

Tahiti

TAHITI

FOLDER 1990s

G. H. BALAZS

PAGE 2 FOR TATARATA, MIRI

"FONDATION HIBISCUS"

(Association Règle Loi 1901)
 Pour la protection des Tortues
 BP 184 HAAMENE
 Ile de TAHAA
 Polynésie Française
 (French Polynesia)
 TEL. 65.65.65



08.05.1996

TRÈS URGENT
 SUP

Mountain Georges H.
 BALAZS
 LEADER MARINE TURTLE
 RESEARCH PROGRAM
 FAX 18098431290

Bonjour,
 Hello

WE NEED VERY URGENTLY 500 TAGS, FOR
 TURTLE, CAN YOU SEND US WITH AIR-MAIL
 THIS 500 TAGS?

MIRI SAID ME, SHE RECEIVE, YOUR LETTER, FOR
 TRANSLATION IN ENGLISH US LAST LETTER!

- J.P. LANDRET, GIVE ME THE LAST TAGS, WHERE
 HE HEAVE.

- YOU WILL FIND, THE NUMBERS FROM THE
 LAST TURTLE WE RELEASE, BETWEEN 06.04.1996
 AND 03.05.1996 -

Bien Amicalment From TAHAA

Leo MOROU

« FONDATION HIBISCUS »

(Association Régie Loi 1901)
 Pour La Protection Des Tortues Marines
 bp184 HAAMENE
 Ile de TAHAA
 POLYNESIE FRANCAISE (French Polynésia)
 Tel : (689) 65.61.06
 Fax : (689) 65.65.65



Non name GEORGE PALAZZ
 U.S. DEPARTMENT OF
 COMMERCE
 HAWAII

Fax 808-943-1290

IAORANA,

THANK YOU FOR YOUR FAX.

PLEASE SEND THE 100 TAGS + APPLICATOR
 FOR SMALL SIZE TURTLES. SURE, TAGS
 BEING MEANT FOR LARGER TURTLES!

THANKS AGAIN.

I HEARD YOU WOULD BE VISITING
 TAHITI AT THE END OF THE YEAR, TO SET UP
 A PROGRAM WITH THE LOCAL GOVERNMENT

I WISH YOU COULD SPARE 24 HRS
 TO COME AND SEE US IN TAHAA

Sincerely

TATARATA, MIRI

DELEGATION A L'ENVIRONNEMENT
PAPEETE, TAHITI

10 MAY 96
FAX 808-943-1290
TWO PAGES

NMFS, HONOLULU LAB
Marine Turtle Research
2570 Dole Street
Honolulu, HI 96822-2396

DEAR MS. TATARATA:

THANK YOU FOR YOUR FAX. I AM
VERY GLAD YOU RECEIVED MATERIAL I POSTED.
MORE IS ON THE WAY. WILL YOU PARTICIPATE
IN APIA MEETING? I HOPE YOU CAN ATTEND.

YESTERDAY I RECEIVED LETTER (FAXED HERE)
FROM "HIBISCUS" (IN ENGLISH). VERY URGENT REQUEST
FOR 500 OF MY TAGS. YOU ASKED ME TO COORDINATE
ALL REQUESTS THROUGH YOU. I AM DOING SO NOW.
I CAN NOT AFFORD 500 TAGS POSTAGE BY AIR.
TOO MANY \$\$\$. IF YOU APPROVE, I CAN PROVIDE
300 TAGS TO HIBISCUS. BUT I WOULD BRING IN
SUITCASE WITH ME TO APIA TO GIVE TO YOU.
PLEASE ADVISE ME WHAT TO DO.

PLEASE, I NEED PHILIPPE SIU MAILING
ADDRESS. PLEASE FAX.

IF YOU COME TO APIA, I WOULD
APPRECIATE YOUR BRINGING FOR ME A SMALL
PIECE OF STONE (A LITTLE ROCK) FROM PAAEA.
YES, I LOVE TAHITI! ALOHA,



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396
(808)943-1221 • Fax: (808)943-1290

April 12, 1996

F/SWC2:ghb

Mr. Mike Orr
P.O. Box 556
Honiara
Solomon Islands

Dear Mr. Orr:

Many thanks for relaying the information to us regarding tagged turtle Chelonia mydas S-611. I understand that the animal was killed on January 14, 1996 by fisherman Mr. Ezekiel Vogata of Sisiga Village (P.O. Box 48, Buala, Isabel, Solomon Islands). In addition, the carapace length of the turtle was estimated as 60-70 cm.

This turtle was one of a number that were raised from hatchlings and released by the EVAAM program in French Polynesia. Some of our tags were contributed to the program so that the identification of individual turtles might be facilitated. According to records I have received, tag S-611 was placed on a turtle that was released on January 14, 1993. It would appear from the records that the turtle was released at Scilly Atoll (northwest of Bora Bora). At the time of release the turtle weighed 3.28 kg, and the carapace measured 30 cm. If the turtle was 60-70 cm upon recapture, that would be an astonishing rate of growth for only three years in the wild.

By copy of this letter, I am asking Mr. Jean-Pierre Landret in Tahiti to confirm the above information, and to contact you directly with any additional questions he may have. I will also forward a copy of this letter to the Regional Marine Turtle Conservation Program of the South Pacific Regional Environment Program (SPREP) so they can send Mr. Vogata a T-shirt or other suitable reward for reporting the tagged turtle.

Again, we are most appreciative to Mr. Vogata and to you for contacting us with this interesting and valuable information.

Sincerely,

George H. Balazs
Marine Turtle Research
Program

cc

Jean-Pierre Landret, EVAAM, B.P. 7031, Taravao, Tahiti
Sue Miller, SPREP, Box 240, Apia, Western Samoa



See Tahiti file

[40] From: Shawn Murakawa 3/28/96 1:58PM (1364 bytes: 17 ln)
To: George Balazs
Subject: Mike Orr

----- Message Contents -----

He works with the Nature Conservancy in the Solomon Islands. He wanted to relay a message to you regarding a tag found on a turtle that was killed in Santa I(y)sabel, Solomon Islands. The info. was relayed to a conservation officer there by the son of the fisherman who killed the turtle. The tag # is S611/LFF. It was killed by a local village fisherman, Mr. Ezekiel Vogata, Sisiga Village, P.O. Box 48, Buala, I(y)sabel, Solomon Islands. He killed it at night on Jan. 14, 1996 with a spear, along with two other untagged green turtles. It's estimated carapace length was 60-70cm long. Mr Vogata said that "all hunters from that village they do a race for all the men who killed many turtles". They kill the turtles only for food. The tag said "HIM", I told him it was probably "HIMB". Mike can be reached at (677)20940 or fax (677)21339, P.O. Box 556, Honiara, Solomon Islands if you have any questions. His phone # here in Hawaii is 537-4508 and fax # is 545-2019.

Need

S611

Silly Oct 91 egg
Papeari elevées

Release 1/14/93

S611 3.28kg

30 cm "Long"
27.5 cm "Tag"

DEPARTEMENT AQUACULTURE

E.V.A.A.M.

BP. 20 Papeete

Téléphone : 42 81 48 - Télécopie : (689) 43 49 79

Papeete, le 26 Avril 1996

N° 498 EVAAM/INT/JPL

Mister Jean-Pierre LANDRET

to

IVANGI IIVANGI VIVAN

P.O. Box 556

Honiara

Solomon Islands

Dear sir,

I have just received the lettre that Mister George BALAZS sends to you on April 12, 1996.

I can confirm the informations he gaves to you about the turtle S-611.

She has been raised in Tahiti from egg collected at Scilly altoll in Octobrer 1991 and hatched in late December.

When she was released , she was one year old.

Sincerely,



Jean-Pierre LANDRET

Copy: George BALAZS.

ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF EPT/JPL/bb

Taravao, le 10/10/95

TELECOPIE

FROM : Jean-Pierre LANDRET
TO FAX MESSAGE N° : 00 1 (808) 943 12 90
COMPAGNIE : NATIONAL MARINE FISHERIES
ATTENTION : M. George BALAZS
NB PAGES : 4
REF :

Dear George,

I picked up the tags at the airport two weeks ago.
and gave them to a member of the ~~com~~ O.V.G who
work at the "Environnemental délégation" in Tahiti.

I apologize for not having inform you.

Now, Philippe work for himself as an expert
in Pearl culture. You contact him at "G.S.E POE
RAVA NUI" Phone n°: 438782 FAX: (689) 43 31 67

I have to phone Philippe this day and will transmit to
him your Friendship.

Thank you very much

Best regards

Jean Pierre

ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF ..EPT/JPL/bb

Taravao, le 19/10/95

TELECOPIE

FROM : Jean-Pierre LANDRET
TO FAX MESSAGE N° : 001 (808) 943 12 90
COMPAGNIE : NATIONAL MARINE FISHERIES
ATTENTION : M. George BALAZS
NB PAGES : 1
REF :

Dear George,

- I am writing to give you some informations about a Green Turtle (*Cemyda*) caught by a longline :

- Date: 26-09-95.

- location: 09° 25' S / 110° 00' W (UAPOU - Marquesas)

- Depth \approx 50 m

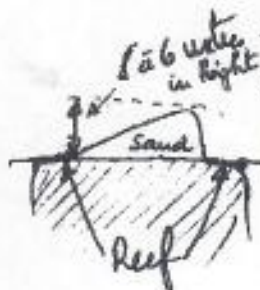
- She was hooked by the mouth and still alive; she was released ~~by~~ by the fisherman (Marquisian).

- She was about 100 kg in weight and very thick and fat. A fisherman thought she was full of eggs... On the abdomen, she showed some injuries which reminded the fisherman of she has already gone up on a beach to lay...-

- The same fisherman told he has already seen a green turtle gone up on "Tlotu au", during some other when swimming around the Island. "Tlotu au" is a very little sand Island at 10 miles in the N-E of Eiao (Marquisian) about 30 by 100 metres, protected from the waves by a reef like an atoll.

Best regards.

Jean-Pierre



ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF ..EPT/JPL/bb

Taravao, le 20/11/95

TELECOPIE

FROM : Jean-Pierre LANDRET
TO FAX MESSAGE N° : 00 1 (808) 943 12 90
COMPAGNIE : NATIONAL MARINE FISHERIES
ATTENTION : M. George BALAZS
NB PAGES : 4
REF :

Dear George,

I have just read your fax dated 16 Nov. 95.

Yes, I am requesting your photo slide. It will be published in our brochure, with your authorization, of course.

I have just phoned to Philippe. He said we he contact you this very day. (Telephone: 43 87 82 FAX: (689) 43 32 67.)

Thank you very much for the brochures you sent to me and for the duplicate.

best regards

Jean-Pierre

Sent
11/21/95



LIMITED EDITIONS



#FJ02-K02 30 x 38" \$205.00
Hoe Kama Kane James Fitt



#FH04-K02 20 x 30" \$455.00
French Polynesia Hank Fotos



#FH01-K02 20 x 30" \$520.00
Pipeline Hank Fotos



#PR53-M03 24 1/2 x 33" \$265.00
Floras Hawaii Rosalie Prussing



#PR83-K01 22 x 22 1/2" \$205.00
Hawaiian Mountain Apple R. Prussing



#PR95-K01 22 x 22 1/2" \$215.00
Raintrops on Waikiki R. Prussing



#FL08 27 x 27" \$185.00
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#RG49-K01 16 x 32" \$585.00
Iao Needle Gary Reed
Also Avail. in 10 x 19 1/2" \$380.00



#RG18 24 1/2 x 34" \$510.00
Kaneohe Cliffs Gary Reed



#SJ16 26 x 39 1/2" \$825.00
Wailele Hana Hou Janet Stewart



#SJ20-K04 23 1/2 x 30" \$660.00
Keiki Milimili Janet Stewart



#SJ19 23 1/2 x 30" \$680.00
Keiki Lai Janet Stewart



PICTURES PLUS



#HP12-K03 27 x 38" \$165.00
Okapaka Pegge Hopper



#HP16-K02 27 x 38" \$165.00
Na Kua Ana Pegge Hopper



#RK02-K02 20 x 24" \$120.00
Wahine Kim Taylor Reece



#RK16-K01 28 x 40" \$165.00
Kai Olo Hia Kim Taylor Reece



#RK22-K01 28 x 34" \$155.00
Kalihiwai O Kauai Kim Taylor Reece



#MT24 27 x 29" \$115.00
Mustique Pavillion Thomas McNight



#MT15-M01 22 x 38" \$155.00
Rivera Coast Thomas McNight



#P07-K01 24 x 30" \$120.00
Gathering Flowers Susan Patricia



#P07-K03 19 1/2 x 25" \$220.00
Gathering Flowers Susan Patricia



#PS06-K03* 15 1/2 x 24 1/2" \$205.00
Now and Forever Susan Patricia



I



II

#GW14/15-M01 15 x 40" \$100.00 ea.
Wisteria Screen William Gatewood



#FL03-M01 24 x 32" \$110.00
Ayumi Luigi Fumagalli

* These images are available in a double mats and 1 1/2" solid koa frame for approx. 40% less than the deluxe framed price. All prices include framing.

FONDS D'INVESTISSEMENT DE DEVELOPPEMENT
ECONOMIQUE ET SOCIALE
- SECTION LOCALE -
TRANCHE 1995

Papeete, le

Ministère de la Mer, du Développement
des Archipels et des Postes et Télécommunications

Ministère de l'Emploi, de la Formation
professionnelle, de l'Insertion des jeunes
et de l'Environnement

Service de la Mer et de l'Aquaculture

Délégation à l'Environnement

Contribution à la sauvegarde des tortues marines

A - DESCRIPTION DU PROJET

1 - Contexte actuel et problèmes à résoudre

La tortue verte, *Chelonia mydas*, la tortue imbriquée, *Eretmochelys imbricata* et la tortue luth *Dermochelys coriacea* sont mondialement menacées d'extinction, et leur avenir en Polynésie Française est actuellement bien incertain.

Par délibération n°90-83 AT du 13 juillet 1990, sont interdits toute l'année le transport, la détention, la collecte des oeufs, la capture à terre ou en mer, la taxidermie, la commercialisation, l'importation et l'exportation de toute partie ou tout produit des espèces citées, à l'état vivant ou mort.

Par le classement des atolls de Scilly et Bellinghausen en réserve territoriale (par arrêté n° 1230/CM du 12 novembre 1992), le Territoire affirme sa volonté de protéger ces différentes espèces. Dans cette optique, il s'engage à apporter tous les moyens nécessaires, matériels et compétences techniques, pour assurer la gestion de cette réserve.

Le recensement des sites de ponte permettra d'avoir une idée plus exacte de l'état de la population de tortues marines fréquentant les eaux polynésiennes.

Seront recensés dans un premier temps: Mataiva, Tupai, Scilly-Bellinghausen, Tetiaroa et Tuanake.

