinity. But the masculine values represented by the stone axe were constantly being impressed on all members of society by the fact that females borrowed axes but not other masculine artifacts. Thus the axe stood for an important theme of Yir Yoront culture: the superiority and rightful dominance of the male, and the greater value of his concerns and of all things associated with him. As the axe also had to be borrowed by the younger people it represented the prestige of age, another important theme running through Yir Yoront behavior.

To understand the Yir Yoront culture it is necessary to be aware of a system of ideas which may be called their totemic ideology. A fundamental belief of the aboriginal divided time into two great epochs: (1) a distant and sacred period at the beginning of the world when the earth was peopled by mildly marvelous ancestral beings or culture heroes who are in a special sense the forebears of the clans; and (2) a period when the old was succeeded by a new order which includes the present. Originally there was no anticipation of another era supplanting the present. The future would simply be an eternal continuation and reproduction of the present which itself had remained unchanged since the epochal revolution of ancestral times.

The important thing to note is that the aboriginal believed

that the present world, as a natural and cultural environment, was and should be simply a detailed reproduction of the world of the ancestors. He believed that the entire universe "is now as it was in the beginning" when it was established and left by the ancestors. The ordinary cultural life of the ancestors became the daily life of the Yir Yoront camps, and the extraordinary life of the ancestors remained extant in the recurring symbolic pantomimes and paraphernalia found only in the most sacred atmosphere of the totemic rites.

Such beliefs, accordingly, opened the way for ideas of what *should be* (because it supposedly *was*) to influence or help determine what *actually is*. A man called Dog-chases-iguana-up-a-tree-and-barks-at-him-all-night had that and other names because he believed his ancestral alter ego had also had them; he was a member of the Sunlit Cloud Iguana clan because his ancestor was; he was associated with particular countries and totems of this same ancestor; during an initiation he played the role of a dog and symbolically attacked and killed certain members of other clans because his ancestor (conveniently either anthropomorphic or kynomorphic) really did the same to the ancestral alter egos of these men; and he would avoid his mother-in-law, joke with a mother's distant brother, and make spears in a certain way because his and other people's ancestors did these things. His behavior in these specific ways was outlined, and to that extent determined for him, by a set of ideas concerning the past and the relation of the present to the past.

But when we are informed that Dog-chases-etc. had two wives from the Spear Black Duck clan and one from the Native Companion clan, one of them being blind, that he had four children with such and such names, that he had a broken wrist and was left handed, all because his ancestor had exactly these same attributes, then we know (though he apparently didn't) that the present has influenced the past, that the mythical world has been somewhat adjusted to meet the exigencies and accidents of the inescapably real present.

There was thus in Yir Yoront ideology a nice balance in which the mythical was adjusted in part to the real world, the real world in part to the ideal pre-existing mythical world, the adjustments occurring to maintain a fundamental tenet of native faith that the present must be a mirror of the past. Thus the stone axe in all its aspects, uses, and associations was integrated into the context of Yir Yoront technology and conduct because a myth, a set of ideas, had put it there.

IV The Outcome

The introduction of the steel axe indiscriminately and in large numbers into the Yir Yoront technology occurred simultaneously with many other changes. It is therefore impossible to separate all the results of this single innovation. Nevertheless, a number of specific effects of the change from stone to steel axes may be noted, and the steel axe may be used as an epitome of the increasing quantity of European goods and implements received by the aboriginals and of their general influence on the native culture. The use of the steel axe to illustrate such influences would seem to be justified. It was one of the first European artifacts to be adopted for regular use by the Yir Yoront, and whether made of stone or steel, the axe was clearly one of the most important items of cultural equipment they possessed.

The shift from stone to steel axes provided no major technological difficulties. While the aboriginals themselves could not manufacture steel axe heads, a steady supply from outside continued; broken wooden handles could easily be replaced from bush timbers with aboriginal tools. Among the Yir Yoront the new axe was never used to the extent it was on mission or cattle stations (for carpentry work, pounding tent pegs, as a hammer, and so on); indeed, it had so few more uses than the stone axe that its practical effect on the native standard of living was negligible. It did some jobs better, and could be used longer without breakage. These factors were sufficient to make it of value to the native. The white man believed that a shift from steel to stone axe on his part would be a definite regression. He was convinced that his axe was much more efficient, that its use would save time, and that it therefore represented technical "progress" towards goals which he had set up for the native. But this assumption was hardly born out in aboriginal practice. Any leisure time the Yir Yoront might gain by using steel axes or other western tools was not invested in "improving the conditions of life," nor, certainly, in developing aesthetic activities, but in sleep—an art they had mastered thoroughly.

