

# SCIENTIFIC AMERICAN

415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

July 13, 1960

Dear Dr. Brew:

Thank you for your time on the telephone this afternoon. I shall repeat the substance of my request.

In September Scientific American will publish a special issue entitled "The Human Species." The table of contents for this issue is as follows:

1. "Tools and Human Evolution," by Sherwood L. Washburn, University of California.
2. "The Origins of Human Speech," by Charles F. Hockett, Cornell University.
3. "The Origins of Human Society," by Marshall D. Sahlins, University of Michigan.
4. "The Geographical Distribution of Man," by W. W. Howells, Harvard University.
5. "The Agricultural Revolution," by Robert J. Braidwood, University of Chicago.
6. "The Origin of Cities," by Robert M. Adams, University of Chicago.
7. "The Scientific-Industrial Revolution," by Herbert Butterfield, University of Cambridge.
8. "The Human Population," by Edward S. Deevey, Jr., Yale University.
9. "The Present Evolution of Man," by Theodosius Dobzhansky, Columbia University.

I should like to ask whether you and your colleagues would look favorably upon our using in this issue perhaps half a dozen of the Kalahari Bushman photographs in the Marshall



July 13, 1960

collection. These photographs would be used in conjunction with the article by Marshall D. Sahlins. Dr. Sahlins has written a general account of the origins of human society, and in this account has referred to various hunting-and-gathering peoples that are still extant.

We appreciate that there are many photographs of these various peoples that may be readily obtained. Among the things we have seen, however, the Marshall photographs are outstanding. It would do us credit to reproduce some of these photographs in Scientific American.

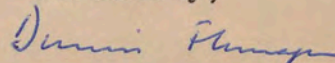
I should tell you that this request comes from us and not from Dr. Sahlins. We have had no reason to inform Dr. Sahlins of how we are proceeding in the matter. At this stage the discussion is strictly between you and us.

I might add that it is our custom to pay a fee for the privilege of using material in this way. Our payment for the number of pictures I have suggested would be \$500. We would, of course, specify in more detail the features of the Bushman society we should like to see illustrated. This will not necessarily mean a heavy job of selection from the Marshall collection. Indeed, we can specify what we should like to have entirely from those things that appeared in conjunction with the articles by John Marshall in Natural History.

I appreciate that your view that such photographs should appropriate be used only with material prepared by the people who made the pictures. In this case, however, we hope that you would make an exception. It would seem to me that the appropriate credit could be given to the pictures so as to recognize their value in themselves. Incidentally, we should have no objection to having our caption material reviewed by the appropriate person at the Peabody Museum.

It occurs to me that the whole matter might be expedited if I enclose a copy of the article by Dr. Sahlins. I shall call you on Friday to ascertain whether you think any progress can be made. Meantime I should like to thank you for your courtesy in the matter.

Cordially,



Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Cambridge, Massachusetts



# SCIENTIFIC AMERICAN

415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

70 with  
Captions  
sent from  
Nantucket  
by Lorna.  
7/25

PERMANENT MUSEUM  
RECEIVED

JUL 20 1960

ANS: \_\_\_\_\_

July 20, 1960

Dear Dr. Brew:

It was good of you to call me on Friday, and to let me know that you thought that the article by Marshall Sahlins was a good one. We are of course quite pleased that you will permit us to use some of the Marshall Bushman pictures in conjunction with the article.

I believe I indicated to you on the telephone that, by the use of these pictures, we hoped to illustrate certain of Sahlins' points about hunting-and-gathering societies. I shall list these points, and under each of them will refer to pictures in the two-part article by John Marshall in Natural History. I take it for granted that you have access to the article. These pictures would be more than adequate to our needs, but you indicated that you might substitute others as good or better. Of course we should have no objection to such substitution. The points are as follows.

1. The character of a primitive human band. It seems to us that this is clearly presented by the opening picture in Part I of the Marshall article. This picture is at the left of pages 292 and 293 of the article. The picture at the right on these two pages will also be useful in this connection.

2. The character of the primitive family group. There is no picture in the Natural History article that satisfactorily shows this. If there is such a picture in the Marshall collection, it would be most useful to us.

3. The division of labor: Hunting by men. The Natural History pictures that would be useful in this connection are in Part II of the Marshall article. They are as follows: pages 376 and 377 (both left and right); pages 378 and 379 (bottom), page 384, page 385 and page 391 (right).



4. The division of labor: Gathering by women. Here we refer, in Part I of the Marshall article, to the picture at the bottom of pages 294 and 295, and those on pages 308 and 309.

These are the main categories we have in mind. If it is agreeable to you, however, we should also like to illustrate the following subsidiary points. Living conditions, (the two photographs at the top of pages 294 and 295); the maternal care of children (the photograph at left on page 296 of Part I); marriage (the photograph at right on page 303 of Part I); grooming (top left on page 307 of Part I); activities of men (top of page 380 and bottom of page 381 in Part II).

I hope it goes without saying that, in addition to our fee for the privilege of using these pictures, we should like to cover any cost that may be involved in preparing prints. If you should prefer to have us make the prints, we should not object to receiving the negatives from you. I rather suspect, however, that you will want to keep the negatives in your possession.

In my original letter I suggested that we should like to use perhaps half a dozen of the Marshall pictures in conjunction with the Sahlins article. This is still our intention. Of course we have asked for a considerably larger number, but this is to give us some flexibility in solving the geometrical problems of arranging the pictures on our pages. I shall repeat that our payment for the use of the pictures will be \$500.

Would you let us know how you would like to have us handle the captions that will accompany the pictures? The material in Natural History would enable us to write captions for those particular pictures, but in the case of pictures that do not appear in Natural History, we will need some further identification from you. As I have indicated, we should like to give the appropriate acknowledgment to the source of the pictures, and we intend to check the captions with you before they go to press.

Finally, there is the matter of time. We would hope that you could put whatever material you plan to send us in



Dr. J. O. Brew

- 2 -

July 20, 1960

the mail by the night of Wednesday, July 27. If it seems that you will have any difficulty in doing this, I hope that you will not hesitate to give us a collect call so that we may discuss how we might change our plans at this end. Let me repeat how grateful we are for your courtesy in the matter.