2 - Objectifs et résultats du projet

Ce programme a pour objectif de mieux connaître les tortues marines par des campagnes d'études et de contribuer à leur sauvegarde en impliquant les populations aux campagnes de marquage des tortues marines dans les îles (Actions de formation de personnel, information et sensibilisation de la population...)

Les tortues étant des animaux migrateurs qui se déplacent dans tout le Pacifique Sud, l'action entreprise sera bénéfique pour tous les autres pays de la région.

3 - Activités du projet

Il s'agit principalement de missions d'études à mener sur deux ans et comprenant l'assistance technique ainsi que la formation des personnes responsables à terme du suivi des opérations. Cette formation portera sur :

- le comptage des traces de femelles ;
- le comptage des femelles venant pondre ;
- la mesure des femelles et leur marquage ;
- le repérage et le comptage des mâles généralement en attente hors des passes ;
- l'observation in-situ des animaux et de tout évènement remarquable;
- le recueil des données.

B - MISE EN OEUVRE DU PROJET

1 - Moyens/inputs nécessaires aux activités du projet

- Intervention humaine conjointe des services : Service de la Mer et de l'Aquaculture, Délégation à l'Environnement, EVAAM.
- Intervention d'experts scientifiques;
- Cartographie des îles et atolls retenus;
- Acquisition de matériels divers pour les campagnes d'études (bagues, pinces, bacs...);
- Acquisition de matériel technique pour les campagnes d'études et de communication (Appareil photo, caméra sous-marine);
- Une à deux missions annuelles à l'extérieur du Territoire (PROE...).

2 - Coût estimatif

Les crédits FIDES mis à la disposition du Territoire permettront de régler les travaux des intervenants: assistance technique, suivi de l'exécution du projet, déplacement en mission dans le cadre de participation au Programme Régional de Protection des Tortues Marines animé par le PROE, déplacements en avion entre les archipels. Ils serviront également à l'acquisition de matériels.

Frais de déplacement pour les destinations suivantes: Mataiva, Tupai, Tuanake, Tetiaroa, Scilly-Bellinghausen, pour 5 personnes	800 000 F CFP
Carburant	2 000 000 F CFP
Matériel photographique	600 000 F CFP
Matériel technique divers	500 000 F CFP
Billet d'avion A/R de l'expert scientifique en provenance de Hawaii et à destination de Papeete	100 000 F CFP
Divers (Frais de gestion, frais de missions des deux intervenants, expert de Hawaii et photographe, missions éventuelles hors du Territoire, matériel de secours)	1 000 000 F CFP

L'enveloppe budgétaire sollicitée au titre du FIDES s'élève à : 5 000 000 F CFP

3 - Organisation, procédures et modalités d'exécution

Un rapport ponctuera chaque mission. Le comité de gestion de la réserve Scilly-Bellinghausen en sera destinataire à titre d'information.

Les données recueillies seront traitées et diffusées auprès des différents organismes concernés.

4 - Calendrier d'exécution

La durée totale du programme s'échelonnara sur deux années. Les campagnes de baguage se feront pendant la période de reproduction des tortues marines, c'est à dire de novembre 1996 à mars 1997 et de novembre 1997 à mars 1998. Les cinq îles retenues seront recensées au cours de ces deux saisons.

Durée de chaque mission: environ une semaine
Nombre d'îles visitées: cinq
Nombre de participants: cinq maximum

Les campagnes se dérouleront selon les modalités ci-après:

Décembre 1996 à Mars 1997

Tupai: mission globale (information et campagne de marquage)
Tetiara: mission globale (information et campagne de marquage)
Tuanake: mission globale (information et campagne de marquage)

Novembre 1997 à Mars 1998

Scilly: mission globale (information et campagne de marquage)
Mataiva: mission scindée (mission d'information et campagne de marquage en deux temps)

C - LIENS EVENTUELS AVEC D'AUTRES INTERVENTIONS ET MESURES D'ACCOMPAGNEMENT

Cette contribution à la sauvegarde des tortues marines sur ces premiers atolls constituera un exemple de réalisation concrète dans la région Pacifique en matière de protection des espèces marines menacées de disparition.

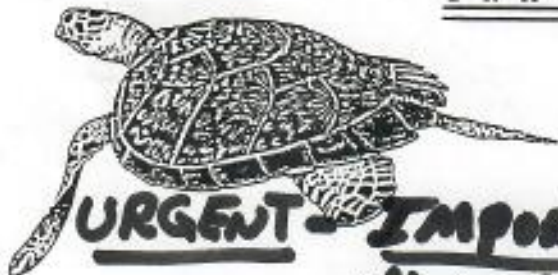
Les données recueillies constitueront une base de données importante pour le PROE dans le cadre des études portant sur la migration des tortues à travers le Pacifique.

D - EVALUATION DES RESULTATS DU PROJET

Ces études permettront au Territoire d'améliorer ses connaissances grâce au suivi plus régulier de l'activité cyclique des tortues. Elles permettront ainsi d'apprécier d'année en année l'évolution de l'activité de ponte en mettant en évidence l'augmentation, la diminution ou la stabilité du nombre de tortues venues pondre durant une période précise.

Cela donnera ainsi aux services concernés des éléments d'appréciation utiles en cas de situation conflictuelle au plan socio-économique.

L'étude du stock de tortues en Polynésie française pourra alors dans un second temps s'étendre progressivement à d'autres atolls, notamment dans l'archipel des Tuamotu-Gambier, afin d'avoir une idée plus exacte de l'état de la population de tortues marines fréquentant les eaux polynésiennes.



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

URGENT-IMPORTANT

TELEFAX FOR

MIRI TATARATA

DATE: 13 Oct. 96

FROM:

GEORGE BALAZS

(808) 943-1240
TELEPHONE EXT:

NUMBER OF SHEETS TRANSMITTED (including this page)

ONE

MESSAGE:

DEAR MIRI: THANK YOU FOR YOUR FAX.
I HAVE JUST RETURNED FROM 10 DAY'S VISIT
TO CALIFORNIA FOR MEETINGS. THANK YOU FOR
OFFER TO PAY MY TRAVEL/AIR TO TAHITI. I
ACCEPT. HOWEVER, I URGENTLY NEED TO KNOW
THE DATES FOR THE DECEMBER TRIP. THE
SCHEDULE OF ITINERARY. I HAVE OTHER
ACTIVITIES IN DECEMBER TO ACCOMPLISH HERE IN
HAWAII. SO I NEED TO PLAN THEM NOW
SO THERE IS NO CONFLICT WITH TRIP TO TAHITI.
PLEASE FAX ME THE DATES YOU WANT ME
TO GO TO TAHITI.

AFTER I HEAR FROM YOU, I WILL TELEPHONE
SUE MILLER ABOUT TAGS FOR CAMPAIGN. YES,
YOU CAN USE MY TAGS ALSO,



ALOHA, *George*
DO YOU WANT TO USE SATELLITE TRANSMITTER?

TATARATA MIRI
DELEGATION A L'ENVIRONNEMENT
B.P. 4562 PAPEETE
FAX 419252
TEL: 432409

PAPEETE, LE 04.10.96

Number of page: 5

FOR

GEORGE BALAZS
U.S. DEPARTMENT OF
COMMERCE
N.O.A.A.
FAX 943-1290

Dear George,

Sorry for my later, I was very
-busy. No problem for your language: you can
speak english and I'll answer you in french..
(It's a joke..)

the first campaign will be in december. I don't
know exactly the date for the moment. But, it
will be the first or the second week of december.

Don't worry, I'll inform you in the end of
this month.

Is it OK if we pay you travelling expenses
and your hotel? Would you like participate
at all the campaigns? In my budget,
everything has been organized for that. We'll
have 5 missions. We'll try to involve the
population in the tagging, so, we'll let
them some tags and applicators. What do
you think about this idea?

Is it possible for you to contact Colin Limpus, because we have write him a letter to obtain one import permit into Australia, and we have no answer.

And for the tags, do you think we have to contact Sue to get us more tags and applicators?

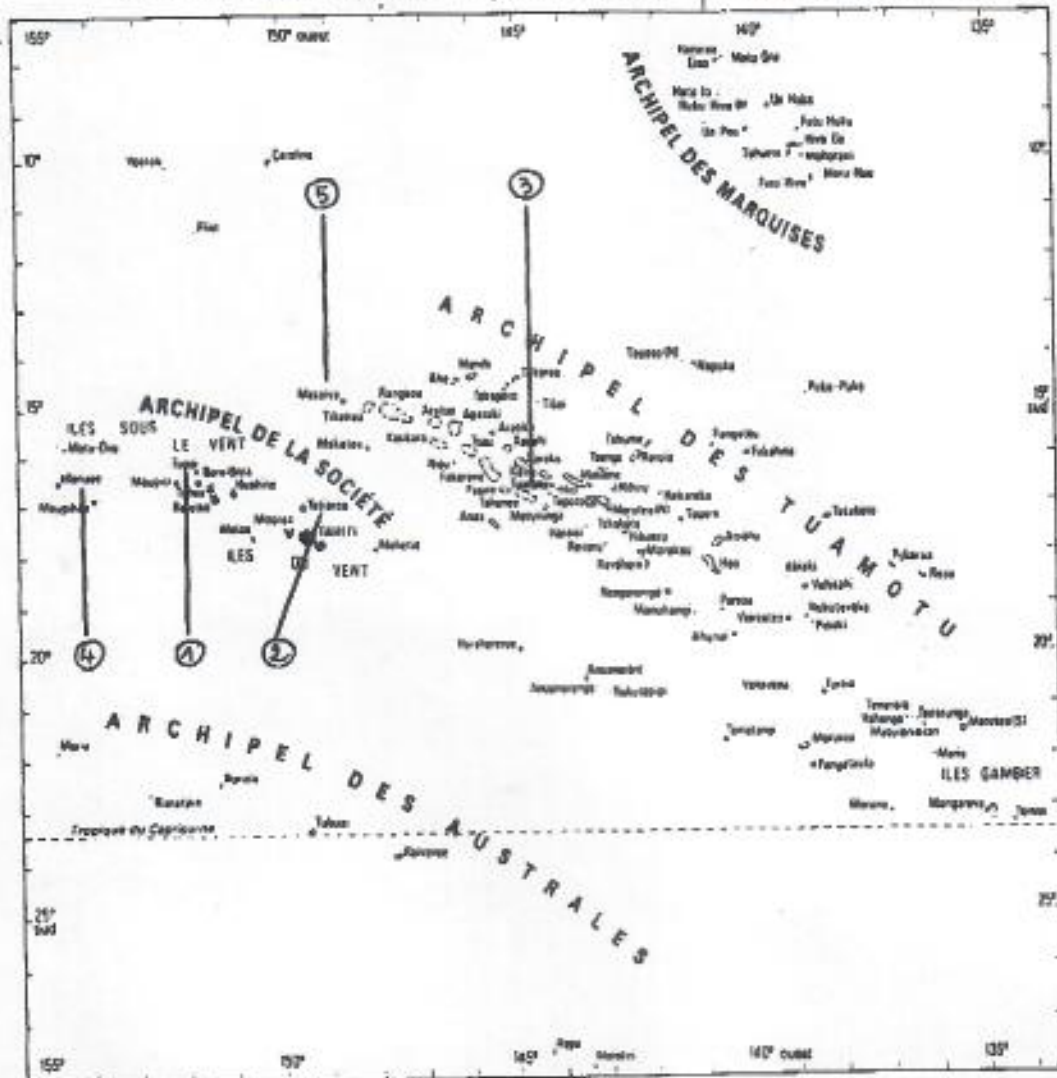
I fax you the calendar of these campaigns. Write me if you have questions and some advice.

Best regards,

Mimi.

Fig. 2: Carte de la Polynésie Française.
Situées entre 8° et 26° de latitude sud et 134° à 155° de longitude ouest, les 118 îles de Polynésie constituent la terminaison orientale des archipels qui parsèment l'immense océanique du Pacifique sud. Le domaine maritime de la Polynésie Française couvre quelque 6 millions de kilomètres carrés, mais les terres émergées ne représentent

que 4 000 km² de superficie. Les hauteurs et atolls sont groupés en quatre archipels distincts : les îles de la Société avec Tahiti (1 043 km²) (14 îles) ; les Australes (7 îles et atoll) ; les Marquises (13 îles et atoll) ; Tuamotu-Gambier (84 îles). Tuamotu, le plus vaste de tous les archipels, comprend 77 atolls dispersés sur plus de 2 000 km de long du nord-ouest au sud-est.



1.2 Les atolls des Tuamotu.

- CALENDAR
- ① TUPAI : DECEMBER 1996
 - ② TETIAROA : JANUARY 1997
 - ③ TUANAKE : FEBRUARY 1997
 - ④ SCILLY (MANUAE) : NOVEMBER 1997
 - ⑤ MATAIVA : JANUARY 1998

CONTRIBUTION A LA SAUVEGARDE DES TORTUES MARINES
MISSIONS D'ETUDES ET DE BAGUAGES
CALENDRIER D'EXECUTION
 (FIDES tranche 95)

DEC 96	JANV 97	FEV 97	NOV 97	JANV 98
TUPAI (1 semaine) Avion + Bateau ONE WEEK	TETIAROA (1 semaine) Avion ONE WEEK	TUANAKE (1 semaine) Avion + Bateau ONE WEEK	SCILLY (15 jours) Avion + Bateau TWO WEEK	MATAIVA (1 semaine) Avion ONE WEEK

Fait le 18/9/1996

Taturata Miri
Délégation à l'Environnement
B.P 4562 Papeete
Tahiti
Polynésie française
Tél. 43 24 09
Fax. 41 92 52

Papeete le 14 août 1996

to

Dr. Colin Limpus
Queensland Department of
Environment
P.O Box 155,
Brisbane (Albert Street), 4002,
Australia
Fax: 61 732 276 386

Dear mister Limpus,

In accordance to our marine turtles conservation programme, we would like to undertake a genetical study based on the collection of samples from French Polynesia.

Thus, we need you to send us an import permit into Australia, as well as recommendations concerning the packaging of the samples.

In case of recently dead turtles, is it possible to collect samples, and if so, could you tell us what conditions are required (freezing?...).