Previously, a man in need of an axe would acquire a stone axe head through regular trading partners from whom he knew what to expect, and was then dependent solely upon a known and adequate natural environment, and his own skills or easily acquired techniques. A man wanting a steel axe, however, was in no such self-reliant position. If he attended a mission festival when steel axes were handed out as gifts, he might receive one either by chance or by happening to impress upon the mission staff that he was one of the "better" bush aboriginals (the missionaries definition of "better" being quite different from that of his bush fellows). Or, again almost by pure chance, he might get some brief job in connection with the mission which would enable him to earn a steel axe. In either case, for older men a preference for the steel axe helped change the situation from one of self-reliance to one of dependence, and a shift in behavior from well-structured or defined situations in technology or conduct to ill-defined situations in conduct alone. Among the men, the older ones whose earlier experience or knowledge of the white man's harshness made them suspicious were particularly careful to avoid having relations with the mission, and thus excluded themselves from acquiring steel axes from that source.

In other aspects of conduct or social relations, the steel axe was even more significantly at the root of psychological stress among the Yir Yoront. This was the result of new factors which the missionary considered beneficial: the simple numerical increase in axes per capita as a result of mission distribution, and distribution directly to younger men, women, and even children. By winning the favor of the mission staff, a woman might be given a steel axe which was clearly intended to be hers, thus creating a situation quite different from the previous custom which necessitated her borrowing an axe from a male relative. As a result a woman would refer to the axe as "mine," a possessive form she was never able to use of the stone axe. In the same fashion, young men or even boys also obtained steel axes directly from the mission, with the result that older men no longer had a complete monopoly of all the axes in the bush community. All this led to a revolutionary confusion of sex, age, and kinship roles, with a major

gain in independence and loss of subordination on the part of those who now owned steel axes when they had previously been unable to possess stone axes.

The trading partner relationship was also affected by the new situation. A Yir Yoront might have a trading partner in a tribe to the south whom he defined as a younger brother and over whom he would therefore have some authority. But if the partner were in contact with the mission or had other access to steel axes, his subordination obviously decreased. Among other things, this took some of the excitement away from the dry season ~~feasts-like~~ tribal gatherings centering around initiations. These had traditionally been the climactic annual occasions for exchanges between trading partners, when a man might seek to acquire a whole year's supply of stone axe heads. Now he might find himself prostituting his wife to almost total strangers in return for steel axes or other white man's goods. With trading partnerships weakened, there was less reason to attend the ceremonies, and less fun for those who did.

Not only did an increase in steel axes and their distribution to women change the character of the relations between individuals (the paired relationships that have been noted), but a previously rare type of relationship was created in the Yir Yoront's conduct towards whites. In the aboriginal society there were few occasions outside of the immediate family when an individual would initiate action to several other people at once. In any average group, in accordance with the kinship system, while a person might be superordinate to several people to whom he could suggest or command action, he was also subordinate to several others with whom such behavior would be tabu. There was thus no overall chieftanship or authoritarian leadership of any kind. Such complicated operations as grass-burning animal drives or totemic ceremonies could be carried out smoothly because each person was aware of his role.

On both mission and cattle stations, however, the whites imposed their conception of leadership roles upon the aboriginals, consisting of one person in a controlling relationship with a subordinate group. Aboriginals called together to receive gifts, including axes, at a mission Christmas party found themselves facing one or two whites who sought to control their behavior for the occasion, who disregarded the age, sex, and kinship variables of which the aboriginals were so conscious, and who considered them all at one subordinate level. The white also sought to impose similar patterns on work parties. (However, if he placed an aboriginal in charge of a mixed group of post-hole diggers, for example, half of the group, those subordinate to the "boss," would work while the other half, who were superordinate to him, would sleep.) For the aboriginal, the steel axe and other European goods came to symbolize this new and uncomfortable form of social organization, the leader-group relationship.