Cordially,

*Dennis Flanagan*

Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Cambridge, Massachusetts



*Scientific Am.*

July 26, 1960.

Mr. Dennis Flanagan  
Scientific American  
415 Madison Avenue  
New York 17, N. Y.

Dear Mr. Flanagan:

Dr. Brew told us of your request for photographs from our studies of Bushmen to be used to illustrate "The Origins of Human Society" by Marshall D. Sahlins in a forthcoming issue of the Scientific American. We are very glad to have the photographs used in this way.

2

We are sending, under separate covers today, 80 pictures showing Bushman life from the collection in the Peabody Museum and hope you will find in them what you need. There are many more black and white photographs. The selection of the 80 we are sending was made in considerable haste because of pressures of the moment. Please ask us to look further if there is some point you wish better covered.

A little information is attached to or written on the back of each photograph to give the person who writes the captions a clue. Some of the information is for our own purposes of identifying the people, etc. and may be disregarded. Also the Bushman clicks (symbolized by /, !, //, #) may be disregarded in writing the captions.

If more information is wanted, ask Dr. Brew and he may either supply it or refer the questions to us.

Of the pictures which you mentioned from the Natural History article by John Marshall, one print is missing. It is the !Kung Bushman throwing a spear, published in the issue of August-September, 1958, p. 377. We shall have another print made and send it to you.

*A list of the numbers is enclosed*

Sincerely yours,

Lorna Marshall.

Mrs. Laurence K. Marshall  
4 Bryant Street  
Cambridge, Mass.

*P.S. Three large glossy prints are being sent in a separate envelope, the others in a box.*



July 23, 1960.

80 Photographs  
from the Marshall Bushman expeditions  
from Peabody Museum, Harvard University.

1952-1953

g.p.\* 1X-13  
1X-15  
1X-23

207-6  
223-3

X-9

1951

X-22

305-18

g.p. X-36

1955

10-2

55-38P-13

10-36

" 84P-19

10-12

" 84P-36

20-6

" 105T-13

g.p. 20-9

" 109P-4

g.p. 21-1

" 109P-5

21-12

" 109P-22

g.p. 26-8

" 110T-15

g.p. 27-9

" 113P-24

27-11

" 114P-3

44-7

" 114P-12

g.p. 49-12

" 114P-15

g.p. 50-2

" 114P-17

53-4

" 114P-30

g.p. 54-6

" 115P-34

61-1

" 116P-13

cf.

69-3

" 116P-14

G.P. 84-5

Big glossy

" 116P-23

84-6

" 116P-26

100-8

" 117P-31

100-10

" 118P-8

g.p. 127-5

" 118P-11

128-9

" 118P-20

g.p. 130-7

" 119P-32

132-5

" 119P-37

133-6

" 122P-25

133-11

" 123P-21

136-2

" 124P-30

136-11

" 126P-30

138-1

" 127P-2

g.p. 138-4

" 127P-15

139-6

" 129P-19

140-1

" ?

g.p. 149-2

g.p. 158-8

g.p. 161-8

g.p. 161-10

g.p. 161-25

Will look up number.  
Oukwane, a/Gikwe  
Bushman, playing music  
on his bow.

\* g.p. means glossy print



RECEIVED

JUL 27 1960

ANS: N6

SCIENTIFIC  
AMERICAN

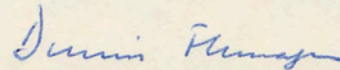
415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

July 26, 1960

Dear Dr. Brew:

Those photographs have arrived from you and Mrs. Marshall, and we are absolutely delighted with them. When we have made our choice, in a week or so, I shall be in touch with you again.

Cordially,



Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Divinity Avenue  
Cambridge 38, Massachusetts



# SCIENTIFIC AMERICAN

415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

*file*  
*S. W. Africa*  
*S. America*

PEABODY MUSEUM  
RECEIVED

AUG 4 1960

August 3, 1960

ANS:

Dear Dr. Brew:

I enclose engraver's proofs of the Marshall photographs we should like to use in conjunction with the article by Marshall D. Sahlins. I also enclose the captions that will accompany the illustrations. The captions are keyed to the illustrations by number. Let me call your attention to the fact that the first caption is No. 4; Nos. 1, 2 and 3 are the headline, subheading and byline.

We should be most grateful if you and your colleagues would look these things over. I hope you will feel completely free to make corrections and suggestions. We will need to have these from you, however, by next Tuesday (August 9). If it seems that you will have any difficulty in making this deadline by mail, I hope you will not hesitate to give us your comments by means of a collect telephone call. Even if the corrections are extensive, these might be handled by having your secretary dictate them to mine.

Cordially,

*Dennis Flanagan*

Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Divinity Avenue  
Cambridge 38, Massachusetts



PEABODY MUSEUM  
OF  
ARCHAEOLOGY AND ETHNOLOGY  
HARVARD UNIVERSITY  
CAMBRIDGE 38, MASSACHUSETTS, U.S.A.

August 5, 1960

Mr. Dennis Flanagan, Editor  
Scientific American  
415 Madison Avenue  
New York 17, New York

Dear Mr. Flanagan:

I return to you the draft copy of captions for the Marshall pictures and enclose suggested revisions made by Mrs. Marshall and me.

Will you please put underneath each photograph:

"Photo by Peabody Museum, Harvard University."

Everyone here is impressed by the speed with which you worked our photographs over and by the high order of understanding indicated in the captions.

If you have any other questions, do not hesitate to call on us.

Sincerely yours,

J. O. Brew, Director

Enclosures



August 5, 1960

Corrections and suggested changes in captions of Bushman photographs for Sahlins article.

Caption 1: Please add to last lines as follows:

"Photographs on these and next four pages were made by the seven Peabody Museum of Harvard University South West Africa expeditions led by Laurence K. Marshall, 1950-1959. The 1952 and 1956 *and subsequent* 1956 expeditions were jointly sponsored by the Smithsonian Institution."