Yours sincerely,



Stone Remains in the Society Islands
K. P. Emory 1933

BORABORA

PLACE NAMES

The eight original districts of Borabora (fig. 115) were Nunue, Tiipoto, Tevaitapu, Hitiaa, Anau, Amanahune, and Ativahia. At present the districts have been reduced to three: Nunue, comprising the old districts of

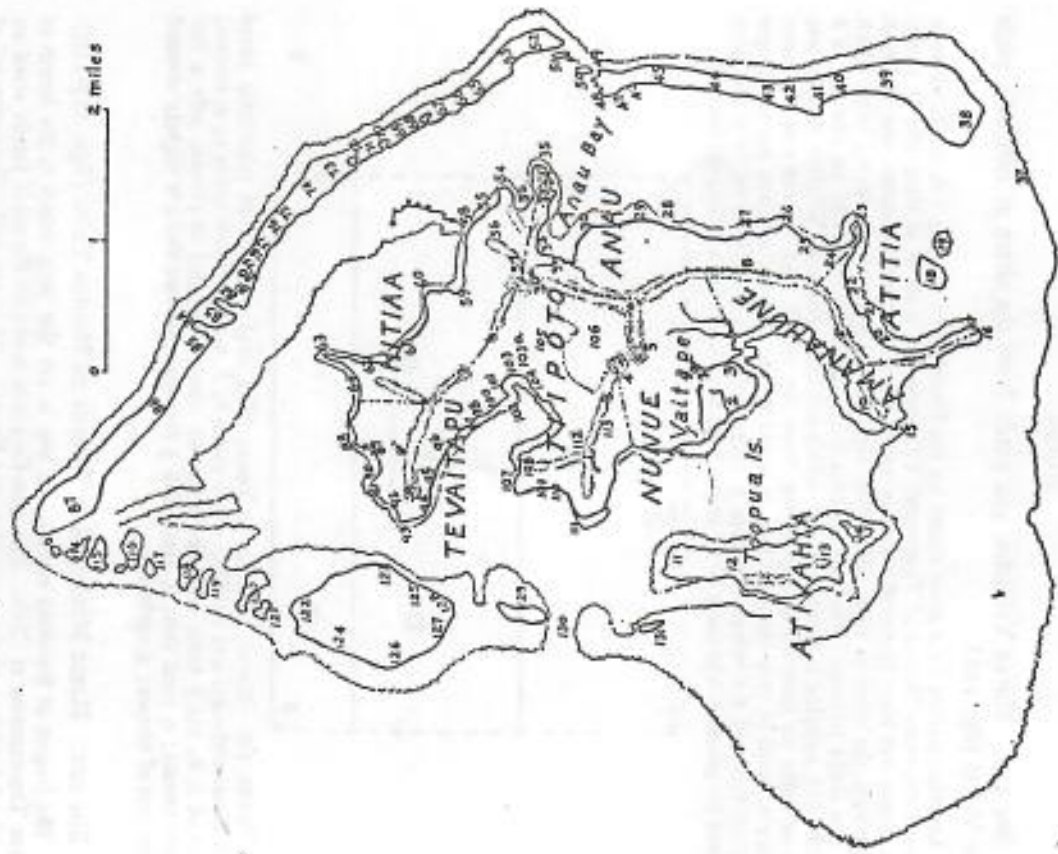


FIGURE 115.—Map of Borabora traced from survey made by Duperrey (16) in 1823. Numbers refer to place names (p. 161).

Amanahune, Ativahia, Nunue, and Tiipoto; Anau, comprising Atitia and Anau; and Tevaitapu, comprising Hitiaa and Tevaitapu. The list which follows contains the place names of Borabora learned from natives in 1925 and 1931. Numbers refer to the map (fig. 115).

- | | | |
|---|----------------------------|-------------------------------------|
| 1. Vai-ti-pe | 41. Motu O'oru | 87. Paharire |
| 2. Mata-pae | 42. Vai-pa'a-ro | 88. Pa-pua-a |
| 2a. Vai-ati | 43. Vai-o-re'a | 89. Vai-rupe |
| 3. Tura'a-pūo | 44. Te-pae | 90. Uru-maru |
| 4. Te-tara-o-Paia | 45. Tiare-paumoa | 91. Apu-to |
| 5. Otenanu | 46. Pa'a-tutae | 92. Apo'o-varu |
| 6. Te-ana-o-pe'a | 47. Motu-roa | 93. Tere-i'a |
| 7. Te-ara-te-ati (name of trail) | 48. Motu Tape | 94. Mahu-to'a |
| 8. Oro-peru | 49. Toro-piro (canoe pass) | 95. Fare-tou |
| 9. Vero-liti | 50. Motu Tupe | 96. Vai-nia |
| 10. Po'o-fai | 51. Apo'o-ma'o | 97. Vai'a-hau |
| 11. Tu-peti | 52. Ta'a-raua | 98. Fare-to'a (a marae) |
| 12. To'opua (name of whole island) | 53. Vai-toto | 99. Mau'a Popoti |
| 13. Tehou | 54. Otu-oredho | 100. Farca-ra'a |
| 14. To'opua iti | 55. Tia-noa | 101. Papara-ti |
| 15. Rai-titi | 56. Vero-ia | 102. Motu Olo |
| 16. Matira | 57. Mata-hua'a | 103a. Fa'a-nui Village |
| 17. Mai-o'o | 58. Pufu-ia, or Puhia | 104. Fata-rere |
| 18. Piti-u'u-uta | 59. Terao-oa | 105. Teroma (stream) |
| 19. Piti-u'u-tai | 60. Otu-o-rau | 106. Te-pare (plateau) |
| 20. Tahana | 61. Ana-nape | 107. Fare-nua, or Fare-piti (Point) |
| 21. Taurero | 62. Po'o-rehau | 108. Mau-tau |
| 22. Fao-pore | 63. Ta'ih | 109. Pirlo |
| 23. Pa-ouca | 64. Paepae-pupure | 110. Fa'a-tahi (Fa'a-tahi) |
| 24. Toerua | 65. Te-marumaru | 111. Turai-mato, or Pahua |
| 25. Apua-pa (name of trail) | 66. Vahi'a-utu | 112. Po'o-po'o-ure-roa |
| 26. Ara-ara-pa'u-pu'u | 67. Te-miromiro | 113. Fa'a-tohora |
| 27. Pererau-fai | 68. Te-nanamu | 114. Havae |
| 28. Anau Village | 69. Te-miromiro | 115. Pito-rave |
| 29. Ta'a-hio | 70. Tuatela'ao | 116. Motu Tane |
| 30. Apo'o-fe'e | 71. Te-mahu | 117. Pa'ahi |
| 30a. Te'a Tac (trail) | 72. Vai-pi-rari | 118. Vana-nui |
| 31. Vai-ro | 73. Tia-je | 119. Mo'ute |
| 32. Aihau-tai | 74. Fenua-piha | 120. Motu Apiti |
| 33. Toru-torea (name for three geological stacks) | 75. Te-vai-pohue | 121. Vavare |
| 34. Fitiu | 76. Fenua-piha | 122. Rauoro |
| 35. Tuisa-hora | 77. Fa'a-raerae | 123. Vavarufi |
| 36. Ha'a-maire | 78. Vai-o'opu | 124. Manini |
| 37. Piti-a'au | 79. Taura-otaha | 125. Tevai-roa |
| 38. Te pu-horo | 80. Te-uma-a-tare | 126. Otu-ohu-hoo |
| 39. Te-puna | 81. Te-rurumi | 127. Otu-ohu-piti |
| 40. Te-hura | 82. Are-tai | 128. Otu-ohu-toru |
| | 83. To'opai-rai | 129. Motu Ahuna |
| | 84. Haru-totara | 130. Te-ava-nui (pass) |
| | 85. Muri-ete | 131. Motu Tapu |
| | 86. Te-hota | |

RUINS

Site 221. Marae Vaiotaha, 300 yards from the shore at Ellacott's place near Vaiati (fig. 116).

Location marked by a great square on the French map of 1823 (16, p. 6), where it is given the name "Moani of Taouinata" (Toimata was a sister of King Mai in 1823). The marae has been destroyed; nothing remains but two upright stones, one of basalt 3 feet high, the other of coral and not so high, facing on a roughly paved court which has two slight terraces. The two uprights might be facing stones of an *ahn*, or, as I now believe, uprights in front of an *ahn* which has been removed. Whether the *ahn* was low or high, we have no way of telling from our record. As the ruins of the court occupy a width of only about 42 feet, it would appear that the *ahn* was not any longer than 42 feet and the marae therefore a very small one. The land up to it has been cleared for planting, and many of its stones have been taken for a graveyard near by.

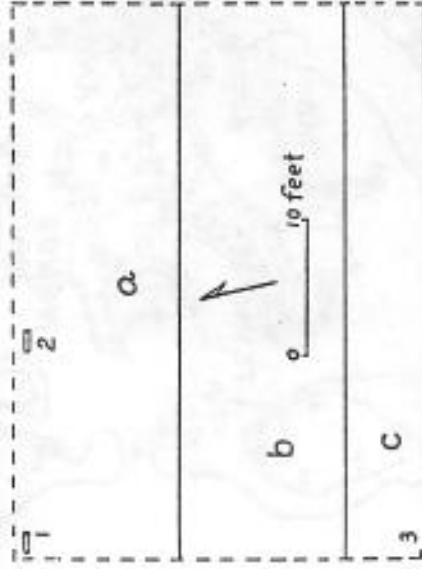


FIGURE 116.—Marae Vaiotaha at Vaiati (Site 221): *a*, terrace apparently paved with stones and coral and standing 1 foot above *b*; *b*, terrace 1 foot above *c*; *c*, terrace; front of *a*, *b*, and *c* faced with single line of stones embedded in ground, only a few stones remain; 1, coral slab; 2, basalt slab 3 feet high, surface about it slightly elevated above rest of terrace; 3, upright.

Site 222. Marae Marotetini or Fareru on Mautau Point (figs. 117-119).

The largest of Borabora maraes. Its *ahn* is 141 feet long, which is the length of marae Tapuapuata at Opoa. Two post-European tombs of the royal family stand on the inland boundary of the court of marae Fareru. They are evidently constructed of the limestone slabs and other stones of its *ahn* (fig. 119). The southern tomb was pointed out to me as that of King Tapoa; Handy was told that two boxes with bones, a *ware*, and other clothing of the *arii* were taken out of this tomb years ago to be deposited in a secret cave in the mountain. At least two other such tombs, apparently constructed from the ruins of maraes, lie on the shore between Vaitape Village and this point. The natives are reluctant to go near them. Inland of this marae, I was told by an elderly woman, was a marae called Fare-o-tihi. I believe she was referring to the *fare tu* (image house) of this marae.

Site 223. Marae Farcopu on land Faretoa, Tevaitapu District (fig. 120).

Although the road has been run 15 feet from the inland face of the *ahn* of this

marae, this face of the *ahn* has suffered comparatively no destruction. About half of the seaward slabs, however, have been removed. It is more than likely that these slabs as well as most of those of the maraes on the west coast of Borabora were commandeered by the missionary, J. M. Orsmond, for material for the long coral jetties built at Vaitape Village. Two of the facing slabs of the inland face are carved with turtle petroglyphs (pl. 20, *d*; fig. 131, *d*, *e*).

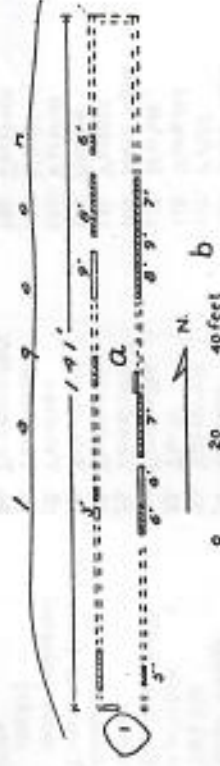


FIGURE 117.—Marae Marotetini or Fareru on Mautau Point (Site 222): *a*, *ahn* faced with limestone slabs and filled up to a height of 2 to 3 feet with coral and basalt stones, shaded blocks represent fallen slabs, figures 3', 8', etc., give heights of slabs; *b*, court strewn with basalt stones which probably formed a rough pavement, low stone wall parallel to the *ahn* but 132 feet from it marks eastern boundary of court; 1, fallen limestone slab 9 feet long, 9 feet wide, and 2 feet thick.

Site 224. Marae Faretoa, at Faretoa, Tevaitapu District.

A few feet north of marae Farcopu are five limestone blocks, 8 inches to 2 feet high, standing in a line parallel to the shore and 20 feet from it. This seems to mark the *ahn* of a marae, and I was told that this was the location of marae Faretoa.

Site 225. Marae Pupure, at Paepaeupure, Hitiaa District. A low stone platform measuring 66 feet along the front and traceable inland a distance of 36 feet, paved with flat basalt blocks.

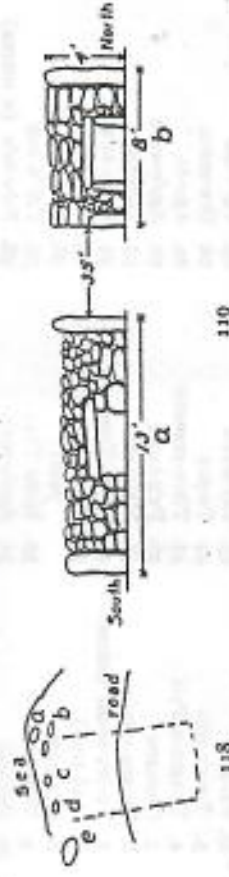


FIGURE 118.—Sketch plan of marae Fareru (Site 226) made by Tati Salmon in 1899, showing relative position of upright stones purporting to represent the five principal families of Borabora chiefs: *a*, Niol, Tuara, for the chief Puni; *b*, Ruau, for Pa and Vahirua, Oburchaapa and Taharae; *c*, Vahine-hai-mire, Teuraitera; *d*, Vaaiti-matato; *e*, Teiva.

FIGURE 119.—Cross section of post-European royal tombs at marae Fareru or Marotetini, Fareru Point: *a*, vault 3.5 feet wide, 8 feet long, 2 feet high, lying on the floor was a coffin lid studded with some brass tacks, limestone slabs of outer facing of tomb joined with lime plaster; *b*, vault 3 feet wide, 5.5 feet long, 1.5 feet high.

Site 226. Marae Fareura or Farepiti, extending out into the water north of Paepaeupure, Hitian District.

The *ahu* is 46 feet long, 6 feet wide, 5.5 feet high. About half the facing slabs, all of which are of limestone, are present. The *ahu* stands on the lagoon side of a low platform which projects 6 feet beyond it. The area for 25 feet on the inland side of the *ahu* is paved; the distance for 33 feet farther back is enclosed by a line of stones embedded in the sand. An upright basalt stone, 2 feet high, stands exactly midway between the sides of the court and at the very opposite end from the *ahu*.