The most disturbing effects of the steel axe, operating in conjunction with other elements also being introduced from the white man's several sub-cultures, developed in the realm of traditional ideas, sentiments, and values. These were undermined at a rapidly mounting rate, with no new conceptions being defined to replace them. The result was the erection of a mental and moral void which foreshadowed the collapse and destruction of all Yir Yoront culture, if not, indeed, the extinction of the biological group itself.

From what has been said it should be clear how changes in overt behavior, in technology and conduct, weakened the values inherent in a reliance on nature, in the prestige of masculinity and of age, and in the various kinship relations. A scene was set in which a wife, or a young son whose initiation may not yet have been completed, need no longer defer to the husband or father who, in turn, became confused and insecure as he was forced to borrow a steel axe from them. For the woman and boy the steel axe helped establish a new degree of freedom which they accepted readily as an escape from the unconscious stress of the old patterns—but they, too, were left confused and insecure. Ownership became less well defined with the result that stealing and trespassing were introduced into technology and conduct. Some of the excitement surrounding the great ceremonies evaporated and they lost their previous gaiety and interest. Indeed, life itself became less interesting, although this did not lead the Yir Yoront to discover suicide, a concept foreign to them.

The whole process may be most specifically illustrated in terms of totemic system, which also illustrates the significant role played by a system of ideas, in this case a totemic ideology, in the breakdown of a culture.

In the first place, under pre-European aboriginal conditions where the native culture has become adjusted to a relatively stable environment, few, if any, unheard of or catastrophic crises can occur. It is clear, therefore, that the totemic system serves very effectively in inhibiting radical cultural changes. The closed system of totemic ideas, explaining and categorizing a well-known universe as it was fixed at the beginning of time, presents a considerable obstacle to the adoption of new or the dropping of old culture traits. The obstacle is not insurmountable and the system allows for the minor variations which occur in the norms of daily life. But the inception of major changes cannot easily take place.

Among the bush Yir Yoront the only means of water transport is a light wood log to which they cling in their constant swimming of rivers, salt creeks, and tidal inlets. These natives know that tribes 45 miles further north have a bark canoe. They know these northern tribes can thus fish from mid-stream or out at sea, instead of clinging to the river banks and beaches, that they can cross coastal waters infested with crocodiles, sharks, sting rays, and Portuguese men-of-war without danger. They know the materials of which the canoe is made exist in their own environment. But they also know, as they say, that they do not have canoes because their own mythical ancestors did not have them. They assume that the canoe was part of the ancestral universe of the northern tribes. For them, then, the adoption of the canoe would not be simply a matter of learning a number of new behavioral skills for its manufacture and use. The adoption would require a much more difficult procedure; the acceptance by the entire society of a myth, either locally developed or borrowed, to explain the presence of the canoe, to associate it with some one or more of the several hundred mythical ancestors (and how decide which?), and thus establish it as an accepted totem of one of the clans ready to be used by the whole community. The Yir Yoront have not made this adjustment, and in this case we can only say that for the time being at least, ideas have won out over very real pressures for technological

change. In the elaborateness and explicitness of the totemic ideologies we seem to have one explanation for the notorious stability of Australian cultures under aboriginal conditions, an explanation which gives due weight to the importance of ideas in determining human behavior.

At a later stage of the contact situation, as has been indicated, phenomena unaccounted for by the totemic ideological system begin to appear with regularity and frequency and remain within the range of native experience. Accordingly, they cannot be ignored (as the "Battle of the Mitchell" was apparently ignored), and there is an attempt to assimilate them and account for them along the lines of principles inherent in the ideology. The bush Yir Yoront of the mid-thirties represent this stage of the acculturation process. Still trying to maintain their aboriginal definition of the situation, they accept European artifacts and behavior patterns, but fit them into their totemic system, assigning them to various clans on a par with original totems. There is an attempt to have the myth-making process keep up with these cultural changes so that the idea system can continue to support the rest of the culture. But analysis of overt behavior, of dreams, and of some of the new myths indicates that this arrangement is not entirely satisfactory, that the native clings to his totemic system with intellectual loyalty (lacking any substitute ideology), but that associated sentiments and values are weakened. His attitudes towards his own and towards European culture are found to be highly ambivalent.