Caption 2: Correction - lines 1 and 2 should read:

"...sons with their wives..."

Because there are Kung Bushmen in other places we should not say that the Kung nation consists of about 1,000, implying it is the whole, but specify that this is the population of this particular region. In this caption the last 2 lines give one the impression that the bands may move all over the region to obtain food although they move as separate units. The bands visit freely but each possesses the resources of water and food only within its own territory. I am referring to their own social organization. The government of South West Africa has no part in making this territorial division. If you want to put in some of this information and it does not make the caption too long, I suggest saying something to the following effect:

"About 1,000 Kung live in the 10,000 square miles of the Nyae Nyae region of the Kalahari Basin. They are grouped by kinship ties into 28 separate bands



each of which possesses rights, according to Kung tradition, to gather the wild plant foods, to hunt and to take water from the waterhole within its own territory. These Kung intermarry and the bands visit each other throughout the region."

Caption 4: Because the beetle grub is by far the most important factor, should we change the caption and say as the second sentence:

"the poison comes from the grub of a beetle sometimes mixed with a poison tree pod or a root."

Caption 6: Please change to read as follows:

"BUILDING FIRES is the duty of Kung men. Since women, however, are the gatherers, they also collect wood for the fires, although in this case the men quite often help them."



Submitted by Lorna Marshall

Corrections and suggested changes in captions of Bushman photographs for Sahlins article.

Caption 1: Please add to last lines as follows:

"  
by the Marshall expeditions which were sponsored  
by the Peabody Museum of Harvard University and the  
the Smithsonian Institution. Permission to use the  
photograph is given by the Peabody Museum."  
"

Caption 2: Correction - lines 1 and 2 should read:

"...sons with their wives ..."

Because there are Kung Bushmen in other places we should not say that the Kung nation consists of about 1,000, implying it is the whole, but specify that this is the population of this particular region. In this caption the last 2 lines give one the impression that the bands may move all over the region to obtain food although they move as separate units. The bands visit freely but each possesses the resources of water and food only within its own territory. I am referring to their own social organization. The government of South West Africa has no part in making this territorial division. If you want to put in some of this information and it does not make the caption too long, I suggest saying something to the following effect:

"About 1,000 Kung live in the 10,000 square miles  
of the Nyae Nyae region of the Kalahari Basin. They  
They are grouped by kinship ties into 28 separate bands  
each of which possesses rights, according to Kung  
tradition, to gather the wild plant foods, to hunt  
and to take water from the waterhole within its own



territory. These Kung intermarry and the bands visit each other throughout the region."

Caption 4: Because the beetle grub is by far the most important factor, should we change the caption and say as the second sentence:

"the poison comes from the grub of a beetle sometimes mixed with a poison tree pod or a root."

Caption 6: Wood is gathered by both men and women. It is rather more the work of women in this society, associated with gathering activities rather than with fire-making. I suggest omitting or changing the last sentence of this caption.

Lorna Marshall

August 5, 1960



Make clear the difference between the caption itself and my note about it by indenting caption clearly. <sup>There is no need</sup> to underline it all is there? i.e.

## Corrections and suggested changes in captions of Bushman photographs in Sahlins articles

Caption 1

~~the~~ <sup>Please</sup> Add to last lines as follows:

by the Marshall expeditions which were sponsored by the Peabody Museum, Harvard University and the Smithsonian Institution. Permission to use the photographs is given by the Peabody Museum.

Caption 2

Correction - lines 1 & 2 should read

3 <sup>sons</sup> ~~men~~ <sup>with their wives</sup> ~~lines~~

Because there are Kung Bushmen in other places we should not say that the Kung nation as a whole consists of about 1000, implying it is the whole, but specify that this is the population of this particular region. In this caption the last 2 lines gives me the impression that the bands may move all over the region in their to obtain food although they move as separate units. The bands



visit freely but each possesses the rights resources of water and food only within its own territory.

I am referring to their own social organization. The government of S.W.A. ~~has no part in making~~ ~~has not made~~ this territorial division.

If you want to put in some of this information and it does not make the caption too long, I suggest setting something to the following effect:

About 1000 Kung live in the 10,000 square miles of the Nyae Nyae region of the Kalahari Basin. They are grouped by kinship ties into 28 separate bands each of which possesses rights, according to Kung tradition, to gather the wild plant foods, to hunt and to take water from the water hole within its own territory. These Kung intermarry and the bands visit each other throughout the region.



Caption 4

Because the beetle grub is by far the most important factor, should we change the caption order and say as the 2<sup>nd</sup> sentence:

~~The most common is made of beetle grubs mixed with tree pods.~~  
The poison comes from the grub of a beetle sometimes mixed with a poison tree pod or a root.

Caption 6

Wood is gathered by both men and women. It is rather more the work of women in this society, associated ~~more~~ <sup>rather</sup> with gathering activities than with fire-making. I suggest omitting or changing the last sentence of this caption.

Type Name: No need to sign it!

Lorna Marshall



S.W.A  
Sc. Amer.

August 24, 1960

Mr. Dennis Flanagan  
Scientific American  
415 Madison Avenue  
New York 17, New York

Dear Mr. Flanagan:

Thank you for your note of August 18 enclosing your check in payment for the use of the South West Africa Expedition photographs.

Everyone up here has been impressed by the efficiency with which you and your staff operate.

Sincerely yours,

J. O. Brew, Director



**SCIENTIFIC  
AMERICAN**

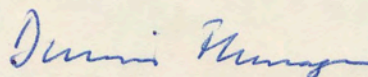
415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

August 18, 1960

Dear Dr. Brew:

I enclose our check in payment for the privilege of using the Marshall photographs. In a week or so we will be able to send you some copies of the issue in which the photographs appear. The photographs themselves will also be along shortly.

Cordially,



Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Cambridge 38, Massachusetts

Deposited - Pm



Sc. Amer.

August 26, 1960

Mr. Dennis Flanagan  
Scientific American  
415 Madison Avenue  
New York 17, New York

Dear Mr. Flanagan:

Thank you for sending me the two advance copies of the special September issue of the Scientific American. It is a very fine issue indeed and should have a very important effect.