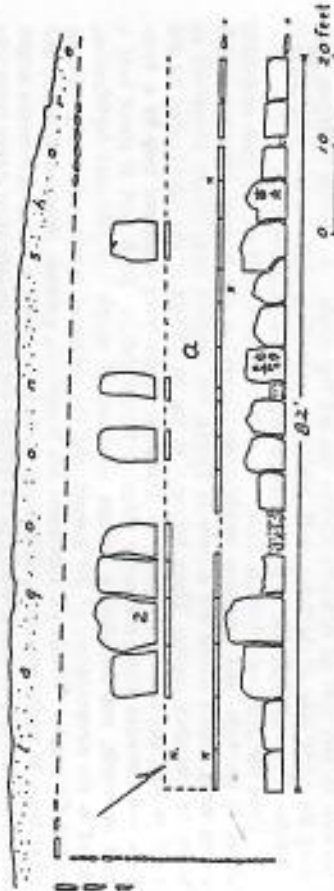


FIGURE 120.—Marae Fareura at Faretoa (Site 223): a, *ahu* filled to height of 1 to 3 feet with small coral and basalt stones, faced with limestone slabs and set on lagoon end of low platform; slabs shown in profile; two on north face have turtle petroglyphs; b, wall 1 foot high; c, slab 7 feet high.

Site 227. Enclosure at Auanape, east coast of Hitian District (fig. 121).

Lying parallel to the beach road is an unpaved rectangular enclosure of a line of embedded stones. The corners have the irregular, jutting shape shown in the plan (fig. 121). Set on the corners stood one to three limestone slabs, all but one of which are now fallen. The stones of the sides of the enclosure are basalt dike stones set on edge or on end and ranging from 0.5 to 1 foot high, 1 to 2.5 feet long.

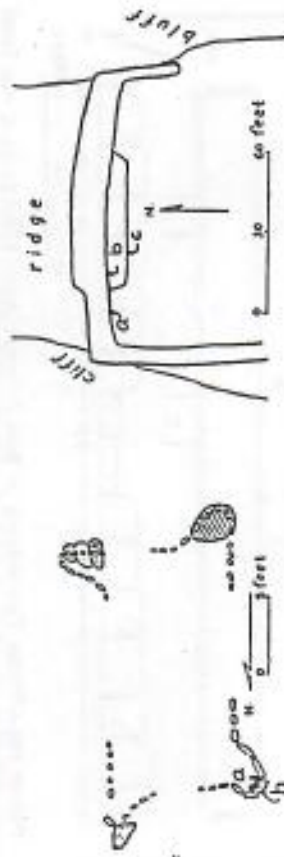


FIGURE 121.—Corners of enclosure 30 by 75 feet of stones embedded on edge (Site 227); shaded ovals are fallen limestone slabs: 1, two basalt uprights; 2, coral slab standing on edge; all other stones basaltic.

FIGURE 122.—Sketch plan of stone wall fortification (Site 235): a, 7 feet high; b, 4 feet high; c, 3 feet high.

Site 228. Marae Nonohaura, on land Vairo, Anau District (fig. 123).

One of the two best-preserved marae on the island. The slabs were originally fitted tightly together, the curve of one side of one slab fitting snugly a concavity of the side of the adjoining slab. The marae stands on the end of a low, flat ridge and a quarter of a mile from the shore. A few human bones were seen lying on the fill of the *ahu*.

Site 229. Marae, shore of south side of Anau Bay.

The *ahu* is 78 feet long, 6 feet wide, and lies with its long axis 20 degrees east of north. It is faced with limestone slabs not more than 2.5 feet high and 3 feet wide. The area adjoining the west or inland side of the *ahu*, out for a distance of 9 feet, is enclosed with a line of small stones embedded in the ground.

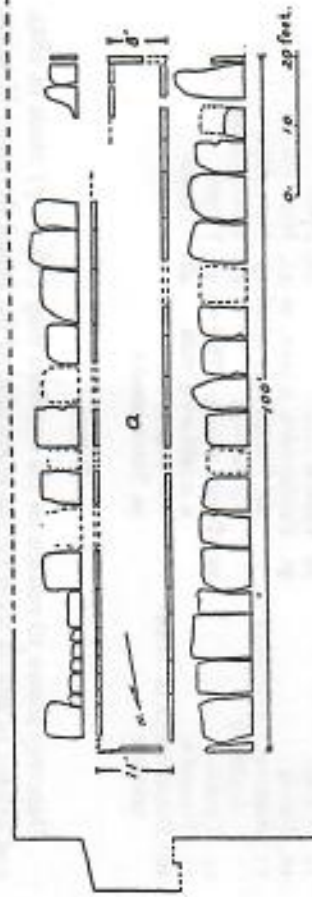


FIGURE 123.—Plan and side elevations of marae Nonohaura at Vairo, Anau (Site 228): a, *ahu* faced with cut and fitted limestone slabs and filled to height of 2 to 4 feet with small basalt stones; outlines of the slabs drawn to scale, fallen slabs represented as standing (4 slabs fallen on west face and 5 or 6 on east face); *ahu* rests on seaward end of low earth platform 126 feet wide along front, 1 to 3 feet high, faced with basalt stones.

Site 230. Marae Manunu, at the very head of Anau Bay.

The *ahu*, which is 51 feet long, 5 feet wide, 3.5 feet high, stands on sandy, level ground. The facing slabs are of limestone. The long axis of the *ahu* lies 20 degrees east of north. Traces of a pavement appear on the inland side of the *ahu*.

Site 231. Marae between marae Manunu and the next marae north, Fareura, Anau District. The *ahu*, which is 75 feet long, lies in a long, shapeless heap.

Site 232. Marae Fareura, on the shore, Anau District.

The *ahu*, 44 feet long, 6 feet wide, stands 10 feet from the shore and parallel to it. It is faced with limestone slabs not more than 3 feet high. Many slabs are missing. The long axis of the *ahu* lies due east and west. Adjoining the inland face of the *ahu* is a pavement of rough basalt stones which extends back 39 feet.

Site 233. Marae, north shore of Anau Bay.

A few limestone slabs of an *ahu*, 69 feet long, 6 feet wide, mark the site of this marae 20 feet from the water's edge. The slabs are not more than 2 feet high, and a single slab closes each end. The *ahu* lies approximately north and south.

Site 234. Marae Tamariteaoa, on land Aihautai, Anau District (fig. 124; pl. 16, B). The best-preserved of Borabora maraes. It lies close enough to the lagoon waters to be reached by high tide. A copra plantation now encroaches upon the court.

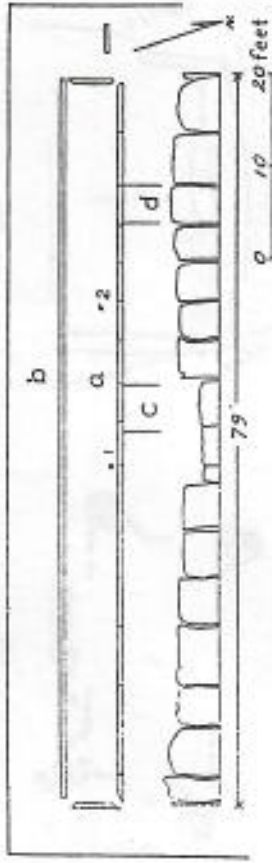


FIGURE 124.—Marae Tamariteaoa on land Aihautai, Anau (Site 234): a, *ahu* faced entirely with limestone slabs (pl. 16, B), all of which are present, outlines of slabs on north face are given drawn to scale, *ahu* filled almost to top with small coral and basalt stones; b, front part of low platform 1.5 feet high, paved on this side with basalt flagstones 1 to 1.5 feet in diameter, front faced with bottom course of large basalt stones and second course of smaller stones; c, d, platforms or flat walls 1 foot high extending 10 feet or more; e, places where fragments of human bones were seen.

Site 235. Fortification named Pa-tahi, at Teparé, on the ridge dividing Anau District from Tipoto District and south of the path, Teatae, leading from one to the other (fig. 123).

A thick, high, steep, loosely built wall has been erected across the ridge blocking the approach to that part of it which widens toward the south. A narrow platform runs along the inner side of the front wall, evidently a standing platform and probably for riflemen. Tyerman (56, vol. 2, p. 21) visited two forts on Borabora:

"Upon the great mountain of Paia, . . . rude fortresses built on the least accessible slopes of the hills, and enclosing considerable spaces of the surface, intersected with strong walls, which served not merely as fences, but supplied ammunition wherewith to annoy an ascending enemy. These belonged to the two kings of the island; that on the south to Mai, and that on the north to Teiaaora. They were separated only by a foot-path, and extended along the rocky ridge of the mountain. Each pari is about half a mile in length, and furnishes a curious specimen of rough but effectual fortification, suited to the circumstances of the ground, and the modes of warfare formerly existing among the people. Within the enclosures are breadfruit, coconut, plantain, vi-apple, and other trees, to supply provisions, with water springs, on which a besieged garrison might subsist for months; so that it would be as difficult for their assailants to starve them into surrender as to storm their lines. In one place was the wreck of an old canoe, built in the last war, and hid there to appease the anger of some god."

Site 236. Petroglyphic boulders at Vaiati.

Among numerous boulders on this land, about a quarter of a mile inland, there are two which are carved. The first is on the east bank of Vaiati brook and 30 feet from the shore. The second is carved with the petroglyphs shown in figure 131, a, c, and plate 20, B. The second petroglyph is older, is 150 yards northwest of the first and on the opposite side of the brook, 15 feet from it. The carved south face is shown in figure 131, b.

The first boulder, called *oiaï homa* (turtle stone), is the mythical parent of the island and of the island's chiefs. This stone is supposed to have slept with the cliff Hobot-rāi, which is the cliff of Mount Pain, and from their union Vavau was born (25).

MAUPIITI

PLACE NAMES

The map of Maupiti (fig. 125) shows place names and location of some of the maraes. The place names are from native informants and the French map of 1823 (16, pl. 7):

- | | | |
|--|---|---|
| 1. Hotuparaoa, or Hutu-paraoa Bluff | 17. Urufaaitu, highest peak on the island. The name is Teurataha | 33. Teanotemoo |
| 2. Terama Peak | 18. Maua Po | 34. Maotea and Maoterari, two great rocks at the water's edge representing brothers, that on the west the older |
| 3. Tapoa Village | 19. Putua Hill | 35. Aano, a large rock on the beach |
| 4. Heturiritea Peak | 20. Tapelu | 36. Tehotupuwaiwai, ridge dividing Fanoa from Tautoi |
| 5. Farauuru | 21. Paatanui Hill | 37. Vaibahu |
| 6. Urcuroiha Peak | 22. Havaï | 38. Vanaroa |
| 7. Terenu Peak | 23. Nuupure marae | 39. Tehiva |
| 8. Mua Fareiare | 24. Tiranoo Peak | 40. Farepala |
| 9. Paetaha. The region in the vicinity is denominated Paimua on the French map, 1823 | 25. Vaipaha (pronounced Wai-paha) | 41. Pao |
| 10. Tauvaa (pronounced Kauvaa), or Faril Hill | 26. Haamarumaru | 42. Motu Aie |
| 11. Haranai | 27. Paitu | 43. Motu Ahi |
| 12. Pohiva | 28. Vaimariri Hill | 44. Tarahu-Apouhi |
| 13. Anutaa (pronounced Anukaa) | 29. Puroo | 45. Faretea |
| 14. Teiaaha | 30. Taharai Hill | 46. Vaisotaha |
| 15. Teponaha | 31. Pahihiroiro, a rock, on the French map called Terciavarua | |
| 16. Hotuavaoroa or Hutu-avaoroa | 32. Teaus, a rock. This is a neighboring rock was pointed out to me as Tuturaporeho | |

RUINS

Duperrey shows 16 maraes on his excellent map (16, pl. 7) made in 1823, and assigns to one of them on the north side of the island the name Nuupere (Nuupure). The name of another Maupiti marae, to which an ancestor of King Mai of Borabora belonged, was Teahutapu (32, p. 260). Tyerman (56, vol. 2, p. 13) must have been misinformed when he was told that there were no less than 220 maraes on Maupiti. An exhaustive inquiry has netted the names of only 35 maraes. Handy and I saw the remains of 10 or 11, all in a very poor state of preservation. Most of them consisted of a rectangular pavement extending out from the shore. The platforms were mainly or entirely basalt stones. The *ahus* were faced with limestone slabs about 3 feet high and standing on the lagoon end of the platform. The platforms were neatly paved with basalt flagstones.

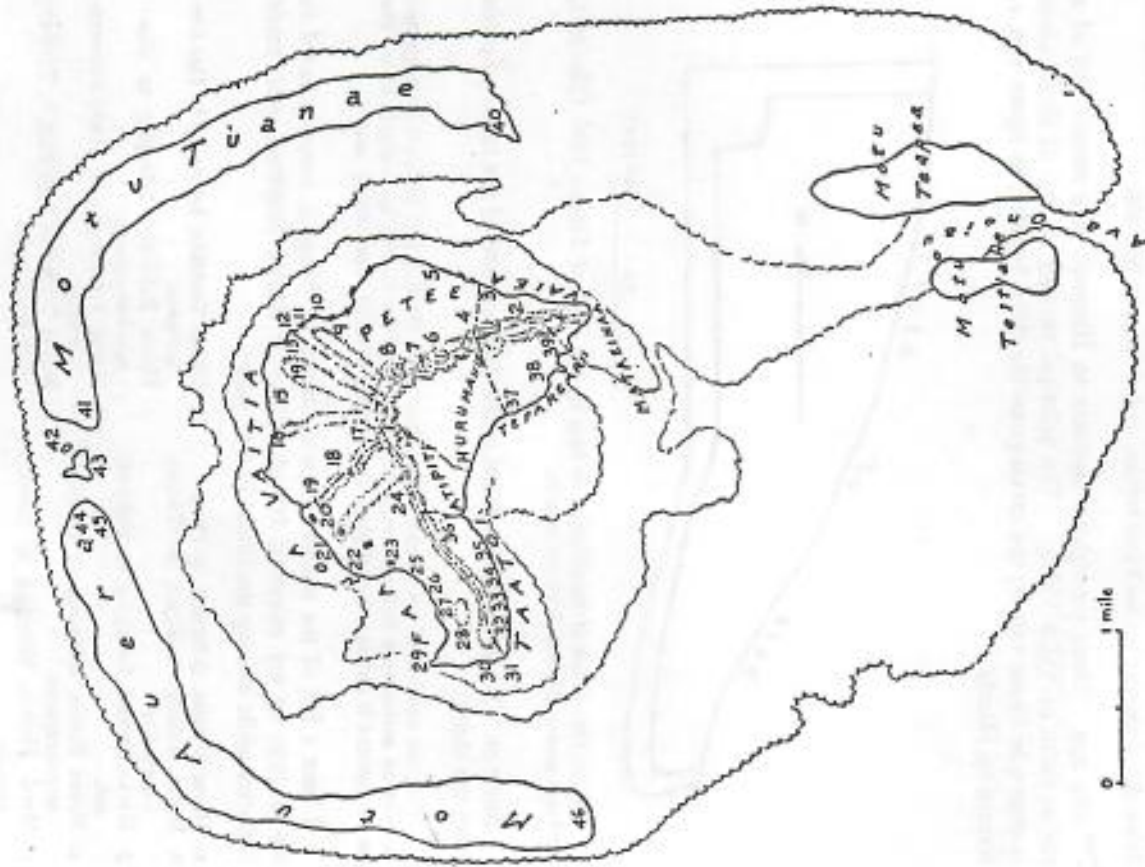


FIGURE 125.—Map of Maupiti. Names of districts are from native informants; numbers refer to place names (p. 167).

