

Dear Jo: —

Copy
3 Carbons
Double Space June 13, 1955

S.W. Africa
1955

When we came thru Johannesburg in April - Dad was taken by Dart around the laboratory and the baboons. I carelessly mentioned the idea of a study of baboons "in situ". The idea produced the typical Dartian implosion. ~~There~~ ^{There} is a zoological professor named Bolwig ~~also~~ in the Wits who is a very nice person. Dart played ^{on} his magic bow and found Bolwig resonant to it. In fact it seems that it has been the fondest dream of Bolwig to make a study of animal behavior with modern ~~some~~ instruments. It also seems that his wife and children - 10-11±, want to do it too. So the day after I left - they (the family) went off to Nyström to a little frequented valley to see about some Baboons they knew about. They stayed a week and found there are four families there. Reporting back to Dart - he saw ~~the~~ ^{the} idea of a place within commuting distance of the Wits and had visions of classes going there for study of psychology etc.

When I came back to get John & Storey Dart came to lunch and arranged for Bolwig to come over later. He is a sincere Dave with obvious devotion to his zoology. At my request he had prepared (that afternoon) a statement of purposes and costs. We talked about it a bit and (I think) agreed that a "quickie" would be useless; that however a few months of study in the valley of the basic aspects of the problem of how to do the job properly would likely be rewarding, but that

Such a study should be a collaboration between
a zoologist and a technician. ^{for at least part of the time.} The technician
to concentrate on the job of how to set up remote
control cameras-sound gear and the like - and to
get a perspective of Star would be "nice".

Apparently baboons don't cover too large an
area in their vocational pursuits - and seem to
have a vague regularity in their movements. I
have heard it said that they change their sleeping
place every night - unless they have a particularly
safe place - to fool the leopards - who seem to
be in a symbiotic relationship! - tho a family
of thirty baboons could hardly generate ^{steady} meals for
two leopards even with the utmost effort at
procreation - with a gestation period of seven months.

Bolwig who is an able person. is willing to
undertake the study (preliminary) and if we like his
report and will back it - will resign from the
Wits - or get leave - or persuade them to collaborate,
which Dart thinks might happen - and devote two
or three years to the job.

If competent people at Harvard and the
Smithsonian and any others who might be interested
would like such a study made - I have a
premonition that it could be financed.

Would you send a copy of this - and the
enclosed - to Leonard - and ask his comments.

Lawrence.

Camp between Kudumalappuzha and Kungware - where
Theunis Burger shot 2 out of 4 lions who were circling
our camp at 9 P.M. One went off - saw his spoor in
the morning - the other stayed a yard from the dead female
(25 yds from our camp) all night and left after we woke. We
had rain! at 6 A.M. and his spoor was after the rain.

June 13, 1955

Dear Jo:

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Would you send a copy of this, and the enclosed, to Leonard, and ask his comments.

(Signed) Laurence.

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July 22, 1955

Dr. Leonard Carmichael
Secretary, Smithsonian Institution
Washington, D. C.

Dear Dr. Carmichael:

I enclose a letter from Laurence Marshall and a "Proposed program for suggested study of Baboons."

This proposal is a representative of the kind of thing we often get: The attempt at the ideal. Mamologists and anthropologists (you, better than anybody else, will know whether psychologists should be added) frequently criticize studies made of apes in laboratories and other enclosed premises. It is felt that if only we could study them in a "normal, natural" situation, we would obtain reliable information on how they would really behave. The enclosed proposal by Neils Bolwig is one of these. How much results of research with complex devices in which "the first few months must be spent on making the baboons acquainted with the presence of the observers" will be better than results on an Anthropoid farm or on the baboon colony on top of Dart's Medical School at the Wits, I do not feel confident to estimate, but I would wish to see some very serious thought on the problem.

I am sending this over to Bill Howells who succeeded Hooton as physical anthropologist here, and who is at present attending the Pan African Congress for Pre-history at Livingstone. He has been in South Africa and has seen Dart so will probably have heard about this (Dart is not the type of man who would ever be reticent about an exciting idea). In any case, I shall ask him to go into it more fully if he should be returning via Johannesburg.

Will you please consult your people and see what they think.

As far as the work of our Joint Expedition goes, they seem to be getting along very well indeed.