Our Bushman pictures look fine and all of the illustrations throughout the issue seem to me to be good.

Congratulations.

Sincerely yours,

J. O. Brew, Director



# SCIENTIFIC AMERICAN

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AUG 28 1960

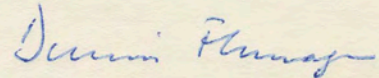
ANS: \_\_\_\_\_

August 25, 1960

Dear Dr. Brew:

I enclose two copies of our September issue, in which, of course, we have used the Marshall photographs. You will find them on pages 76 through 87.

Cordially,



Dennis Flanagan  
Editor

DF:ap

Dr. J. O. Brew  
Peabody Museum  
Harvard University  
Cambridge 38, Massachusetts



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AFTER DEC., 1960

# SCIENTIFIC AMERICAN

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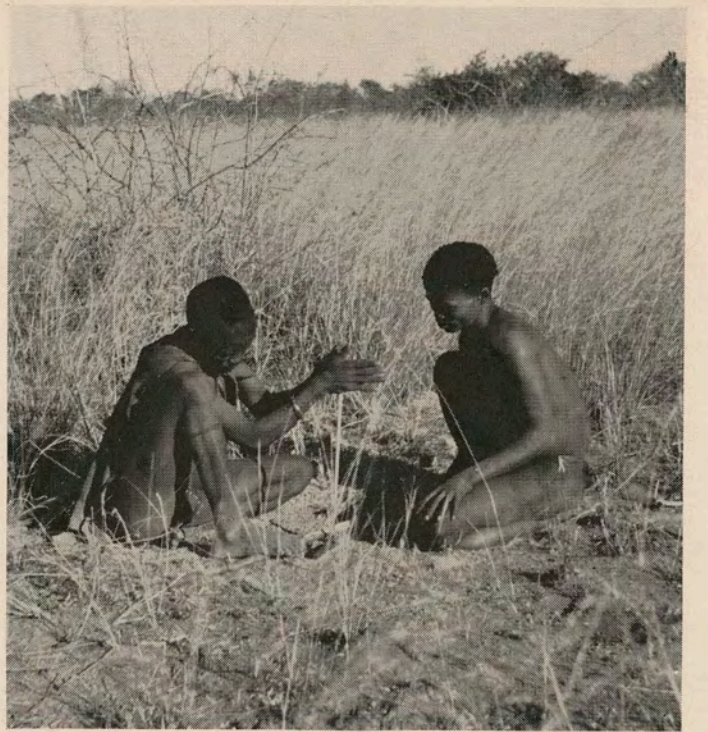
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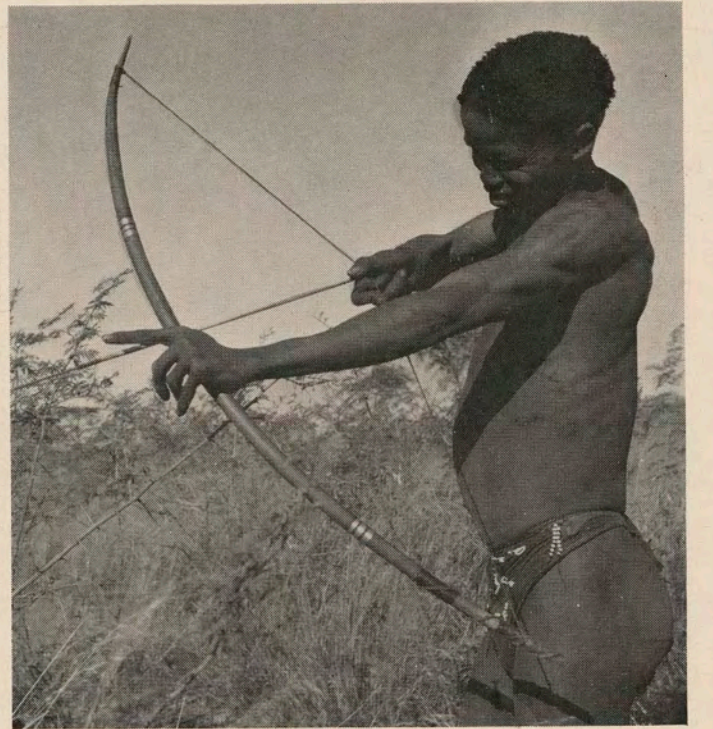
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No. 27

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AFTER DEC., 1960

# SCIENTIFIC AMERICAN

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9



## On the Origins of Human Society

Marshall D. Sahlins

A discussion of the origins of human society must be an exercise in inference, not in observation. We speak of events that occurred a million years ago, in a place or places not specifically determined, under circumstances known only by informed speculation. But as a physicist can envision the frictionless motion of matter by approaching this condition experimentally, so an anthropologist can deduce -- with as yet less precision -- the original state of human society by approaching it comparatively. This means juxtaposing the social life of man's closest relatives, monkeys and apes, on the one side, with the organization of known primitive societies on the other. The gap that remains is then bridged by the mind.

No matter how brilliant the engineering, this intellectual bridge will be crude because of the limitations of empirical materials. No living primate can be directly equated with man's actual simian ancestor; therefore, only generalized social traits of contemporary primates can be selected for historical comparisons, not particular, specialized ones. Moreover, one must rely primarily on the few field reports on free-ranging groups, most notably C. R. Carpenter's studies of New World howler and spider monkeys, of the rhesus colony transplanted to Puerto Rico, and of the gibbon, Nissen's chimpanzee data, and some special short reports on the Japanese monkey. We also have the pioneer studies of Sir Solly Zuckerman, mostly of zoo colonies of baboons, and a



body of social-psychological experiments on captive animals. The social behavior of anthropoid apes commands foremost attention because the apes are most closely related to man; Old World monkeys and New World monkeys are respectively more distant relatives.