Site 237. Marae Vaiahu, Tefarearii District (fig. 126).

A platform of basalt dike stones built out to low tide mark on the lagoon. Its height ranges from 1 to 4 feet. Across the lagoon end of the platform is a line of three or four limestone slabs on edge, undoubtedly marking the inland face of an *ahu*. In a vault (fig. 126, *b*), it is said, until recently the fishing gods were put at times of fishing. For the setting of the marae in relation to the chief's house, the original marae Teparooa, the marae Pectaus, the canoe jetty, the two maraes next to it, and to the assembly ground, see Handy's plan (39, fig. 12) of Tefarearii. Record by Handy.

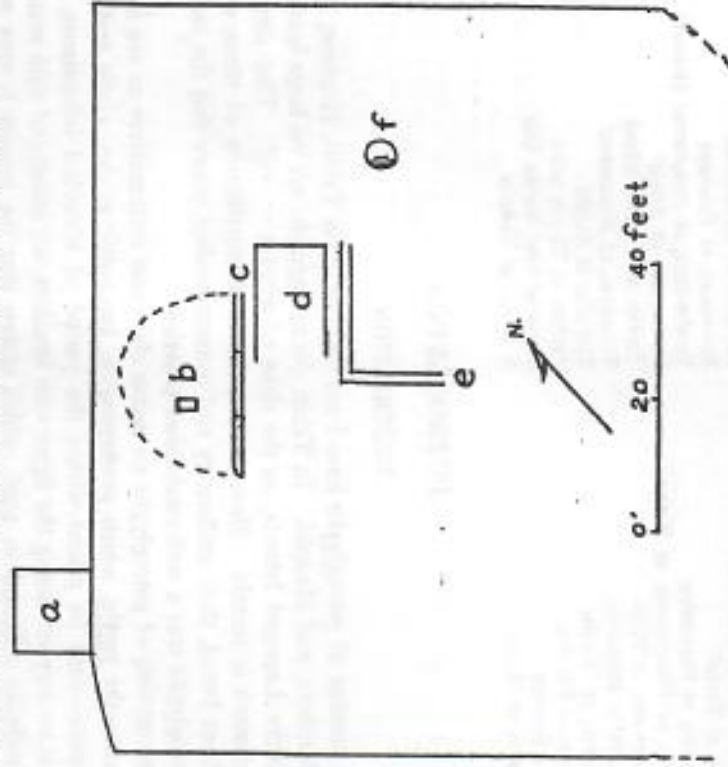


FIGURE 126.—Marae Vaiahu (Site 237), platform built of natural basalt blocks; *a*, extension recently built; *b*, vault lined with limestone slabs about 2 feet deep, 3 feet long, 2 feet wide, now empty, spot elevated above general level of platform indicating that vault was embedded in fill of *ahu*; *c*, three or four limestone slabs on edge marking inner face of *ahu*; *d*, slightly depressed area finely paved with pebbles; *e*, small wall; *f*, pit 4 feet deep, 4 feet in diameter, lined with rough stone; human leg, collar, and thigh bones as well as pig jaws and teeth lay in bottom of pit.

Site 238. A *pa* (fortification) on the east slope of Terama Peak, at the base of a bluff overlooking Vaiea Village (fig. 127), and rock named Tumupuaa.

The *pa* consists of a loosely built wall enclosing an area of steeply sloping ground, 12 to 54 feet wide, 135 feet long. At one of the outer corners of the wall is a platform built up flush with the top of the enclosure.

On the opposite side of Terama Peak and resting on the slope above the bluffs of Tefarearii District is the great rock named Tumupuaa. In its shelter and round about it are the remains of native ovens, probably used by the refugees of the fort. On the west side of the rock is a house terrace, 30 feet long, 15 feet wide, 3 feet high along the front. It is faced with stones loosely laid up and filled with earth and small stones. Below this is another similar house terrace, 24 feet long, 15 feet wide.

Site 239. Three petroglyph boulders at Haranui, in a stream bed of a ravine north of Vaiea Village. The principal carving on two of these stones is shown in figure 130, *b*; the carvings on the third boulder, in figure 129, *c*. Record by Handy.

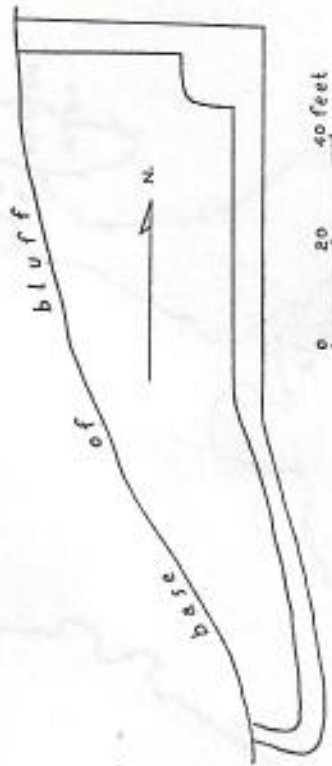


FIGURE 127.—Plan of fortification at base of east bluff of Terama Peak (Site 238), northeast corner is 6 feet high on outside.

Site 240. Tomb on the northeast coast, just seaward of the road, 50 yards from the shore.

The ruin consists of six or seven limestone slabs about 3 feet high set on edge and forming an enclosure 6 feet square partitioned across the middle by a single slab. The natives pointed it out as a burial place and strictly avoided approaching near it.

I have a list of the names of some marae of Maupiti, communicated to me in 1930 by my esteemed friend, Monsiur André Ropiteau, who made inquiries while visiting the island in that year:

1. Marae Vaiaha, dedicated to Hiro.
2. Marae Telatu, belonging to Taurun-haanoelau.
3. Marae Faretai, belonging to Valua-tai-nui.
4. Marae Faute, belonging to Tebatua-i-te-pu-araora.
5. Marae Hanau, belonging to Mauate-arao-tua.
6. Marae Toahihia, belonging to Ope-i-te-ara-uroa.
7. Marae Rai-faairi, belonging to Manna-tahi-i-te-ranaava.
8. Marae ? belonging to Puaki-i-te-papa-i-uruva.
9. Marae Teoosarai, belonging to Terü-re-i-te-va-tamoo.

Henry (32, p. 129) says that the chief deities presiding over Vaiahu were Tu and Taaroa; de Ilovis (7, p. 44) gives the god as Tut-i-vaiahu (Tu-i-

Vaiahu). To this list I can add from an old manuscript of lands belonging to the Mai family of Borabora, these two marae: Marae Te-tai-farii on the land Atipau, Taato District; Marae Tau, Taato or Atipiti District.

In 1932 Monsiur Ropiteau again visited Maupiti and secured a list of 23 additional marae, which list, together with some very valuable notes, he has published in the bulletin of the Société des Études Océanienne (47, pp. 120-129). The additional marae are:

Ahiti-rai, at Ahiti-rai	Pihatohoro, or Farerua, at Fatou
Ahuncce, at Hutuse	Poua, at Ahi-faaroa
Ati-pae, at Ati-pae, inland	Rai-mae, at Ahi-faaroa
Faabei, at Faabei	Rai-vanaa, at Faretupa
Fare-miro, at Fare-miro	Te-ahu-tapu, at Apapaterai (inland)
Farerua, or Pihatohoro, at Fatou	Te-faataca, at Atipiti
Harumaruma, at Tafoi	Tereva, at Tereva, inland
Manutahi, at Manutahi	Tetoosarai, at Hurumana
Maramea, at Maupai	Tiahinia, at Atipiti
Nunupure, at Faretau	Vachan, at Te-pae-arioi
Otu, at Taurere	A marae near marae Otu
Patu-poi, at Mahui	A marae at Vaimoo

PETROGLYPHS

DESCRIPTION

A number of petroglyphs have been discovered on Tahiti, Huahine, Raiatea, Borabora, and Maupiti. In Tahiti the petroglyphs are on large boulders, and in the Leeward Islands, on the slabs of marae as well. That they are not common is certain. Nevertheless, the wide distribution of those which have been found, their uniformity and conventionality, prove that the making of petroglyphs was a well-established practice.

The carving of petroglyphs on marae slabs and such motives as are found on them—the turtle, which predominates, concentric circles, circle and dot, and canoe—may be placed within the period of historical inhabitants, but there is no way of dating the figures on boulders not associated with marae. The tradition collected in 1926, which claims that the human figures on a boulder at Tipaerui, Tahiti (Site 6), were carved in memory of the wife and twin children of one Tataurui who had taken refuge in Tipaerui has too much the ring of a local legend rationalized to fit the carving to be taken literally. Yet no very great age can be ascribed to this well-delineated carving on a flat rock in a steep brook bed where erosion is going on at a rapid rate.

Most petroglyphs are wrought by pecking broad, rather deep grooves. A few of the grooves are so broad and shallow as to lift the spaces between into low relief and shift the attention from the outline to the body of the figure. I doubt that the artist aimed at producing this effect, as it is only perfect in two figures (fig. 130, *d*, nos. 3, 4) on rough limestone slabs where narrow

two symbols which might be interpreted as representing the male and female sexual organs, or the male and the placenta.

Most of the turtle figures are simple outlines, but some have on their backs conventional markings. In these the cross predominates, and the circle, or concentric circles, or a combination of cross and circle, are used. A median vertical line crossed by two or more horizontal lines may represent the division of the shell into plaques, but the designs so individualize the turtles as to convey the impression that they indicate specific kinds of turtles or are symbols appropriated by individuals. However, there may be behind this decoration only a desire to fill the empty space.



FIGURE 129.—Petroglyphs: a-b, at Tipaerui (Site 6), each 16 inches high; c, on boulder at Vatea, Maupiti, from photo by E. S. C. Handy.

Plain circle petroglyphs are rare. Plain circles with a dot in the middle, or a circle within a circle, are more common. Series of concentric circles running up to four and usually with a dot in the middle are also frequently found.

Canoe petroglyphs were discovered solely on three adjoining slabs of the seaward face of the *ahus* of marae Rauhuru at Maeva, Huahine (fig. 130). The four canoes on these slabs taper slightly upward at each end after the manner of the Society Islands war canoe. Resting toward one end of two of the canoes is a rectangle which suggests remotely the little house standing on the forward part of double traveling canoes or the fighting platform of war canoes. A young native spectator exclaimed, "Look at the smoke stacks!" But the native aversion to handling these marae slabs, as well as the weathered appearance of the grooves, argues against the modernity of the carving.

The supposition that certain figures on Tahiti, Raiatea, Borabora, and Maupiti (fig. 128, a-g; 130, b; 131, a) represent headaddresses rests on their resemblance to pyrogravures on a bamboo quiver from the Society Islands in the British Museum (fig. 133) which unmistakably represent a type of headaddress common in the Society Islands as part of the chief mourner's costume. It will be seen, if the headaddress as figured by Webber (13, vol. 3, p. 259), the pyrogravure (fig. 133), and the Raiatean petroglyph (pl. 19, b) are com-

lines would have been lost. The figures on the cornerstone of the chief's house platform at Tevaitoa (pl. 19, B) are sharply incised.

Human and turtle figures, concentric circles, representations of masks and headaddresses, are the motives employed in Tahiti. The Leeward Islands add canoes and simple circles to these figures.

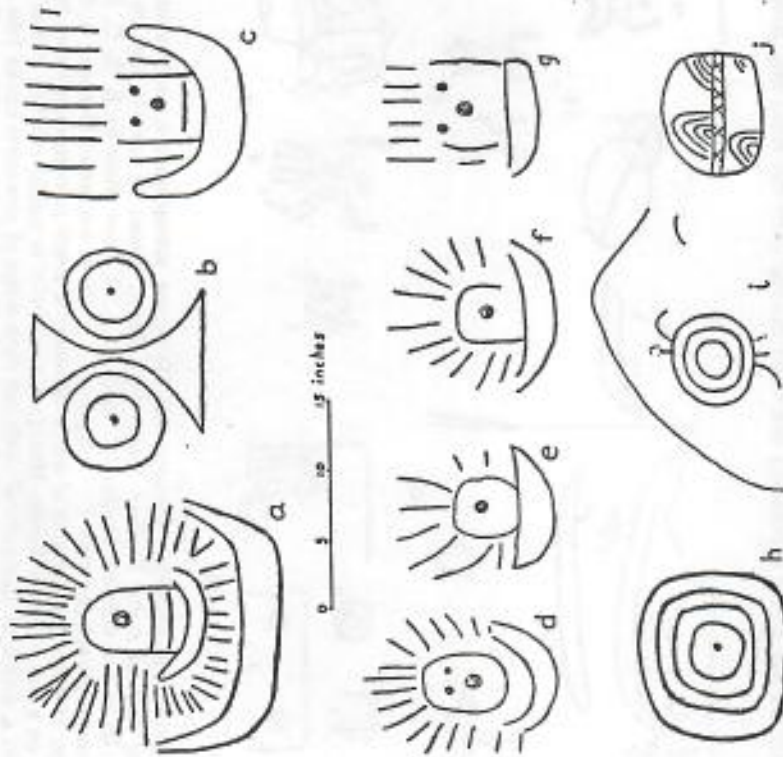


FIGURE 128.—Petroglyphs: a, c-g, at Vaitoa, Tautira (Site 48); b, on easternmost boulder 12 feet in diameter, Faaa (Site 10); h-i, on boulders behind schoolhouse at Aave; h, single petroglyph 15 inches in diameter, on northwest face of middle boulder; j, decorative incisions on coconut shell plaque sewed on apron of mourner's costume from Tahiti (British Museum), diameter 1 inch.

Among all the petroglyphs in the Leeward Islands, only one is of human form (fig. 130, b). In this the body is outlined by a triangle and the legs are formed by a double line. The petroglyphs at Tipaerui, Tahiti, are nearly all of human form. There are several simple linear figures (fig. 129, a), but the two most conspicuous petroglyphs (fig. 129, b; pl. 19, A) have limbs and the sides of the body represented by double grooves. One of these has two heads, the left one being attached centrally on the body. Appended to the body are

pared, that the resemblance of the petroglyph to the headdress and to the pyrogravure is too striking and detailed to be accidental. Elsewhere (22) I have analyzed this petroglyph and fully set forth its correspondence to this type of headdress. In brief, the radiating lines of the petroglyph apparently represent the slender tail feathers of the tropic bird; the upper, vertical part of the figure represents the frontal piece of pearl shell; the curved base represents the breast plate; the ovals bristling with spines at each end of the breast plate represent the pearl shells fringed with feathers; and the whole main outline of the figure represents the hood draped over the head and shoulders.