Sincerely yours,

J. O. Brew
Director

JOB:HS

PROPOSED PROGRAM FOR A SUGGESTED STUDY OF BABOONS

The aim of a study of baboons should be:

- a. To record and analyse the group-behaviour and the social organisation of the troupe. The hierachical order, the fights for rank and leadership, family grouping, right to food morsels etc. should be observed and if possible recorded.
- b. To observe the attitude of one troupe towards another and if possible their attitude towards outcasts.
- c. To record and analyse their attitude to dangers. The voice of leopard, birds, man, baboons in captivity etc. might be reproduced and transmitted over loud-speakers, and various attraps may be shown to them. In this connection a special study of sentinels, warnings and threats should be made as well as of protective and defensive measure and attitudes.
- d. To record and analyse courtship, fights and displacement activities.
- e. To study the relationship between husband and wife, parents and children as well as the relationship between families and their place in the social hierarchy.
- f. To make records and analyses of mimic and sound "language". Particularly, a record of the mimic language should prove useful for comparison with other monkeys, apes and man. Much use should be made of sound recorders and cine-camera for this purpose.
- g. Voices recorded and perhaps cine projections should (be) used for the study of baboons in captivity, which should be
 - 1: baboons that have grown up in domesticated colonies, and
 - 2: baboons which from birth have been separated from their parents and other baboons which might have been taught by their parents.

By observing the reactions and behaviour of such animals it should be possible to decide which features are innate and to what extent modifications in their behaviour are possible.

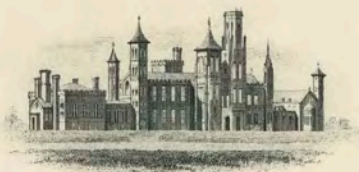
The first few months must be spent on making the baboons acquainted with the presence of the observers. Food may from time to time be laid out. The time required for this purpose is estimated to be about 3 months. After that period systematic observations should be possible.

(signed) Niels Bolwig
Dept. of Zoology
University of the Witwatersrand

P.S. To save postage I left off the estimate.
by A bit of revision needed. A few thousand pounds, roughly.

L.K.M.

UNITED STATES NATIONAL MUSEUM
BUREAU OF AMERICAN ETHNOLOGY
ASTROPHYSICAL OBSERVATORY
NATIONAL AIR MUSEUM
NATIONAL ZOOLOGICAL PARK



SMITHSONIAN INSTITUTION

Washington 25, D.C.
U.S.A.

NATIONAL GALLERY OF ART
NATIONAL COLLECTION OF FINE ARTS
FREER GALLERY OF ART
INTERNATIONAL EXCHANGE SERVICE
CANAL ZONE BIOLOGICAL AREA

August 8, 1955

*Carmichael answered
8/10*

Dr. J. O. Brew, Director
Peabody Museum of
Archaeology and Ethnology
Harvard University
Cambridge 38, Massachusetts

Dear Dr. Brew:

Thank you very much indeed for your letter and for the enclosed copy of a letter from Laurence Marshall together with his program for a study of baboons. I am certainly very much interested in this proposal. You may remember that for the last fourteen years I have been Chairman of the Board of Scientific Directors of the Yerkes Laboratories of Primate Biology, and in connection with the work of these laboratories I have kept up a continued interest in field studies of chimpanzees and related types. I am afraid I must admit that I have myself always hoped to participate in an expedition to study such animals in the field.

✓ Henry Nissen, the present Director of the Yerkes Laboratories, has done field study work on chimpanzees in Africa. I feel that his advice about the proposed study would be especially worth having.
✓ Dr. Clarence R. Carpenter of Pennsylvania State College has also done some fine field studies on monkeys. His opinion about the proposed study would be valuable.

I really wonder what the next step is. Laurence Marshall's comment, "I have a premonition that it could be financed...", puzzles me. I am afraid that we at the Smithsonian Institution do not have any funds that could be allocated for this purpose. Nevertheless I am pretty well convinced that I know where a few thousand dollars could be secured for a study of this sort. What are your suggestions?

Sincerely yours,

Leonard Carmichael

Leonard Carmichael
Secretary

South Africa
55
Baboons

August 10, 1955

Dr. Leonard Carmichael
Smithsonian Institution
Washington 25, D. C.

Dear Dr. Carmichael:

Thank you for your letter of August 8 concerning the South African proposal for the study of baboons. I thought this might interest you.