On the human side, the nearest contemporary approximations to the original cultural condition are societies of hunters and gatherers, preagricultural peoples exacting a meagre livelihood from wild food resources. This cultural order dominated the Old Stone Age (Paleolithic), an archaeological period extending from about one million to 10 to 15 thousand years ago. The assumption one makes in equating modern hunters and gatherers with the actual protagonists of the Stone Age is rationalized by the general regularities -- again, not detailed similarities -- in social organization that typically occur among peoples with similar technologies. Confidence in this comparative procedure is also fortified by the remarkable social congruence observed among contemporary hunters and gatherers themselves, despite that they are at least as historically separated from each other as the Stone Age is distant from modern times. The best known hunters and gatherers include the Australian Aborigines, the Bushmen of South Africa, the Andaman Islanders, the Shoshoni of the American Great Basin, the Eskimo, and pygmy groups in Africa, Malaya and the Philippines.

#### Culture and Sociability

In the context of a derogatory discussion of American Indians a historian was once led to remark, in exasperation: "There is said to be a great deal of human nature in mankind." The state-



ment is curious, perhaps meaningless; but most important, it is skeptical. Was the man prepared to argue that the way people act is often not an expression of human nature? This is a revolutionary idea: just consider the eternal scholarly search for the holy grail of human nature, as if it were the single key to social scientific revelation. Equally revolutionary is the implication for the study of early phases of human society. If human social life is not the simple expression of human nature, then we must be prepared to find a quantum difference between even the most rudimentary human society and the most advanced subhuman primate one. We would have to suppose that human society was born in opposition to man's primate character, that its emergence involved some suppression, rather than direct expression, of human nature.

Thoughtful comparison of primate sociology and the findings of anthropological research transforms this supposition into inescapable conclusion. *While the social behavior of monkeys and apes is often not innate, it is clearly* ~~The social life of monkeys and apes clearly~~ *is* product of their nature, of animal needs and reactions, physiological processes and <sup>direct</sup> psychological responses. <sup>life therefore</sup> ~~Social behavior~~ *here* varies directly with the organic constitution of the individual and the horde. In an unchanging environment the social characteristics of a given subhuman primate species are unchanging, unless or until the species is itself organically transformed. The same cannot be said about human social arrangements. We are all one species, but our social orders grow and diversify -- even within a constant environment -- and they do so quite apart from the minor biological (racial) differences that develop among different peoples. The human social order is super<sup>organic</sup>; we live in cultural societies.



Another curious remark, this time by a famous Frenchman, will help to illustrate the dominance of culture in human affairs. "That which distinguishes man from the beast," he said, "is drinking without being thirsty and making love in all seasons." The last is not an exclusively human trait -- a friend suggests that the remark was really a mistaken attempt to distinguish Frenchmen from all other species -- but man alone will drink when not particularly thirsty, as at cocktail parties or in taking medicine. Moreover, he can marry and make love without the stimulus of sexual attraction, consider people as kinsmen where there is no certainty of genetic relationship, prostrate himself before another who is physically weaker, or even before divinities possessed of no substantial qualities whatsoever. Humans live not merely in a biological world, but in a symbolic, superorganic one of their own making. Human societies, rather than taking form from human drives, are ordered by rules, constitutions, moral precepts, and by cultural concepts such as "citizen," "corporal," "motherhood," "commissar," "corporation," "knighthood" and "Englishman."

This liberation of human society from direct biological control was its great evolutionary strength. Culture saved man in his earliest days, clothed him, fed him, and comforted him. In these times it has become possible to pile form on form in great social edifices which undertake to secure the survival of millions of people. Yet the remarkable aspect of culture's usurpation of the evolutionary task from biology was that in so doing it was forced to oppose man's primate nature on many fronts, and

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to subdue it. It is an extraordinary fact that primate urges often become not <sup>the</sup> ~~the~~ secure foundation of human social life, but a source of weakness in it

The decisive battle between early culture and human nature must have been waged on the field of primate sexuality. The powerful social magnet of sex was the major impetus to subhuman primate sociability. This has long been recognized, but it was Zuckerman in particular -- whose attention to the matter developed, it must be admitted, from observation of the almost depraved behavior of baboons in zoos -- who made sexuality the key issue of primate sociology. Subhuman primates, Zuckerman noted, are prepared to mate at all seasons, and although females show heightened receptivity midway through the menstrual cycle, they are often capable of <sup>sexual activity</sup> ~~mating~~ at other times. Most significantly for the assessment of its historic role, year-round sex in higher primates is associated with year-round heterosexual social life; among other mammals sexual activity, and likewise heterosexual society, is typically confined to a comparatively brief breeding season.

To agree with Zuckerman is not to deny -- as some have thought -- that there are other important social activities going on in the subhuman primate horde, or that group existence confers other advantages, such as defense against predation, transcending the gratification of erotic urges. The assertion that sex is the basis of sociability is evolutionary, not simply functional. In the evolutionary perspective, the intense, long-term sexuality of the primate individual is the historic comple-



ment of the advantages of horde life. Those conditions which favored permanent heterosexual groupings among primates evidently selected for sexuality as the individual physiological mechanism of gregariousness. Individual sexuality and the <sup>a</sup>adaptive values of collective existence are two sides of the same evolutionary coin.

Nor, in considering subhuman primate sexuality, should attention be confined to coitus. The evidence grows that certain Old World monkeys -- the closely related baboons, rhesus and Japanese monkey -- do have seasonal declines in breeding without cessation of horde life. But sex enters into subhuman primate social relations in a variety of forms, and heterosexual copulation is only one. Sexual mounting is involved in the establishment of dominance, which grows out of chronic competition for food, mates, and other desirable objects. It is a common element of youthful play -- indeed the female higher primate is unique among female mammals in displaying the adult sexual pattern prior to puberty. The familiar primate ~~trait~~ <sup>trait</sup> of mutual grooming, pulling and licking out parasites and other objects from the coat of another animal -- not necessarily of the opposite sex -- often appears to be a secondary sexual activity. Sex is more than a force of attraction between adult males and females; it also operates among the young and between individuals of the same sex. Promiscuity is not an accurate term for it; it is indiscriminate. And while we might deem some of the forms perversions, to a monkey or ape they are all just sociable.