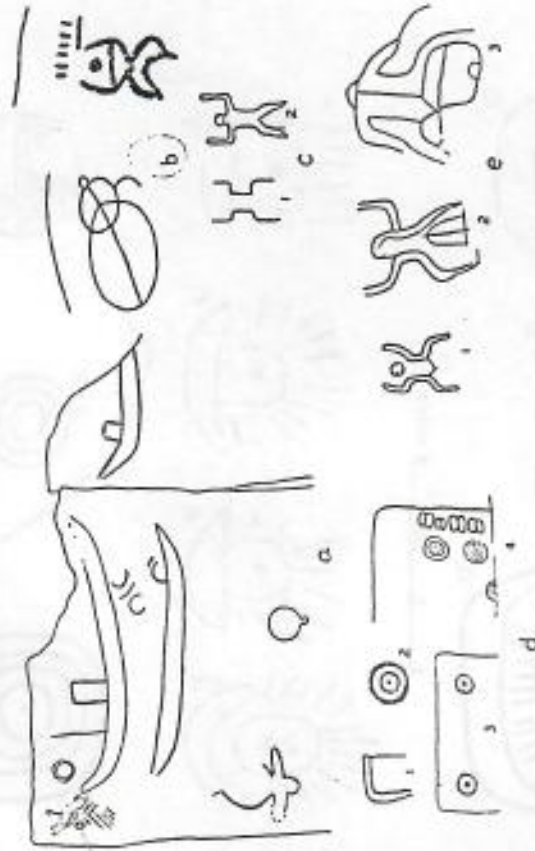


FIGURE 130.—Tahitian, Pitcairn, and Marquesan petroglyphs: *a*, on two adjoining facing slabs of marae Raahuru (Site 120), Maeva, canoes on left are each 20 inches long; *b*, on two different boulders at Vaiti, from photo by E. S. C. Handy; *c*, Pitcairn petroglyphs, after S. (52); *d*, slabs of marae of Huahine; 1, chevron design, 15 inches high, on slab of marae Manuanu; 2, single petroglyph, 5 inches in diameter, on a slab of marae Farele, Maeva; 3, two circles in partial relief on slab of marae Animi; 4, outline of four pairs of ovals and three series of concentric circles (the largest 13 inches in diameter) in partial relief on a slab of marae Animi; *e*, at Teueto, Tahauku, Iivaoa, Marquesas, from photo by Ralph Linton.

A petroglyph on Borabora (fig. 131, *a*) with nine or ten vertical parallel lines on a rectangular base, tastefully embellished with a central circle and a semicircle in each corner, suggests the frontlet of the Austral Islands headdress (one in Peabody Museum, Harvard University, another in Cambridge University Museum, England) bearing a row of upright tropic bird feathers. A petroglyph on a different part of the same rock (pl. 20, *B*), with vertical, parallel lines, obviously also represents a headdress. The vertical lines rising

from a horizontal line over a small human figure on Maupiti (fig. 130, *b*) may stand for a headdress of the same type. Petroglyphs at Vaiote, Tautira (fig. 128, *a*, *c-h*; Site 48) are, similarly, representations of masks and head-dresses.

That the use of concentric semicircles, as on the "headress" petroglyph of Borabora, is not foreign to historic Tahitian art is witnessed by the carving on one of the little incised coconut shell disks (fig. 128, *f*) tied to the apron of the mourner's costume in the British Museum.

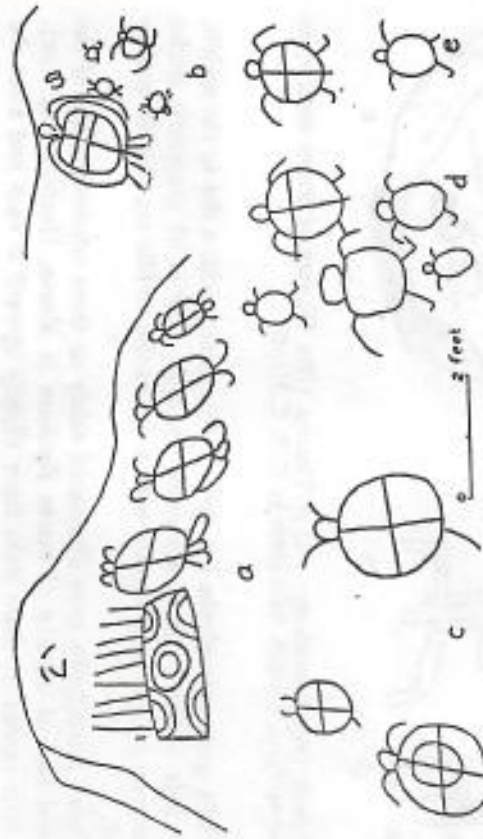


FIGURE 131.—Borabora petroglyphs: *a*, *c*, boulder, east bank of Vaiati brook, *a*, south face, *c*, west face; *b*, boulder, west bank of Vaiati, south face (Site 296); *d-e*, groups on two slabs of marae Fareoqu (fig. 120).

MEANING

None of the groups of petroglyphs in the Society Islands are organized to portray an event or to form a decorative ensemble. They are individual figures added one after the other by the same or different artists without regard to the figures already carved.

The turtle figure predominates among the petroglyphs. The turtle, writes Henry (32, p. 384), was the shadow of the gods of the ocean. It was a choice food held sacred to the gods and eaten only by chiefs and marae keepers (32, p. 381). Marae dedicated to Oro were distinguished from all others (32, p. 132) by stones "shaped like turtles' heads and set at regular distances along the sides of the construction."

At one marae in Faava District, Tahiti (Site 9), whose enclosing walls are all were faced entirely with worked stones, were found four stones exactly

at one end with a groove. One of these was in place as a first-course stone of the inner facing of the court wall (fig. 18, *a, d*); from the proximity of the others, presumably they were also placed in the wall. These may be the stones to which Henry is referring, as there is something of the suggestion of a turtle's head in the form of the end encircled by a groove. However that may be, in the Leeward Islands the *ara* of the marae are faced with slabs and there are no enclosing walls, and the turtle could, therefore, not be represented in the same way. It is quite possible that this idea of embellishing a marae with representations of the turtle as the representation of Oro was carried out in the Leeward Islands by the turtle petroglyphs on one or several of the slabs of a number of the marae. These petroglyphs, then, would be sacred symbols. It is difficult to think of them as being drawn in the spirit of decorative art, for they are only scattered here and there or placed haphazard on one slab. At the same time, some idea of embellishment would seem to be present.

Next to turtle figures, circles and concentric circles are the most common and widespread. It is obvious in the Faaa petroglyph (fig. 128, *b*) that the concentric circles and dot in the middle represent the eyes of a face. Concentric circles on marae slabs of Huahine, on the other hand, seem to represent turtles, for some of these are embellished with the head and flippers of a turtle. The natives of Hawaii told Ellis (17, vol. 4, p. 459) that in the concentric circles with a dot or mark in the center which they saw carved on lava flows the dot signified a man and the number of rings denoted the number in the party who had circumambulated the island. Concentric circles painted on an Austral Islands tapa in the Peabody Museum, Salem, Massachusetts, are edged with small triangles suggesting the rays of the sun, but the eyes of human figures carved on their paddles and spears have exactly the same outline, and a wooden figure from Raiavavae, in the British Museum, has this identical design representing the navel. The flat under surface of a ridgepole on exhibition in the Papeete Museum, Tahiti, is ornamented with a row of these Austral Islands motives. It is certain, therefore, that though not all concentric circles represented the same thing, as the human eye, the sun, or the turtle, some of them were used to represent these things.

The ceremonial "headdress" petroglyphs on Raiatea, Borabora, and Tahiti may have functioned to represent magically the continued presence, surveillance, or influence of a chief mourner. The human figure at Tipaerui, Tahiti, attempts to represent something symbolically, for it is not realistic and it is not an idle scribble. But it would be a mistake to attach symbolic significance to all Society Islands petroglyphs.

As in Hawaii (21, p. 120, figs. 17, 20), the Marquesas (39, pp. 96-99), New Zealand (28), and New Caledonia (41), in the Society Islands common petroglyph forms appear also as motives in burnt decorations or in tattooing.

or both. Among the other motives burnt into the Tahitian bamboo quiver with the headdress motive are turtles (fig. 133), represented in much the same way as in some of the petroglyphs. Ellis (17, vol. 1, pp. 262-266) says that circles, goats, dogs, fowl, fish, clubs, spears, and men engaged in battle and manual exercise were tattooed on the natives, and that, though some of the figures were probably invested with special meaning, they were adopted by the majority of the natives merely for decoration. In Wilson's painting (40, vol. 1, p. 140) of a group of distinguished natives at Matavai, Tahiti, in 1797, Tahitian tattooing is clearly illustrated. On the left hip of one native are tattooed an outer circle of dots with three concentric circles, a common petroglyph motive.

As petroglyphs in Polynesia are thus also decorative motives they may be classified as "artistic manifestations," to borrow a term from Luquet's study of New Caledonian petroglyphs (41, p. 54); what he concludes about them seems to apply in large measure to the Polynesian carvings. He says, "The figures were evidently not intended to decorate the surface on which they are drawn and which simply served the purpose which a piece of paper would with us." Therefore he sets them up as "independent art" to distinguish them from "decorative art." I would say of the petroglyphs in the Society Islands that some of them may have been carved with the idea of embellishment and some probably as symbols, but that in the main they are simply the record of rudimentary artistic impulses.

COMPARISONS

Petroglyphs have been discovered in Hawaii, Christmas Island, the Marquesas, Tonga, Society Islands, Pitcairn (53), Austral Islands, Easter Island, Chatham Island, and New Zealand, so that the incising or pecking of figures on stone is almost universal in Polynesia. Samoa is a notable exception, for not a single carving has been found there in spite of inquiry and searching by Dr. P. H. Buck and others. Likewise Mr. E. G. Burrows could learn in 1932 of none in Wallis or Futuna. They are rare in Tonga and Fiji. The practice of making petroglyphs, therefore, seems a trait belonging rather to distal (with reference to Asia) Polynesia, than to proximal Polynesia (Samoa, Niue, Tonga, Wallis, and Futuna).

Petroglyphs found to any extensive degree throughout Polynesia (as the linear human figure, concentric circles, bird and turtle figures) are exceedingly simple and appear sporadically throughout the world. Little reliance can be put on them as constituting in themselves a proof of cultural contact. Even in the more elaborate figures possibilities of correspondence through coincidence are great. For example, the unique cross and Y markings on the body of the turtle (fig. 132, *g*) are exactly paralleled on the body of a human petroglyph in Brazil (34, fig. 5). Masks, ceremonial costumes, and head-

resses are also represented by Brazilian petroglyphs (34, p. 54), and I have seen them somewhere represented in petroglyphs in the West Indies. Yet these considerations do not leave the petroglyphs without value in pointing out cultural contact; they only warn against exaggerating the significance of identical forms.

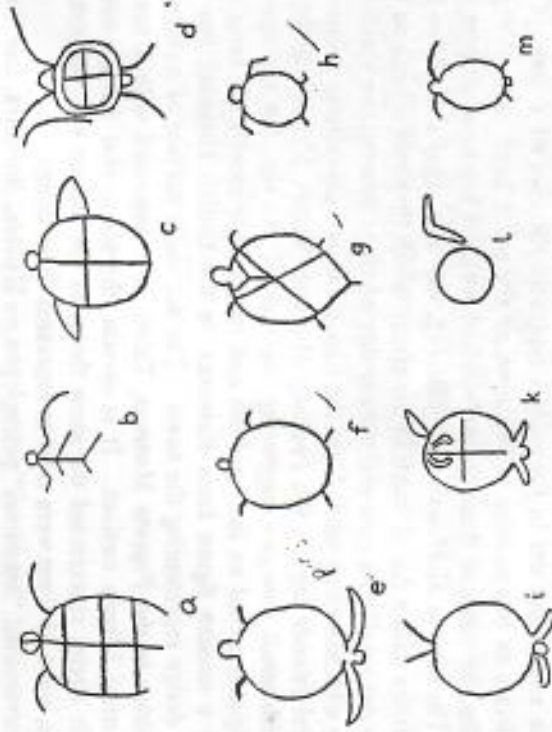


FIGURE 132.—Leeward Islands turtle petroglyphs: a-c, on facing stones of ancient chief's house platform at Tevaitoa, Raiatea, sketched by W. C. Handy, a, 15 inches long; d, on slab of marae Manunu, Maeva, Huahine, 12.5 inches wide; e-h, on one slab of marae Tainuu, Tevaitoa, Raiatea; i-k, on slab of marae Rauhuu, Maeva, Huahine; l, circle 7 inches in diameter on end slab of marae Manunu, Huahine; m, single figure on slab of Anini marae, Huahine, length 8 inches.

The representation of the human form in Polynesia by pecking two parallel lines for the limbs and the sides of the body has been discovered at only one group of petroglyphs in the Marquesas and one group in the Society Islands. The correspondence in other respects between these two groups is so detailed as to make tenable the hypothesis that the people who made both groups belonged to the same school. Whether these not un-Polynesian petroglyphs belong to the historic Marquesan and Tahitian cultures is a question. Linton (39, pp. 98, 149) says of the Marquesan group of figures: "Most of them differ sharply from any others observed in the Marquesas Islands. . . . The smoothly curved contours of the limbs are decidedly at variance with the art canons of the historic natives." Likewise, the Tahitian group of petroglyphs differs from all others seen in the Society Islands and is at variance with the little which has survived of Tahitian art.

The Society Islands turtle petroglyphs marked with a cross, or crosses, or concentric circles, are a specialized form which would be indicative of Society Islands contact if found on other islands in Polynesia. But they and the headdress petroglyphs have not been reported elsewhere and hence rest in the category of local evolutions.

The simple turtle figure appears in Hawaii (21, fig. 19, pls. 7, C, 8, A), though rarely. A similar turtle petroglyph in the New Hebrides is illustrated by MacMillan Brown (8, p. 100).

Three canoe figures on Lanai in Hawaii (21, fig. 19, pl. 7, G) are remarkable in having the same upward-tapering ends as the Huahine canoe petroglyphs, a feature of historic Society Islands war canoes and one which, the Lanai petroglyphs would indicate, was at one time present in the Hawaiian canoes. The canoe petroglyphs in New Zealand (28) picture a local type of canoe and therefore need not have had any connection, beyond a common practice of copying familiar objects, with the figures of canoes cut on the slabs of a Huahine marae. Besides, the Huahine petroglyphs were probably carved long after the Maoris left.

The New Zealand canoe figures are ornamented with spirals, and isolated spirals appear among them. Elsewhere in Polynesia there have been found no spiral petroglyphs from which to derive the New Zealand ones, but of course such a motive can be carried as a tattoo or wood carving design and be converted into a petroglyph at any time. Nevertheless, if the spiral was a common decorative motive as it was in New Zealand we should expect to find it somewhere among the numerous circle and concentric circle petroglyphs of Tahiti, the Marquesas, and Hawaii. The spiral petroglyph appears in the New Hebrides (41).