My proposal is to take various opinions in preparation for the return of Laurence Marshall from the field. Our chief physical anthropologist here, Bill Howells, (successor to Hooton) is at present in Africa attending the Pan African Congress of Prehistory at Livingstone. I am hoping that he will be able to discuss this proposal with the principles in Johannesburg before his return. I shall take the opinions of Nissen and Carpenter as you suggest.

Apparently the dangerous part of our Expedition has been successfully achieved. The vehicles which you obtained for us from the Army succeeded in making the crossing of the waterless part of the Kalahari carrying the necessary amounts of water and petrol. The first trip out from their present camp after the crossing shipped 331 100-foot spools of Kodachrome movie film to Rochester so we can obviously take it that the photographic side is operating successfully. I have also received notice this morning that two packages are waiting to be picked up at Pan American Air Cargo. These are still films and sound recordings.

With best wishes.

Sincerely yours,

J. O. Brew
Director

JOB:HS

Black
Henry Owen Skin
MACTUSA

August 10, 1955

SW Africa
53
Baboons

Dr. Clarence R. Carpenter
Pennsylvania State College
State College, Pennsylvania

Dear Dr. Carpenter:

I am writing you at the suggestion of Dr. Leonard Carmichael. Intermittently during the last 5 years, Peabody Museum has had an Expedition in the field in South West Africa, the Bechuanaland Protectorate and Southern Angola making anthropological studies and taking moving pictures and sound recordings of some of the few remaining wild Bushmen groups. The Expedition is in the field at the moment under the leadership of Laurence K. Marshall. During a visit made by Mr. Marshall to Johannesburg through contact with Professor Raymond Dart, head of the Department of Anatomy at the Medical School of the University of the Witwatersrand, he encountered a Danish scientist on the staff of the University, Niels Bolwig by name, who presented to him a proposal for a field study of baboons in their native habitat.

This involves primarily collaboration between a zoologist and a technician for at least part of the time. The technician would concentrate on the setting up and handling of remote control cameras, sound gear and the like.

This proposal seems to me to represent the kind of thing we often get in many fields, namely an attempt to approximate the ideal of "normal and natural" conditions. One of the first questions I should ask would be: how much will the results of research with complex devices in which "the first few months must be spent on making the baboons acquainted with the presence of the observers" be better than results on an anthropoid farm or on the baboon colony on top of Dart's Medical School at the Wits? Our chief physical anthropologist here, William W. Howells (successor of Hooton) is at present in Africa attending the Pan African Congress at Livingstone and I am hoping that he will be able to talk with Bolwig and Dart before he returns.

Would you be so kind as to give me your opinion of this proposal. Apparently two to three years are envisaged for the length of the study.

Very sincerely yours,

J. O. Brew
Director

JOB:HS

THE PENNSYLVANIA STATE UNIVERSITY
STATE COLLEGE, PENNSYLVANIA

PEABODY MUSEUM
RECEIVED

AUG 18 1955

ANS. _____

COLLEGE OF EDUCATION
DEPARTMENT OF PSYCHOLOGY

August 16, 1955

Mr. J. O. Brew, Director
Peabody Museum of Archaeology & Ethnology
Harvard University
Cambridge 38, Massachusetts

Dear Mr. Brew:

You have asked me to make an extremely difficult decision. There are both certain and uncertain factors. Among the former are:

1. A naturalistic and systematic field study of baboons, preferably two or more genera, urgently needs to be made.
2. A field study paralleling the Nissen and Carpenter studies on chimpanzees, howler and rhesus monkeys and the gibbons would be feasible.
3. The success of a field study, among other factors, primarily depends on the qualifications and experience of the scientists who undertake the tasks.
4. A minimum of a year's time will be required for each type studied.
5. Photography and sound recordings are somewhat incompatible with systematic observations of behavior and social interactions, but both can be done.

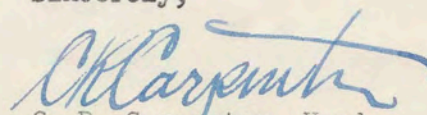
The language of the proposed study indicates that the person or persons who prepared the proposal are not well trained in terms of conceptual systems to undertake the project. Obviously this terminology is an inadequate basis for judgments. Dr. Howells and Dr. Washburn, both of whom are in Africa, should be asked to make judgments about the qualifications of Bolwig and Dart. They know the requirements.