Sex is not an unmitigated social blessing for primates. Like other magnets, it has an opposite pole. Competition over partners, for example, can lead to vicious, even fatal, strife. It was this side of primate sexuality that forced early culture to curb and repress it. The comparatively puny, awkward human primate, in a life and death economic struggle with nature, could not also afford the luxury of a social struggle. Cooperation, not competition, was essential. Culture thus brought primate sexuality under control, more than that, sex was made subject to regulations, such as the incest tabu, which effectively enlisted it in the service of cooperative kin relations. Among subhuman primates, sex had organized society; the customs of hunters and gatherers testify eloquently that now society was to organize sex -- in the interest of economic adaptation.

The evolution of the physiology of sex itself provided a basis for early culture's successful reorganization of social life. As Professor Frank Beach has pointed out, there is a progressive emancipation of sexuality from hormonal control running through the primate order. This trend culminates in mankind, among whom sex is more controlled by the intellect, the cerebral cortex, than by glands. Thus it becomes possible to regulate sex by moral rules, to subordinate it to higher, collective ends. The consequent repression of primate sexuality in primitive as well as more developed societies has taken striking forms. In every human society sex is hedged by tabus: on time, place -- the human animal alone demands privacy -- on the



sex and age of possible partners, on reference to sex in certain social contexts, on exposing the genitalia (particularly for females), and on cohabitation during culturally important activities which range, in different societies, from war and ceremony ~~through~~<sup>to</sup> brewing beer.

The design of many of these tabus is obvious: the disconcerting fascination of sex and its potentially disruptive consequences are to be eliminated from vital social activities. The same might be said for the universal tabu on incest. The incest tabu is a guardian of harmony and solidarity within the family, a critical matter for hunters and gatherers, for among them the family ~~was~~<sup>is</sup> the fundamental economic as well as social group. At the same time, the injunction on sexual relations and marriage among close relatives necessarily forces different families into alliance. The incest tabu extends kinship and mutual aid in one way while protecting these in another. E. B. Tylor's famous passage pointing out the importance of the incest tabu for sheer survival is worth repeating here: "Again and again in the world's history, savage tribes must have had plainly before their minds the simple practical alternative between marrying-out and being killed out."

By way of aside, it is notable that the repression of sex in favor of other ends was a battle which, while won for the species a million years ago, is still joined in every individual to this day. It is the eternal Freudian conflict between the self-seeking, sexually inclined id and the socially-conscious superego. Just as in the embryological development of the



individual traces of former evolutionary stages of the race are perceived, so in his psychological development there is a recreation of human social history, a conflict between man as a primate (Original Sin, if one likes) and man as a cultural being (Salvation). The individual sublimation of sexual energy (libido) in socially approved creative activity also re-enacts, as in one of Freud's <sup>famous</sup> allegories, the development of culture in the first place.

Before comparing primate and primitive societies in detail to discover the effects of the cultural reorganization of society, it is well to clear up a possible source of confusion. It has been said that "kinship," with its economic aspect of cooperation, became the plan for primitive human society. "Kinship" here means a cultural form, not a biological fact. Apes, of course, are genetically related to each other. But apes do not and cannot name and distinguish kinsmen, and do not use kinship as a symbolic organization of behavior. On the other hand, cultural kinship has virtually nothing to do with biological connection. No one, for example, can be absolutely certain who his father is in a genetic sense, but in all societies fatherhood -- not to mention paternal relatives in general -- is a fundamental social status. Almost all human societies adhere, implicitly or explicitly, to the dictum of the Napoleonic code in this respect: the father of the child is the husband of the mother. And so it goes with all human kin relations; they are cultural inventions.

Many hunters and gatherers carry kinship to an extreme curious to us. By a device technically known as "classificatory



kinship," they ignore genealogical differences between collateral and lineal kin at certain points, lumping them terminologically and in social behavior. Thus my father's brother may be "father" to me, and I act accordingly. Close kinship may be extended indefinitely by the same logic: my father's brother's son is my "brother," my grandfather's brother is my "grandfather," his son is my "father," his son my "brother," and so on. By cultural forms as these, the whole of society ~~may~~<sup>can</sup> be likened to family relations and all of social behavior controlled by a superorganic system of kinship. As one observer remarked of the Australians: "it is impossible for an Australian native to have anything whatever to do with anyone who is not his relative, of one kind or another, near or distant."

#### The Primate Horde and the Primitive Band

The subhuman primate horde varies in size among different species, ranging from groups in the hundreds among certain Old World monkeys to the much smaller groups, often under ten, characteristic of anthropoid apes. The horde may stay together all the time, or it may scatter during daytime feeding into packs of various sorts -- mate groups of males and females, females with young, males alone -- to come together again at night resting places. Monkeys seem inclined to scatter in this way more than apes.

There are typically more adult females than adult males within the horde; sometimes, as for the howler monkey, three times as many. This may be in part due to a faster maturation rate for females. In another part it reflects the elimination



of some males in the course of competition for mates. These males are not necessarily killed. They may lead a solitary life outside <sup>or on the fringes of</sup> the horde, attempting all the while to attach themselves to some group and acquire sexual partners. The solitary male simultaneously epitomizes the attractive and repulsive poles of primate sexuality.

Sex is also an organizing force within the horde, which is often a single mate group. But there seems to be a progressive development in the primate order from promiscuous mating to the formation of exclusive, permanent heterosexual partnerships between specific animals. Among certain New World monkeys, females with their young comprise a separate pack within the horde, and only when a female is in heat does she forsake this group for males. Yet she does not become attached to a specific male, but wearing them out in turn, goes from one to another. The Old World rhesus horde and mate relations are similar except that a receptive female is taken over primarily by dominant males. This is a step in the direction of exclusiveness: the most dominant males possess all females in heat, while subordinates must go without when there are not enough to go around. In the anthropoid gibbon, the trend toward exclusiveness is fully developed: the entire horde is typically composed of an adult male, a permanent female consort and their young. As yet it is not safe to state unequivocally that the progressive change illustrated here by selected cases runs through the entire primate order. It is, however, consistent with the progressive emancipation of sex from hormonal control noted by Beach; this would provide the physio-



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logical mechanism for increasingly exclusive matings. It does seem that the higher subhuman primates presage the human family more than the lower. Yet, as shall be seen, it is not so much sex as it is economic collaboration that organizes and sustains the human family.