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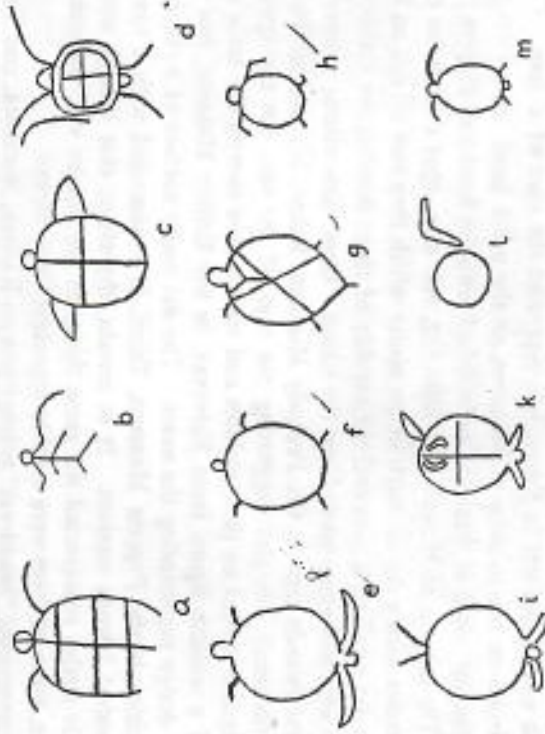


FIGURE 132.—Leeward Islands turtle petroglyphs: a-c, on facing stones of ancient chief's house platform at Tevaitoa, Raintea, sketched by W. C. Handy, a, 15 inches long; d, on slab of marae Mamunu, Maeva, Huahine, 12.5 inches wide; e-h, on one slab of marae Tainuu, Tevaitoa, Raiatea; i-k, on slab of marae Rauburu, Maeva, Huahine; l, circle 7 inches in diameter on end slab of marae Manuua, Huahine; m, single figure on slab of Anini marae, Huahine, length 8 inches.

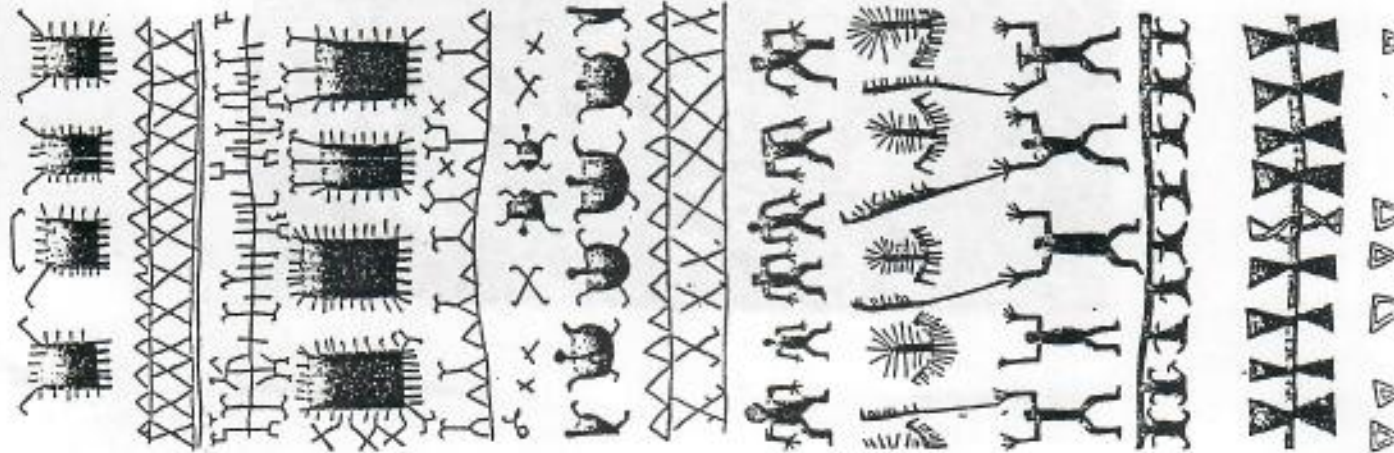
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The simple turtle figure appears in Hawaii (2L fig. 19, pls. 7, C, 8, A), though rarely. A similar turtle petroglyph in the New Hebrides is illustrated by MacMillan Brown (8, p. 100).

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BIBLIOGRAPHY

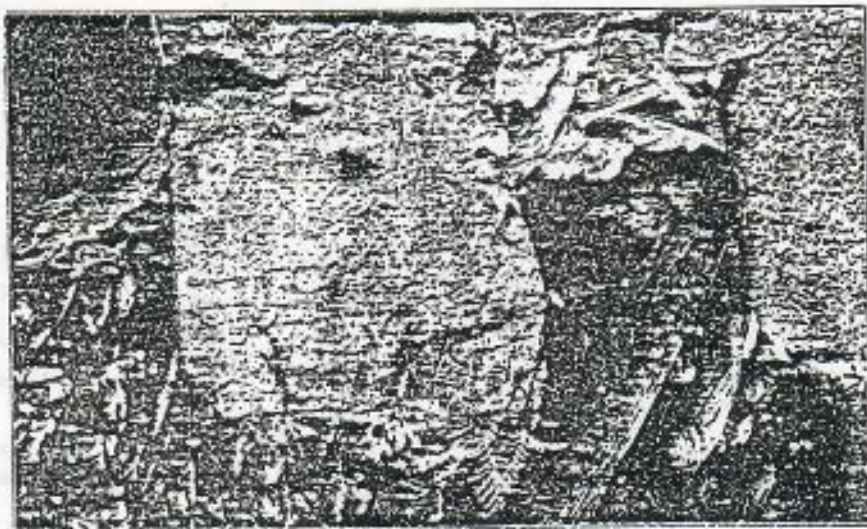
1. ANDREWS, LORAIN, A Hawaiian dictionary, Honolulu, 1853.
2. BANKS, SIR JOSEPH, Journal (Sir Joseph D. Hooker, editor), London, 1896.
3. BAESSLER, ARTHUR, Neue Südsee-Bilder, Berlin, 1900.
4. BENNETT, W. C., Archaeology of Kauai: B. P. Bishop Mus., Bull. 80, 1931.
5. BENNETT, W. C., Archaeological hikes in the Andes: Nat. Hist. Mag., March-April, 1933.
6. BEST, ELSBORN, Some place names of islands of the Society group: Polynesian Soc., Jour., vol. 26, pp. 111-115, 1917.
7. BOVIS, (LUCIENANT DE VASSEAU), Etat de la Société Tahitienne a l'arrivée des Européens, Papeete, Tahiti, 1909. (Reprinted from Revue Coloniale, 1855.)
8. BROWN, J. M., The riddle of the Pacific, London, 1925.
9. BUCK, P. H., Ethnology of Tongareva: B. P. Bishop Mus., Bull. 92, 1932.
10. BUCK, P. H., Samoan material culture: B. P. Bishop Mus., Bull. 75, 1930.
11. CAILLOU, A. C. E., Histoire de la Polynésie Orientale, Paris, 1910.
12. COOK, JAMES, Captain Cook's journal during his first voyage round the world, 1768-71 (W. J. L. Wharton, editor), London, 1893.
13. COOK, JAMES, A voyage to the Pacific Ocean (third voyage), 1776-1780, London, 1785.
14. CONNRY, B. G., The quest and occupation of Tahiti by emissaries of Spain during the years 1772-1776, 3 vols., London, 1915.
15. DAVIES, JOHN, and DABLING, D., A Tahitian and English dictionary, Tahiti, 1851.
16. DUPREY, L. I., Voyage autour du monde sur "La Coquille," 1822, 1823, 1824, 1825. Historical and hydrographic atlas, Paris, 1827.
17. ELLIS, WILLIAM, Polynesian researches, vols. 1-4, London, 1831-1842.
18. EMORY, K. P., Archaeology of Haleskaka: B. P. Bishop Mus., Occ. Papers, vol. 7, no. 11, 1921.
19. EMORY, K. P., Archaeology of Nihoa and Necker Islands: B. P. Bishop Mus., Bull. 53, 1928.
20. EMORY, K. P., Archaeology of the Polynesian Equatorial Islands, manuscript in B. P. Bishop Museum. (Includes chapter on Phoenix Islands by Gordon Macgregor).
21. EMORY, K. P., Island of Lannai: B. P. Bishop Mus., Bull. 12, 1924.
22. EMORY, M., and MESS, K. P., L'Art Tahitien: Soc. Etudes Océaniques, Bull. 19, pp. 235-239, 1927.
23. EMORY, K. P., Recent petroglyph discoveries on Tahiti: Soc. des Etudes Océaniques, Bull. 39, pp. 138-143, Papeete, 1931.
24. EMORY, K. P., Stone structures of the Tuamotu Archipelago, manuscript in B. P. Bishop Museum.
25. EMORY, K. P., Traditional history of Society Islands maraes, manuscript in B. P. Bishop Museum.
26. FORNANDER, ABRAHAM, The Polynesian race, 4 vols., London, 1880.
27. GIFFORD, E. W., Tongan society: B. P. Bishop Mus., Bull. 61, 1929.
28. HAMILTON, H., The Kaingaroa carvings: Polynesian Soc., Jour., vol. 34, pp. 356-362, 1925.
29. HANBY, E. S. C., History and culture in the Society Islands: B. P. Bishop Mus., Bull. 79, 1931.
30. HANBY, E. S. C., Houses, boats, and fishing in the Society Islands: B. P. Bishop Mus. Bull. 80, 1931.

BOHAROVA PETROGLYPHS: A, TURTLE PETROGLYPHS (FIG. 13A, D) ON COURT
FACE OF THE AHU OF MARAE VAAROPU (SITE 27D); B, OFAI HONU (TURTLE STONE).

B



A



HERNICK P. HANSEN MUSEUM

PLATE 20, FIG. 13A, D

Stone Remains in the Society Islands

By
KENNETH P. EMORY

INTRODUCTION

SCOPE

The aim of this work is to make possible an understanding of the various types of stone remains found in the Society Islands and to record precise information concerning their form and construction. The numerous ruins which lie on the points and in the valleys of each island furnish ample material for determining their original appearance.

The results of a preliminary reconnaissance survey of stone structures made by Dr. E. S. C. Handy (29)¹ in the Society Islands in 1923 were turned over to me when, from January 1, 1925, through March, 1926, I undertook a more intensive archaeological investigation. Later, during 1929, 1930, and 1931, Tahiti served as the base of operations of the Bernice P. Bishop Museum Anthropological Expedition to the Tuamotu Archipelago, and as a member of that expedition I was able to take advantage of several opportunities to add to my notes on the Tahitian archaeological remains.

The record of ruins (pp. 56 to 171) reveals the ground covered. The island of Maiao and such large tracts of land as the eastern extremity of Tahiti and the southern and western shores of Raiatea remain quite unexplored. The sites of many historic marae (shrines and temples) are still to be discovered. Undoubtedly there exist, obscured by undergrowth on the coast or lost in the interior, petroglyphs and ceremonial structures in a better state of preservation than those observed, and capable of yielding new facts of importance in the study of ancient Society Islands culture.

Certain of the marae types are obviously derived one from the other, and their distribution in the archipelago shows the order of their appearance. But distribution by itself tells little concerning the length of time that has elapsed since the advent of a type. The time element is important for the solution of problems of external contacts and ultimate origin. Therefore, in a region where the traditional date of many structures can be learned in terms of the number of generations from the persons responsible for their

¹ Numbers in parentheses refer to the bibliography, p. 181.

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Paea District	67
Papara District	72
Vairao District	75
Teshupoo District	76
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Plates 1-20	

Site 234. Marae Tamaruteaoa, on land Aihautai, Anau District (fig. 124; pl. 16, B). The best-preserved of Borabora marae. It lies close enough to the lagoon waters to be reached by high tide. A copra plantation now encroaches upon the court.

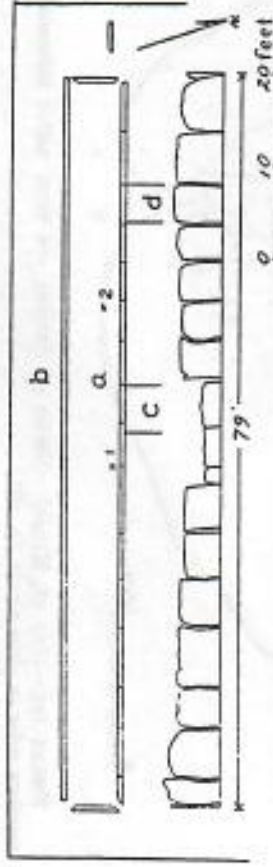


FIGURE 124.—Marae Tamaruteaoa on land Aihautai, Anau (Site 234): *a*, *ohu* faced entirely with limestone slabs (pl. 16, B), all of which are present, outlines of slabs on north face are given drawn to scale, *ohu* filled almost to top with small coral and basalt stones; *b*, front part of low platform 1.5 feet high, paved on this side with basalt flagstones 1 to 1.5 feet in diameter, front faced with bottom course of large basalt stones and second course of smaller stones; *c*, *d*, platforms or flat walls 1 foot high extending 10 feet or more; *e*, places where fragments of human bones were seen.

Site 235. Fortification named Pa-tahi, at Teparé, on the ridge dividing Anau District from Tipoto District and south of the path, Teatae, leading from one to the other (fig. 122).

A thick, high, steep, loosely built wall has been erected across the ridge blocking the approach to that part of it which widens toward the south. A narrow platform runs along the inner side of the front wall, evidently a standing platform and probably for riflemen. Tyerman (56, vol. 2, p. 21) visited two forts on Borabora:

"Upon the great mountain of Paia, . . . rude fortresses built on the least accessible slopes of the hills, and enclosing considerable spaces of the surface, intersected with strong walls, which served not merely as fences, but supplied ammunition wherewith to annoy an ascending enemy. These belonged to the two kings of the island; that on the south to Mai, and that on the north to Tefasaora. They were separated only by a foot-path, and extended along the rocky ridge of the mountain. Each pari is about half a mile in length, and furnishes a curious specimen of rough but effectual fortification, suited to the circumstances of the ground, and the modes of warfare formerly existing among the people. Within the enclosures are breadfruit, coconut, plantain, vi-apple, and other trees, to supply provisions, with water springs, on which a besieged garrison might subsist for months; so that it would be as difficult for their assailants to starve them into surrender as to storm their lines. In one place was the wreck of an old canoe, built in the last war, and laid there to appease the anger of some god."

Site 236. Petroglyph boulders at Vaiati.