Certainly an expedition to study behavior and social relations should have a man or two trained in behavioral studies just as specialists might be required for anatomical or other problems. Not only must the person be a good observer but he must know what to observe!

Perhaps I have not been very helpful. The general study is important and needs to be done. Field studies of primates are exceedingly difficult to accomplish. When all factors are favorable, there is at least a 70-30 probability of success.

I would place heavy responsibility on Howells and Washburn for recommending for or against the project.

Sincerely,


C. R. Carpenter, Head
Department of Psychology

CRC:drp

S. W. Africa
Baboons

August 22, 1955

Professor C. R. Carpenter, Head
Department of Psychology
The Pennsylvania State University
State College, Pennsylvania

Dear Dr. Carpenter:

Thank you for your letter. I realize my question was difficult and I am very grateful for you for doing it the honor of treating it properly. For our part here, we don't want to get into anything like this unless it is going to be done right. A great deal of time and money can easily be wasted on such a project. On the other hand, we have a man associated with us who is interested in anthropology, Africa, baboons and electronics. Furthermore, he has possible access to funds which might be used for such a study. Consequently, I feel an obligation to explore this project thoroughly.

Howells came in this morning from Africa. He has talked with Dart about the project but not with Bolwig. I shall have a session with him on the matter before long. I have not yet heard from Nissen. I shall keep you posted.

With many thanks.

Sincerely yours,

J. O. Brew
Director

JOB:HS

UNIVERSITEIT
VAN DIE
WITWATERSRAND



UNIVERSITY
OF THE
WITWATERSRAND

S.W.A.S.
Baboons

MEDIESE SKOOL
HOSPITAALSTRAAT
TELEFOON No. 44-1492

JOHANNESBURG

MEDICAL SCHOOL
HOSPITAL STREET
TELEPHONE No. 44-1492

RECEIVED
OCT 4 1955

BY BEANTWOORDING GEE OP:	IN REPLY PLEASE QUOTE:
No.....	

ANS.
ANS.

Dr. J. O. Brew,
Peabody Museum of Archaeology and Ethnology,
Harvard University,
Cambridge 38, Mass., U.S.A.

2nd September, 1955.

Dear Dr. Brew,

A long time has elapsed since I last wrote to you and in the meantime we have had the Third Pan African Congress in Prehistory at Livingstone, through which we have revived many old friendships and made new ones. I need not say what fun it was to have Bill Howells and his wife and daughter along with us; it just seemed we had known and been with them always and it should remain that way right along.

Galen and Diana went with Marjorie and me and made their first emergence from the Union and saw the Rhodesias and the Congo by car. For them too it was all a great thrill but now they, like myself, are back at work. When I returned I found this rather old letter from Mr. Laurence Marshall, which I thought you would like to see. Even if you should have heard from him since, this would help to fill in any empty spots in his narrative. He felt that the journey they were going to do would be rather heavy for Professor Maingard and that they could follow his technique in making the records of speech.

Dr. Howells discussed with me the possibility of investigating baboon behaviour in the raw state and Dr. Bolwig's capacity to undertake the work. I think he would do a good job on his own and a proportionately better one according as he was assisted by other persons forming a team of investigators. I am sure that both you and Dr. Howells will have seen the published report of the seminar, which has been made a memorial to Dr. Hooton and in which the crying need for these behaviouristic studies has been set forth with an advocacy that I cannot begin to emulate.

I only hope that if a team is formed to help Bolwig study the baboons here that Dr. Howells will be the physical anthropologist attached thereto even if only for a few months and that his entire family will join him on that trip and that you and your family will come out too and bring Dr. Movius with you.

In the meantime with the kindest regards to all of you.

I am,
Yours sincerely,

RAYMOND A. DART.
Head of the Department of Anatomy.

S.W. Africa
55
Baboons

Department of Zoology,
University of the Witwatersrand
Johannesburg, South Africa.

21. Sept. 1955.

Mr. L. K. Marshall,
4 Bryant Street,
Cambridge 38,
Mass. U.S.A.