The primate horde is practically a closed social group. Each horde has a territory and defends its ground (or trees) against encroachment by others of its species. The typical relation between adjacent hordes is that of enmity, especially if food is short. Their borders are points of social deflection, and contact between neighbors is ~~at least~~ <sup>often</sup> marked by belligerent vocal cries, if it does not erupt into fatal violence. Subhuman primates lack means for spanning horde territories with sociable relations.

Territorial relations among neighboring human hunting and gathering bands (a term used technically to refer to the cohesive local group) offer an instructive contrast. The band territory is never exclusive. Individuals and families may shift from group to group, especially in those habitats where food resources fluctuate year to year and place to place. The Eskimo are a classic example: the vagaries of seal and caribou movements force families to join now with some people, now with another group. Even where resources are more regular and predictable, and band membership is also, as among the Australians, temporary food scarcity in one locale can often be alleviated by hunting in the territory of a neighboring band. Among subhuman primates, food scarcity leads to hostility among adjacent hordes; it leads



to hospitality, however, among adjacent human bands. And besides the territorial freedom induced by economic necessity among primitives, there is normally a great deal of interband hospitality and visiting undertaken for purely social and ceremonial reasons. Although bands remain autonomous politically, a general notion of tribalism, based on similarity in language and custom and on social collaboration, develops among neighboring groups.

It was kinship and the cultural regulation of sex and marriage that thus broadened the social sphere of hunters and gatherers. Among all band peoples, marriage with close relatives is forbidden, while marriage outside the band is at least preferred and sometimes morally prescribed. The kin ties thereby created become social pathways of mutual aid and solidarity connecting band to band. These interband relations confer a considerable adaptive advantage in comparison with the territorial exclusiveness of subhuman primates. The easy movement of food and other strategic goods across local borders permits primitives to live in more variable habitats than subhuman primates. It does not seem unwarranted to assert that the human capacity to extend kinship was a necessary social condition for the deployment of early man over the <sup>e</sup>grater part of the planet.

Another implication of interband kinship deserves emphasis: warfare is very limited among hunters and gatherers. Indeed many are reported to find the idea of war incomprehensible. In any case a massive military effort would be difficult to sustain for technical and logistic reasons, but war is even further



inhibited by the spread of a social relation, kinship, which in primitive society is often a synonym for "peace." Thomas Hobbes' famous fantasy of a war of every man against every man in the natural state could not be further from the truth. War increases in intensity, bloodiness, duration and significance for social survival through the evolution of culture, reaching its culmination in modern civilization. Paradoxically that which is popularly considered the epitome of human nature, cruel belligerence, reaches its zenith in the human condition most removed from the pristine. By contrast, it has been remarked of the Bushman that "it is not in their nature to fight."

Let us consider the internal social order of the hunting and gathering band. The band is a grouping of related families, on the average 20 to 50 people altogether. The precise kin structure of the local group varies in different ecological circumstances. Where resources are regular enough to give the band a stable territorial focus, the group resembles an enlarged patriarchal family, as among most Australians. The men take wives from other groups -- and give sisters to other bands -- but maintain residence in their own locale after marriage. Where resources fluctuate markedly, such formal rules and organization are not sustained, as families shift from band to band over the years. But even then the several families are typically linked by a chain of kinship, one to the other. The band kin order, whatever its particular shape, not only regulates economic life but is a kind of political system. Bands lack true government, a political state, and instead of a code of law the rules of



good order are synonymous with customs of proper behavior toward kinsmen. In certain ways this system of etiquette is even more effective than law. A breach of etiquette at least cannot go undetected, and punishment -- dislike, avoidance, gossip, and ridicule -- follows hard upon offense.

The only permanent organization within the band is the family. The primitive human family, unlike the subhuman primate mate group, is not based simply on sexual attraction. Sex is easily had in many band societies, both before and beside marriage, but this alone ~~not~~ <sup>does not</sup> necessarily create ~~or~~ <sup>or</sup> destroy the family. The incest tabu itself implies that the human family cannot be the social outcome of erotic urges. Moreover, sexual rights to a wife may even be waived in the interest of securing friendly relations with other men, as in the famous Eskimo custom of "wife lending." This is, incidentally, only one ~~specific~~ <sup>cultural</sup> device among many for enlisting marriage and sex in the service of the creation of wide social alliance. In remarkable contrast to subhuman primate unions, often created and maintained in violence, marriage is, in band society, a means of securing peace. We do not say that quarrels over women, adultery, and the like are nonexistent among primitive <sup>peoples</sup>, as that would be far from accurate. But such actions are explicitly considered antisocial, whereas among monkeys and apes comparable events create the social order.

Marriage and the family are institutions too important in primitive life to be built on the fragile, shifting foundations of "love." The family is the decisive economic institution of society; it is to the hunter and gatherer what the manor was to



feudal Europe, or the corporate-factory system is to capitalism -- the productive organization. The primary division of labor in band economy is that between men and women: the men typically hunt and make weapons, the women gather wild plants and take care of the home and children. Marriage then is an alliance between the two essential social elements of production. These factors complement each other -- the Eskimo say "a man is the hunter his wife makes him" -- and they lock their possessors in enduring marital and familial relations. Many anthropologists have testified that in the minds of the natives themselves the ability to cook and sew or to hunt are much more important than beauty in a prospective spouse.

The economic aspect of primitive marriage is responsible for many of its specific characteristics. For one thing it is the normal adult state; one cannot economically afford to remain single. Hence the solitary subhuman primate male has no counterpart in the primitive band. The number of spouses is, however, limited by economic considerations among primitives. An ape has as many mates as he can get and defend for himself, a man as many as he can support by himself. Marriage is usually monogamous, therefore, among hunters and gatherers, although there are normally no rules against polygyny. The development of culture, particularly the emergence of an economic division of labor by sex, dramatically ~~al~~tered human mating and differentiated the human family from its nearest primate analogues.