All ghosts are totems of the Head-to-the-East Corpse clan, are thought of as white, and are of course closely associated with death. The white man, too, is closely associated with death, and he and all things pertaining to him are naturally assigned to the Corpse clan as totems. The steel axe, as a totem, was thus associated with the Corpse clan. But as an "axe," clearly linked with the stone axe, it is a totem of the Sunlit Cloud Iguana clan. Moreover, the steel axe, like most European goods, has no distinctive origin myth, nor are mythical ancestors associated with it. Can anyone, sitting in the shade of a *ti tree* one afternoon, create a myth to resolve this confusion? No one has, and the horrid suspicion arises as to the authenticity of the origin myths, which failed to take into account this vast new universe of the white man. The steel axe, shifting hopelessly between one clan and the other, is not only replacing the stone axe physically, but is hacking at the supports of the entire cultural system.

The aboriginals to the south of the Yir Yoront have clearly passed beyond this stage. They are engulfed by European culture, either by the mission or cattle station sub-cultures or, for some natives, by a baffling, paradoxical combination of both incongruent varieties. The totemic ideology can no longer support the intruding mass of foreign culture traits, and the myth-making process in its native form breaks down completely. Both intellectually and emotionally a saturation point is reached so that the myriad new traits which can neither be ignored nor any longer assimilated simply force the aboriginal to abandon his totemic system. With the collapse of this system of ideas, which is so closely related to so

many other aspects of the native culture, there follows an appallingly sudden and complete cultural disintegration, and a demoralization of the individual such as has seldom been recorded elsewhere. Without the support of a system of ideas well devised to provide cultural stability in a stable environment, but admittedly too rigid for the new realities pressing in from outside, native behavior and native sentiments and values are simply dead. Apathy reigns. The aboriginal has passed beyond the realm of any outsider who might wish to do him well or ill.

Returning from the broken natives huddled on cattle stations or on the fringes of frontier towns to the ambivalent but still lively aboriginals settled on the Mitchell River mission, we note one further devious result of the introduction of European artifacts. During a wet season stay at the mission, the anthropologist discovered that his supply of tooth paste was being depleted at an alarming rate. Investigation showed that it was being taken by old men for use in a new tooth paste cult. Old materials of magic having failed, new materials were being tried out in a malevolent magic directed towards the mission staff and some of the younger aboriginal men. Old males, largely ignored by the missionaries, were seeking to regain some of their lost power and prestige. This mild aggression proved hardly effective, but perhaps only because confidence in any kind of magic on the mission was by this time at a low ebb.

For the Yir Yoront still in the bush, a time could be predicted when personal deprivation and frustration in a confused culture would produce an overload of anxiety. The mythical past of the totemic ancestors would disappear as a guarantee of a present of which the future was supposed to be a stable continuation. Without the past, the present could be meaningless and the future unstructured and uncertain. Insecurities would be inevitable. Reaction to this stress might be some form of symbolic aggression, or withdrawal and apathy, or some more realistic approach. In such a situation the missionary with understanding of the processes going on about him would find his opportunity to introduce his forms of religion and to help create a new cultural universe.

* Dr. Sharp is Chairman, Department of Sociology and Anthropology, Cornell University. The field work on which this study is based was supported by the Australian National Research Council through the award of a Fellowship to the author in 1933-35. The material in its present form was prepared for the seminar "Case Studies in Applied Anthropology," which has been given at Cornell University each year since 1948. Many of the cases used in that seminar will appear in a handbook of case studies in applied anthropology which has been prepared by the Cornell Department of Sociology and Anthropology under an arrangement with the Russell Sage Foundation.

1. An account of this expedition from Amboina is given in R. Logan Jack, *Northmost Australia* (2 vols.), London, 1921, Vol. 1, pp. 18-57.