Dear Mr. Marshall,

I had hoped by now to have been able to report to you on the more important work that has been done on the behaviour of baboons, other monkeys and apes. Unfortunately it is impossible to obtain more than a very few of the publications here in South Africa. Most important are for technical reasons the papers by Carpenter on howling monkeys and on gibbons. Although I have been searching for these publications for months in catalogues from all over the world, and through the University Library, I still have not got them. I believe Professor Dart has written to Dr. Carpenter who is now in Chicago, but up till now I have heard nothing. Another important book is that by Zuckerman on Social Life of Monkeys and Apes, 1932, but although it contains many good observations and thoughts there is in it to my mind, too much talk and philosophy. I believe Dr. Zuckerman is a psych^{ol}ist more than a Zoologist.

It may interest you to hear^l that I intend to build a cage for baboons in my garden and I shall get the first small baboon (male) in a little more than a month, as soon as it is weaned. I would like to have a pair which have been taken from their mothers as early as possible, before they have learned too much from other baboons. This is to be able to check the behaviour of wild baboons in order to determine how much is acquired and how much is innate.

Enclosed is a list of books I would recommend as the most valuable.

I look forward with great interest to hearing the result of your meetings in October and send you my best wishes.

Yours sincerely

Niels Bolwig.

CARPENTER C.R. (1934).

"A field studies of the behaviour and social relations of the Howling Monkeys!"
Comp. Psychol. Monographs 10, No. 2. 168 pp.

CARPENTER (1935).

"Behaviour of Red Spider Monkeys in Panama"
J. Mammal 16, pp 171-180.

CARPENTER (1940).

"A field study in Siam of the behaviour and social relations of the Gibbon (Hylobates lar)"
Comp. Psychol. Monographs 16 (5), 212 pp.

CARPENTER (1942)

Sexual behaviour of free ranging rhesus monkeys (Macaca Mulatta).
J. Compar. Physiol. 33, pp 133-62.

CARPENTER (1953).

Grouping behaviour of howling monkeys.
Archiv. Neerland. Zool 10, Suppl. 2, pp 45-50.

HADDOW, A.J. (1952).

Field and laboratory studies on an African Monkey, Ceropithecus axanius Schmidt Matschie.
Proc. Zool Soc. Lond. 122, pp 297-394.

RUCH, T.C. (1941).

Bibliographica Primatologica. a classified bibliography of Primates other than man, part 1.
Springfield, Illinois Thomas XXVII + 241 pp.

BUXTON A.P. (1952).

Observations on the diurnal behaviour of the redtail monkey Ceropithecus axanius Schmidt Matschie in a small forest in Uganda.
J. Animal Ecol. 21, pp 25-58.

YERKES LABORATORIES OF PRIMATE BIOLOGY, INC.

ORANGE PARK, FLORIDA

Conducted by YALE UNIVERSITY and HARVARD UNIVERSITY

October 3, 1955

PEABODY MUSEUM
RECEIVED

OCT 5 1955

ANS. _____

*Book
Helen
Please copy with
4 carbons.*

Dr. J. O. Brew, Director
Peabody Museum of Archaeology
and Ethnology
Harvard University
Cambridge 38, Massachusetts

Dear Dr. Brew:

Your letter of August 10th arrived here while I was away on a trip and somehow got mixed in with some second class mail which until now has received no attention. I am very sorry about this delay.

There is, I feel, a real need for field studies of the kind proposed. Very little work of the kind has been done with the African primates. From the little I know of baboons, the procedure outlined would be more feasible with them than, say, with chimpanzees. The apes would probably stay away from the area of cameras and observers. Baboons are also nomadic, I believe, but much less afraid of man than the chimpanzee. Especially if food were put out for them, they might well stay within the area of observation.

It is my belief that social interactions, especially, are strongly influenced by captivity. Some of the observations reported by Zuckerman, for instance, may not be at all typical of the wild baboon. Quantitatively, at any rate, the differences may be very great. The ideal conditions, probably, are those which obtained in Carpenter's study of the howler monkey on Barro Colorado Island. There was a natural population to start with, living in a natural habitat from which they could not escape, and where they had ample opportunity to find out that man was a neutral, non-dangerous part of the environment. I do not know what the conditions are in Dart's baboon colony. One is confronted in any case with a compromise between finding near-optimum conditions for observing, recording, and photographing, without having those conditions materially affecting the behavior to be observed.