### Dominance and Cooperation

Dominance and subordination are characteristic subhuman primate social relations. "Pecking orders" develop from competition for mates and perhaps food or other desirable objects, and Carpenter observed that such competition is chronic "in every known typical grouping of monkeys and apes." Repeated victory secures future privileges for a dominant animal; subordinates, by conditioned response, withdraw from or yield access to anything worth having. It becomes a general rule, as Nissen wrote, "that the bigger animal gets most of the food, the stronger male most of the females."

Conflict in the latter sphere establishes a hierarchy among the males in particular. In the laboratory, dominance among paired animals of both or either of the sexes is easily determined by <sup>introducing</sup> ~~introducing~~ food pellets to which there is limited access and noting which one regularly appropriates them. In most species males tend to dominate over females in such tests, although for certain anthropoid apes, notably the chimp and the gibbon, the reverse can occur. A difference in what has been called "dominance quality" seems to arise between primate suborders: in New World monkeys, dominance is not well marked, "tenuous"; in Old World monkeys it may become "rough" and "brutal;" in apes, while clearly apparent, it is not as violently established or sustained. In all species, however, dominance affects a variety of social activities, including play, grooming, and interhorde relations, as well as sex and feeding. And since subordinates "keep their distance," dominance even influences the spatial disposition, literally "the place," of members of the group.



Compared both to subhuman primate antecedents and to subsequent cultural developments, dominance is at its nadir among primitive hunters and gatherers. Culture is the "oldest equalizer." It is quite difficult, for one thing, to enjoy supremacy on the basis of sheer strength among animals capable of symbolic communication; the weak can always collectively connive to overthrow the strong. On the other side, political and economic means of tyranny, <sup>cultural means,</sup> remain underdeveloped among hunters and gatherers.

There is some evolutionary continuity in dominance behavior from primate to primitive: leadership, such as it is, falls to men among hunters and gatherers. Yet the supremacy of men in the band as a whole does not necessarily mean the abject subordination of women in the home. **Once more the weapon of articulate speech must be reckoned with; "a census would certainly show a higher percentage of henpecked husbands among the Eskimos than in a civilized country (except, perhaps, the United States!): most Eskimos have a deeply rooted respect for their wives' tongues"** (the writer quoted, Birket-Smith, is a Dane).

The men who lead the band are those who are wiser and older. The elders, however, are not respected for their ability to commandeer limited supplies of desired goods. To the contrary, generosity is a necessary qualification for prestige; the man who does most for the band, who sacrifices most, will be most loved and heeded by the rest. The test of status among hunters and gatherers is usually the reverse of that among monkeys and apes; it is a matter of who gives away, not who takes away.



A second qualification for leadership is knowledge, knowledge of ritual, tradition, game movements, terrain, and the other things that control social life. This is why older men are respected. In a stable society they know more than others, <sup>and</sup> to be "old-fashioned" is a great virtue.

Knowledge of itself breeds little power. The headmen of a band can rule only by advice, not by fiat. As a Congo pygmy leader bluntly remarked to an anthropologist, there is just no point in giving orders "as nobody would heed them." The titles of reference given leaders of hunting and gathering bands speak eloquently of their powers: the Shoshoni leader is "the talker," and his Eskimo counterpart is "he who thinks." In a primitive band each family is a more cohesive, stronger polity than the band as a whole, and each is free to manage its own affairs. Statements such as the following can be duplicated in substance from many reports of societies of this level: "There is no rank or class among the Eskimos, who must therefore renounce that satisfaction, which Thackeray calls the true pleasure of life, of associating with one's inferiors."

The levelling of the social order that accompanied the development of culture is related to the fundamental economic change from the selfish, literally "rugged individualism" of the primate to cooperative kin dealings. Monkeys and apes do not actively cooperate economically; monkeys cannot even be taught by humans to work together, although apes can. Nor is food ever shared except in the sense that a subordinate animal may be intimidated into handing it over to a dominant one.



On the other side, food sharing follows automatically among primitives from the division of labor by sex. More than that, the family economy is a pooling of goods and services, "communism in living" as a famous nineteenth century anthropologist called it. And mutual aid is extended far beyond the family. It is a demand of group survival that the successful hunter be prepared to share his spoils with the unsuccessful; "the hunter kills, other people have," say the Yukaghir of Siberia.

In a band economy, goods are commonly passing from hand to hand, and the circulation gains momentum in proportion to <sup>the</sup> degree <sup>^</sup> of kinship among households and the importance of the goods for survival. Food, the basic resource, must always be made available to others on pain of ostracism, and the scarcer it becomes the more readily it must be given away, and that for nothing. In addition, food and other things are often shared to promote friendly relations, utilitarian considerations notwithstanding -- just as we ritually give gifts to friends and relatives on certain occasions, even to the ones who "have everything." There was a time in human affairs when the only right of property that brought honor was that of giving it away.

The economic behavior of primitives obviously does not conform to the stereotype of "economic man" by which we organize, and analyze, our own economy. But it does conform to a realm of economics familiar to us, so familiar that no one bothers to talk about it and it lacks an economic science: kinship-friendship economics. There is much to be learned about primitive economics here, and it would not be a mere exercise in analogy, for our



kin life is the evolutionary survival of relations once equal to society itself.

This excursion into kin economics epitomizes the major point of the essay. Human society overcame or subordinated such primate propensities as selfishness, ~~intensive~~<sup>indiscriminate</sup> sexuality, dominance, and brute competition. In its earliest forms it substituted kinship and cooperation for conflict, placed solidarity over sex, morality over might. All of this was a necessity if mankind was to overcome the perils of the Stone Age. A famous pioneer anthropologist, Lewis Henry Morgan, used to liken progressive improvements in culture to a series of great reformatory movements. But Morgan missed the greatest reform of all, the overthrow of human primate nature that marked the origin of human society and culture.