2. R. Logan Jack, *op. cit.*, pp. 298-335.

3. The best, although highly concentrated, summaries of totemism among the Yir Yoront and the other tribes of north Queensland will be found in R. Lauriston Sharp, "Tribes and Totemism in Northeast Australia," *Oceania*, Vol. 8, 1939, pp. 254-275 and 439-461 (especially pp. 268-275); also "Notes on Northeast Australian Totemism," in *Papers of the Peabody Museum of American Archaeology and Ethnology*, Vol. 20, *Studies in the Anthropology of Oceania and Asia*, Cambridge, 1943, pp. 66-71.

Why Traditional Societies Did Not Generate Self-Sustained Growth

W. W. Rostow

I

The premodern world is worth study for many reasons: to satisfy our curiosity; to extend our knowledge of the human condition and of human creativity; to help us understand the long shadows the premodern world cast on modern civilizations and cultures. For the limited purposes of this book, however, there is a narrow, almost mathematical reason for beginning with the premodern world: It did not generate self-sustained growth. If we can establish which factors were present and which absent in premodern as opposed to modern societies, we may help identify the specific elements that brought about the two centuries of self-sustained growth that began in the late eighteenth century. Was self-sustained growth blocked in premodern societies by a lack of interest in material things, religious beliefs, systems of slavery and feudalism, excessively narrow and impoverished markets, scientific ignorance, the lack of a commercial middle class, or what?

II

In one sense, the answer is simple and obvious: What distinguishes the world since the industrial revolution from the world before is the systematic, regular, and progressive application of science and technology to the production of goods and services. This is how and where I would draw the line in the famous debate whether the ancient world was "primitive" or "modern."¹ It was neither; it simply lacked a more or less regular flow of technological innovation. In the modern world, this flow has been an additional factor of production which is, so far as we know, infinitely expandable. The organized creativity of the human mind appears thus far to be of a productivity capable of compensating for limitations of land and natural resources. Thus for two centuries have societies, which organized themselves to exploit the technological stock and flow, fended off Ricardian diminishing returns to land and the Malthusian spectre. Only now have the rate of population increase, potential limits on natural resources, and threats to the environment

challenged the ~~efficacy~~ of the scientific and technological revolution, although science and technology will surely play a decisive part if man succeeds in coming to dynamic equilibrium with his physical environment.

The premodern world was not without scientists, inventors, and innovators, as well as philosophers, politicians, administrators, artists, and creative writers of great sophistication, but at any given period of time men and societies lived within technological limits, because innovation was sporadic. The ceiling could be lifted—and was—by elements of technological advance and innovation, but it could not be lifted regularly. Therefore, constraints operated on the levels of agricultural production, output and employment in urban industry, population that could be sustained, taxable income, and on the consequent capacity of governments to carry forward their objectives.

To assert these propositions, however, is to pose, not to answer, the question that is the main subject of this chapter; that is, why technological innovation was not a regular flow in the premodern world. Before getting at that central question, we may find it useful to consider how a relatively fixed technological ceiling caused the life of the premodern world to assume the form of cycles.

Consider first a model of what might be called a small-scale traditional society—say, an African tribe.

The small-scale traditional society is one whose economic life is bound quite rigorously by a relatively fixed area of arable or grazing land and by a narrow, or relatively stable, trading environment. It is mainly taken up with producing for local consumption. Its political and social organization is also tied intimately to the region and does not strain to enlarge the area of its political and economic power, although it may be drawn, from time to time, into offensive or defensive military activities on its borders. Production functions may change with chance discoveries or the occasional intrusion of knowledge from outside, such as knowledge of a new crop, but these are, essentially, one-time changes to which the society adjusts, moving to a new plateau.

The model, however, is not static; the small-scale traditional society does not ride smoothly along its plateaus. Within its existing production functions and acreage, population and income are likely to exhibit fluctuations of relatively short duration, determined by the size of the harvests and the incidence of disease and war. By routes of considerable complexity, these factors yield birth and death rates that, in turn, cause population to move in a roughly cyclical way, quite aside from a year-to-year sensitivity to the availability of food. The pattern that Heckscher was able to present for eighteenth-century Sweden is likely to prove general for small-scale traditional societies; that is, "Nature audited her accounts with a red pencil," with a rise in the death rate roughly, and fairly promptly, cancel-