Dr. Bolwig's proposal reflects an adequate appreciation of the kind of data that would be of particular interest. It appears also that he has some familiarity with the animals and their habits. He evidently recognizes the need for technical competence in operating the recording devices. Cinematic recording is of course expensive and cannot replace

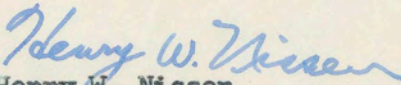
Dr. J. O. Brew - p. 2
October 3, 1955

the need for good first-hand observation which might be dictated on a disc or tape machine.

I suppose my reactions can be summarized by saying that this study seems to me important, and that its success will depend on the investigator.

This is a very inadequate response to your inquiry, and I'll try to supplement it any direction that you may suggest.

Sincerely yours,


Henry W. Nissen
Director

HWN:mt

AIR MAIL

Oct. 3, 1955

(COPY)

S.W.A. 55
Baboons

Dr. J. O. Brew, Dir.
Peabody Museum
Cambridge 38, Mass.

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Sincerely yours,

Henry W. Nissen
Director

HWN:MT

AIR MAIL

SWAfrica
55
Baboons

August 10, 1955

Dr. Henry W. Nissen
Director, Yerkes Laboratories of Primate Biology
Orange Park, Florida

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Very sincerely yours,

J. O. Brew
Director

JOB:HS
Enc.

PEABODY MUSEUM

RECEIVED

NOV 7 1955

ANS. _____

JACOB FINE, M. D.

330 BROOKLINE AVENUE

BOSTON 15, MASSACHUSETTS

*S. W. Africa
Baboons.*

SURGEON-IN-CHIEF
BETH ISRAEL HOSPITAL
PROFESSOR OF SURGERY
HARVARD MEDICAL SCHOOL

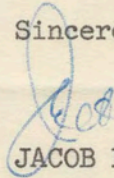
November 3, 1955

Professor John Brew
Peabody Museum
Harvard University
Cambridge, Mass.

Dear John:

This is to report to you that I interviewed Dr. Nissen about the South African baboon project. He had already given the matter considerable thought and was very much impressed with the competence of the man in Johannesburg who is anxious to undertake it. I asked him whether the Zukerman study was not sufficiently exhaustive. He said that as a matter of fact the bulk of Zukerman's observations were made in the London zoo, and that there was much more to be learned about the behavior patterns of the baboon by a more intensive study in their native habitat than Zukerman had made. Dr. Nissen, not being an extrovert, didn't wax enthusiastic, but I think he was strongly in favor of the idea of going ahead. Best wishes.

Sincerely,



JACOB FINE, M.D.

JF:ps

November 8, 1955

Dr. Jacob Fine
330 Brookline Avenue
Boston 15, Massachusetts

Dear Jack:

Thanks for your report on Nissen and the Baboon project. I will be having a meeting with Laurence and Bill Howells soon about it and have put your letter in with the rest of the documents.

I enclose the notice for the next meeting of the Shop Club. I hope you can come. Will you please send the return half of the post card back to me.

Sincerely,

J. O. Brew
Director

job:hs

Enc.-card

PROPOSED PROGRAM FOR A SUGGESTED
STUDY OF BABOONS.

The aim of a study of baboons should be:

- a/ To record and analyse the group-behaviour and the social organisation of the troop. The hierarchical order, the fights for rank and leadership, family grouping, right to food morsels etc. should be observed and if possible recorded.
- b/ To observe the attitude of one troop towards another and if possible their attitude towards outcasts.
- c/ To record and analyse their attitude to dangers. The voice of leopard, birds, man, baboons in captivity etc. might be reproduced and transmitted over loud-speakers, and various attraps may be shown to them. In this connection a special study of sentinels, warnings and threats should be made as well as of protective and defensive measures and attitudes.
- d/ To record and analyse courtship, fights and displacement activities.
- e/ To study the relationship between husband and wife, parents and children as well as the relationship between families and their place in the social hierarchy.
- f/ To make records and analyses of mimic and sound 'language'. Particularly, a record of the mimic language should prove useful for comparison with other monkeys, apes and man. Much use should be made of sound recorders and cine-camera for this purpose.
- g/ Voices recorded and perhaps cine projections should used for the study of baboons in captivity, which should be
 - 1: baboons that have grown up in domesticated colonies, and
 - 2: baboons which from birth have been separated from their parents and other baboons which might have been taught by their parents.

By observing the reactions and behaviour of such animals it should be possible to decide which features are innate and to what extent modifications in their behaviour are possible.

The first few months must be spent on making the baboons acquainted with the presence of the observers. Food may from time to time be laid out. The time required for this purpose is estimated to be about 3 months. After that period systematic observations should be possible.

P.S. by L.K.M.

To save postage I left to
the estimate. A list of
revisions needed.
A few thousand pounds-roughly.

Niels Bolwig

Niels Bolwig
Department of Zoology
University of the Witwatersrand.

pay
with 4 Carbons

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Dept. of Zoology
University of the Witwatersrand

Memorandum to Ed Hunt
From: J. O. Brew
Subject: Baboons

Please give the enclosed careful attention
and prepare for me a preliminary opinion.

AUG 2 1955

MEMORANDUM TO DR. J. O. BREW CONCERNING BABOON PROJECT

ANS. _____

August 1, 1955

In my opinion, a start should definitely be made on this project, with a small research budget and a minimum of equipment.

The investigators should spend considerable time observing captive animals and working out a terminology of some sort for many of the typical sequences of *vocalization and* postural and locomotor behavior. The work of Zuckerman and Carpenter is suggestive of what could be done in further developing such a classification. Motion pictures of captive animals would also be helpful here.

A portable tape recording machine, in which tapes could be erased when desired, could be purchased, and each investigator should train himself to be able to talk into it for an hour while observing minutely the behavior of a group of captive animals.

The habitat of the wild animals might be mapped carefully, preferably from a geological or aerial map, and laid off in squares. While observations are made in the field, such a map, with a grid on it, would be invaluable in locating individual animals, food sources, etc., and reconstructing behavior later in minute detail, such as typical composite "behavior days."

The investigators very likely would occupy "baboon-proof" shelters, where they would be protected from possible aggression or destructive mischief from the animals. If possible, such shelters should be readily portable. It will probably be difficult to protect outlying microphones or cameras.

Running cameras or tape recorders without film and tape is a useful way to get the animals used to mechanical sounds. Only when the animals cease to react to these sounds should actual recording of vocalization and motion pictures be attempted.

A considerable fraction of the budget should probably be allotted to

stenographers to transcribe verbatim texts of the tape recordings.

If this study produces an adequate "choreography" of a baboon group it will have come far. If observations are exact enough, it should be possible, for instance, to reconstruct the developmental sequences of locomotion in infant animals of known age, the individual living spaces of the members of the group, and changes of dominance with age.

The protocol makes no mention of nocturnal behavior. Although motion pictures would be impracticable, the activities of "sentinel" animals and habitual spatial distribution of the sleeping animals would be highly desirable data. If the investigators become so familiar to the animals that the entire group will sleep with scientists in the neighborhood, I should have more confidence that a relatively "natural" record of wild baboon behavior and social relations will be possible.

Among the specific topics which I should like to see covered in this investigation would be: (1) Use of the hands and feet for manipulation of objects and obtaining food (2) Use of jaws and teeth. (3) Sharing of food (3) Timing and frequency of copulation as related to the menstrual cycle, pregnancy, and the ages of the animals. (4) Whether wild baboons copulate more or less frequently than do captive ones. (5) How baboons maintain their territorial boundaries. (6) Any regularities in their patterns of searching for food, depending on the seasonal availability of particular foods or water. (7) Reactions to shortages or abundant supplies of food. (8) Mechanisms of group protection, alarms, etc. (9) Use of eyes, nose and hearing: the relative importance of the various senses. (10) Reactions of the animals to the investigators: are human intruders treated like strange baboons, or like other species of animals? (11) Since wild baboons obviously do not murder each other as often as did those in the London zoo, how are crowding of the animals and the frequency of aggression related? In part this could be done on captive specimens.

(12) Are the movements of baboons in their living space influenced by the accumulation of feces or garbage, as are (in part) the movements of African pygmies? (13) Is freedom of movement in the living space related to the degree of dominance of an individual animal? (14) Do wild baboons groom one another as often as do captive ones? What are the relationships between crowding and grooming? (15) Is behavior which might be classified as "dominance" less frequent in wild animals than in captive ones?

In reviewing the preceding questions, I note how many of them could be at least partially answered by a minimum of elaborate mechanical equipment. I wonder whether the cameras and extra microphones should be added only gradually, after a large proportion of the basic data are gathered by means of the map-grid and tape recorder. Very likely the motion pictures could be made as a separate enterprise quite late in the investigation, when the scientific team has a clear idea ^{of} what should be documented photographically.

*Edward E. Hunt, Jr.
Lecturer in Anthropology
Harvard University.*

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(signed)

Edward E. Hunt, Jr.
Lecturer in Anthropology
Harvard University

S. W. Aguirre
1955
Baboons

1 Dart did not mention this to me before I brought it up, though I had seen him constnatly; he did apparently talk it over with a few people, certainly with Washburn. However, his feelings about it correspond with Marshall's letter. At the same time, he said flatly that Marshall is very enthusiastic, and that it would not be correct to regard Dart as the one doing all the enthusing; he distinctly wants nobody (by whom I think he means both JOB and the WennerGren) to get the idea that he himself has gone crazy on the subject of baboons. However, he did react immediately to Marshall's suggestion because of Bolwig's having come to see him about this time, manifesting an interest in animal behavior.

2 Bolwig's qualifications. He is Danish, and fundamentally an entomologist (bees). When Vander Horst retired as head of zoology at Wits, Bolwig succeeded him temporarily, but did not get chair ~~xxx~~ (Belinsky did) because his background was insects, not mammals. He is nevertheless a ~~an~~ skilful director and technician, exceedingly good at devising and making instruments (e.g. microscopic affairs for insect dissection). His interests include animal behavior very definitely; he invited well known man in this field, Tinbergen, down from Copenhagen and took him to Kruger, where Bolwig himself got much interested in baboons. At the same time, he heard of this favorably situated, isolated locality, where baboons live (Dart says it is rather like Makapan in this respect, though much more protected). His wife is possibly a London graduate; she and children like to ~~live~~ live on veld. Bolwig is in late 30's or early 40's.

Dart asked Bolwig to go up and look place over. It is leopard country and he was warned about being there alone, but he and wife were not in the least apprehensive about it, or inhibited in their investigation, evidently feel at home in this situation. Dart thinks Bolwig admirably adapted to such a project temperamentally; he also thinks this area a good one, with more than one pack in it.

All the above is from Dart: I did not see Bolwig and know nothing about this other than what Dart told me.

3 Dart's opinions on special aspects, in response to my questions. a) specifically about technical aspects: Bolwig could handle specialized recording equipment, etc, understands it well; blinds and stands could be built, and would work, for long term occupation by observers and equipment
b) baboons of this area, and area itself, are well adapted for the study, and are probably the most promising Old World monkeys for study from several points of view.
c) if the money is put up, will the job get done? Dart says yes, Bolwig competent as director and qualified and motivated to do the job.

4 General remarks: Dart and I both look on it as a fairly long term affair, since a lot will have to be learned as the work progresses. It would have to be directed somehow by a group of experienced people giving initial advice, at least, and a team of younger but competent people work under Bolwig, if he heads it. I am thinking of Carpenter and Nissen, who would doubtless be glad to help. (NB Washburn should be consulted - he is interested in African study of OW monkeys personally, and talks about behavior studies - however, he actually is not contemplating any such, and is not even planning any photography himself, from all I remember in conversation with him)

One thing I cannot say: how qualified in psychology, or the kind of work Carpenter did, Bolwig is. I have not seen him. He may at the moment know less than he should about previous work (the outline submitted sounds a little as though he were starting to base his work directly on Zuckerman, instead of being prepared to find out if Zuckerman's general assumptions are wrong). But he probably would be as well prepared as anyone available

4 My personal opinion, which I kept out of the above, and discussions, is that it would be a pity not to carry this out. If Bolwig is as good as Dart says, the idea couldn't be a total failure. But mainly, this important field has been completely neglected for many years, and is crying to be taken up again, and I have thought myself that new technical methods made it particularly important to begin again. Also, since Zuckerman worked in the zoo, baboons in the wild are the obvious starting point.

Baboon Project

July 10, 1956

S.W. A.
Baboon Project

suggestions by
Sherry Washburn

1. Open bush.

2. Not shot at

3. also when other animals have not been shot at.