Among numerous boulders on this land, about a quarter of a mile inland, there are two which are carved. The first is on the east bank of Vaiati brook and 30 feet from it. Two faces are carved with the petroglyphs shown in figure 131, *a*, *c*, and plate 20, B. The second petroglyph boulder is 150 yards northwest of the first and on the opposite side of the brook, 15 feet from it. The carved south face is shown in figure 131, *b*.

The first boulder, called *ofoi* *lonu* (turtle stone), is the mythical parent of the island and of the island's chiefs. This stone is supposed to have slept with the cliff Hoho-ral, which is the cliff of Mount Paia, and from their union Vavau was born (25).

MAUPITI

PLACE NAMES

The map of Maupiti (fig. 125) shows place names and location of some of the marae. The place names are from native informants and the French map of 1823 (16, pl. 7):

- | | | | |
|--|---|---|--------------------------|
| 1. Hutaparaoa, or Hutu-paraoa Bluff | 17. Urufaatiu, highest peak on the island. The old name is Teurabaha | 33. Teannotemouuri, two great rocks at the water's edge representing brothers, that on the west the older | 34. Maotea and Maoatera- |
| 2. Tapoa Peak | 18. Maua Po | 35. Aano, a large rock on the beach | |
| 3. Tapoa Village | 19. Puetua Hill | 36. Tehotupuawaiwai, ridge dividing Faaoa from Taototi | |
| 4. Hutuariritea Peak | 20. Tapele | 37. Vaihabau | |
| 5. Farauuru | 21. Faataahi Hill | 38. Vanaroo | |
| 6. Ureureoaha Peak | 22. Havai | 39. Teheva | |
| 7. Teremu Peak | 23. Nuupere marae | 40. Farepaia | |
| 8. Maua Farefare | 24. Tiriānoo Peak | 41. Peao | |
| 9. Paetaha. The region in the vicinity is denominated Pauma on the French map, 1823. | 25. Vainahu (pronounced Wai-pahu) | 42. Motu Aie | |
| 10. Taiwaa (pronounced Kaawaa), or Farū Hill | 26. Haamarumaru | 43. Motu Ahi | |
| 11. Harani | 27. Piaitu | 44. Tarāhu-Apouhi | |
| 12. Pohiva | 28. Vaimariri Hill | 45. Faretea | |
| 13. Anutea (pronounced Anūkeea) | 29. Puuroo | 46. Vaiotaha | |
| 14. Taiaacaha | 30. Taharai Hill | | |
| 15. Teponouhu | 31. Pahihirohoro, a rock, on the French map called Tereiavarua | | |
| 16. Hotuavaeroa or Hutu-tavaeroa | 32. Teana, a rock, a neighboring rock was pointed out to me as Tuturaporebo | | |

RUINS

Duperrey shows 16 marae on his excellent map (16, pl. 7) made in 1823, and assigns to one of them on the north side of the island the name Nuupere (Nuupere). The name of another Maupiti marae, to which an ancestor of King Mai of Borabora belonged, was Teahutapu (32, p. 260). Tyerman (56, vol. 2, p. 13) must have been misinformed when he was told that there were no less than 220 marae on Maupiti. An exhaustive inquiry has netted the names of only 35 marae. Handy and I saw the remains of 10 or 11, all in a very poor state of preservation. Most of them consisted of a rectangular pavement extending out from the shore. The platforms were mainly or entirely basalt stones. The *aihu* were faced with limestone slabs about 3 feet high and standing on the lagoon end of the platform. The platforms were neatly paved with basalt flagstones.

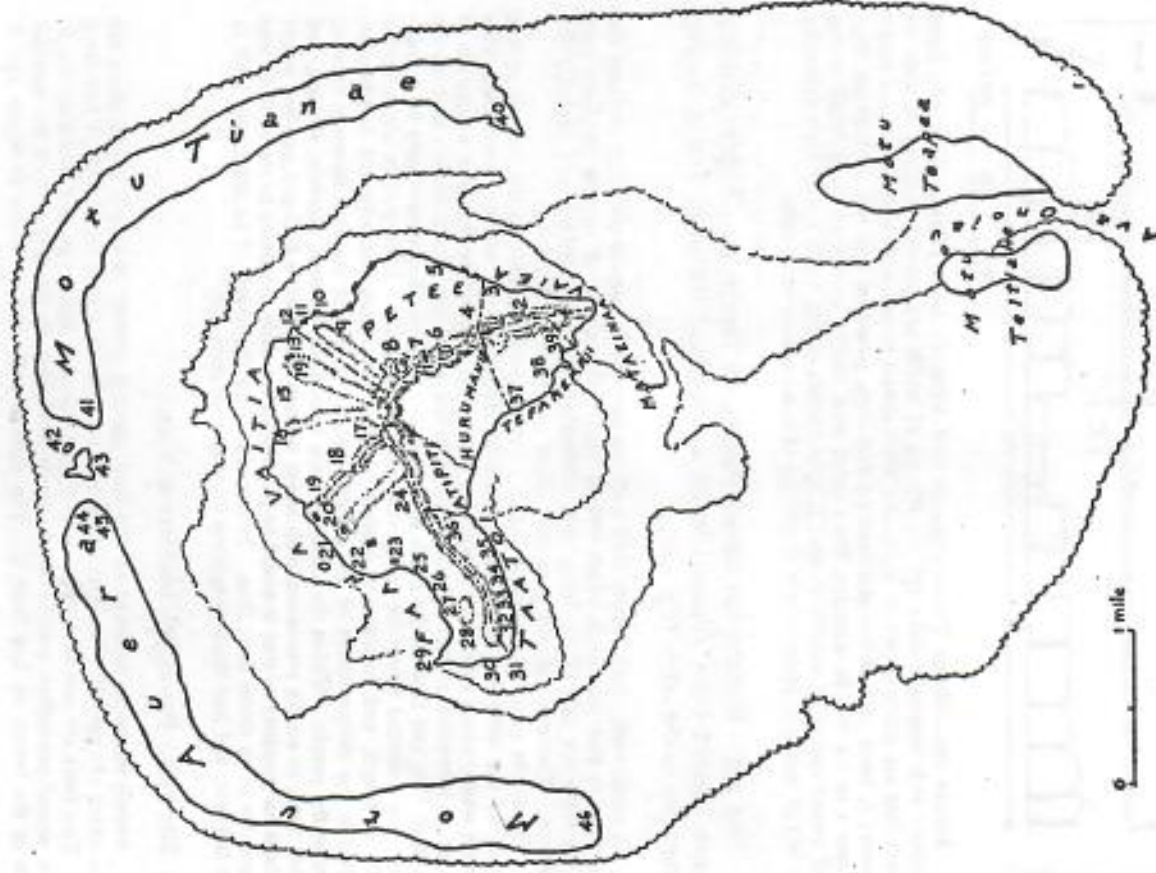


FIGURE 125.—Map of Maupiti. Names of districts are from native informants; numbers refer to place names (p. 167).

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Site 237. Marae Vaiahu, Tefaruarui District (fig. 126).

A platform of basalt dike stones built out to low tide mark on the lagoon. Its height ranges from 1 to 4 feet. Across the lagoon end of the platform is a line of three or four limestone slabs on edge, undoubtedly marking the inland face of an *ohu*. In a vault (fig. 126, *b*), it is said, until recently the fishing gods were put at times of fishing. For the setting of the marae in relation to the chief's house, the original marae Teaparua, the marae Peetanu, the canoe jetty, the two maraes next to it, and to the assembly ground, see Handy's plan (29, fig. 12) of Tefaruarui. Record by Handy.

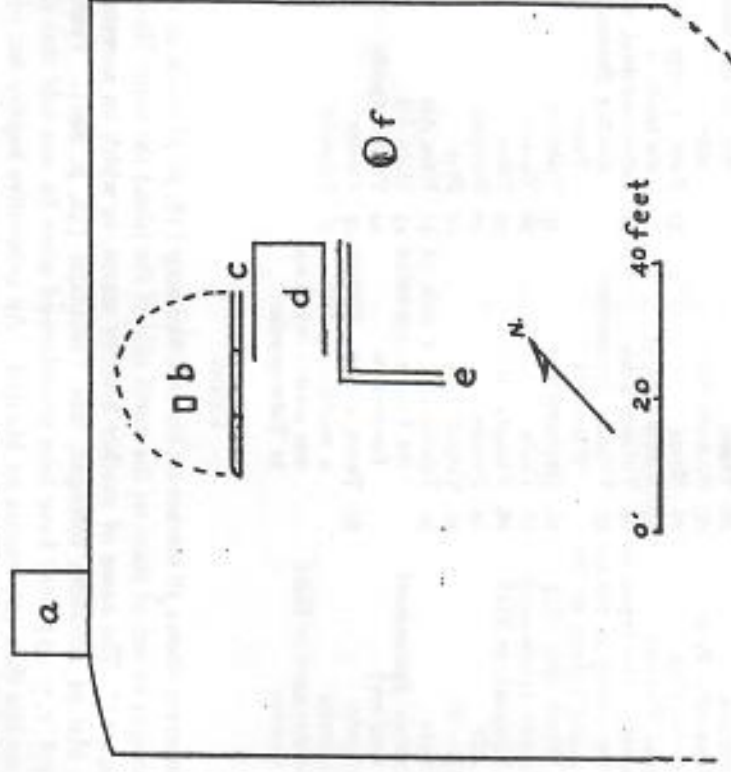


FIGURE 126.—Marae Vaiahu (Site 237), platform built of natural basalt blocks: *a*, extension recently built; *b*, vault lined with limestone slabs about 2 feet deep, 3 feet long, 2 feet wide, now empty, spot elevated above general level of platform indicating that vault was embedded in fill of *ohu*; *c*, three or four limestone slabs on edge marking inner face of *ohu*; *d*, slightly depressed area finely paved with pebbles; *e*, small wall; *f*, pit 4 feet deep, 4 feet in diameter, lined with rough stone; human leg, collar, and thigh bones as well as pig jaws and teeth lay in bottom of pit.

Site 238. A *pa* (fortification) on the east slope of Terama Peak, at the base of a bluff overlooking Vaiea Village (fig. 127), and rock named Tumupuaa.

The *pa* consists of a loosely built wall enclosing an area of steeply sloping ground, 12 to 54 feet wide, 135 feet long. At one of the outer corners of the wall is a platform built up flush with the top of the enclosure.

Vaiahu). To this list I can add from an old manuscript of lands belonging to the Mai family of Borabora, these two marae: Marae Te-tai-farii on the land Atipau, Taato District; Marae Tau, Taato or Atipiti District.

In 1932 Monsieur Ropiteau again visited Maupiti and secured a list of 23 additional marae, which list, together with some very valuable notes, he has published in the bulletin of the Société des Études Océaniques (47, pp. 120-129). The additional marae are:

- | | |
|------------------------------------|-------------------------------------|
| Ahiti-rai, at Ahiti-rai | Pihactohora, or Farerua, at Patio |
| Ahunece, at Hutase | Poua, at Aiti-faarua |
| Aiti-pae, at Aiti-pae, inland | Rai-mae, at Aiti-faarua |
| Faahai, at Faahai | Rai-vanaa, at Faretupa |
| Fare-miro, at Fare-miro | Te-ahu-tapu, at Apapaterai (inland) |
| Farerua, or Pihactohora, at Patito | Te-faataea, at Atipiti |
| Harumaruma, at Taoto | Tereva, at Tereva, inland |
| Manutahi, at Manutahi | Tetooarai, at Hurumana |
| Maraamea, at Maupai | Tiahibia, at Atipiti |
| Neupure, at Farefau | Vaehaa, at Te-pae-ariol |
| Otu, at Taurere | A marae near marae Otu |
| Patu-pota, at Mahui | A marae at Vaimoo |

→ PETROGLYPHS

DESCRIPTION

A number of petroglyphs have been discovered on Tahiti, Huahine, Raia-tea, Borabora, and Maupiti. In Tahiti the petroglyphs are on large boulders, and in the Leeward Islands, on the slabs of marae as well. That they are not common is certain. Nevertheless, the wide distribution of those which have been found, their uniformity and conventionality, prove that the making of petroglyphs was a well-established practice.

The carving of petroglyphs on marae slabs and such motives as are found on them—the turtle, which predominates, concentric circles, circle and dot, and canoe—may be placed within the period of historical inhabitants, but there is no way of dating the figures on boulders not associated with marae. The tradition collected in 1926, which claims that the human figures on a boulder at Tipaerui, Tahiti (Site 6), were carved in memory of the wife and twin children of one Taturui who had taken refuge in Tipaerui has too much the ring of a local legend rationalized to fit the carving to be taken literally. Yet no very great age can be ascribed to this well-delineated carving on a flat rock in a steep brook bed where erosion is going on at a rapid rate.

Most petroglyphs are wrought by pecking broad, rather deep grooves. A few of the grooves are so broad and shallow as to lift the spaces between into low relief and shift the attention from the outline to the body of the figure. I doubt that the artist aimed at producing this effect, as it is only perfect in two figures (fig. 130, d, nos. 3, 4) on rough limestone slabs where narrow

On the opposite side of Terama Peak and resting on the slope above the bluffs of Tefarearifi District is the great rock named Tumupua. In its shelter and round about it are the remains of native ovens, probably used by the refugees of the fort. On the west side of the rock is a house terrace, 30 feet long, 15 feet wide, 3 feet high along the front. It is faced with stones loosely laid up and filled with earth and small stones. Below this is another similar house terrace, 24 feet long, 15 feet wide.

Site 239. Three petroglyph boulders at Haranai, in a stream bed of a ravine north of Vaiea Village. The principal carving on two of these stones is shown in figure 130, b; the carvings on the third boulder, in figure 129, c. Record by Handy.

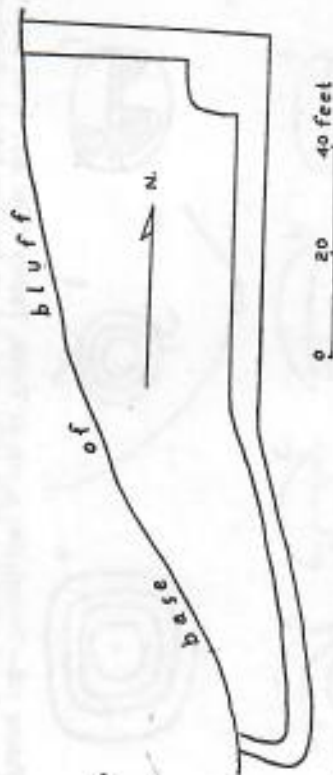


FIGURE 127.—Plan of fortification at base of east bluff of Terama Peak (Site 238), northeast corner is 6 feet high on outside.

Site 240. Tomb on the northeast coast, just seaward of the road, 50 yards from the shore.

The ruin consists of six or seven limestone slabs about 3 feet high set on edge and forming an enclosure 6 feet square partitioned across the middle by a single slab. The natives pointed it out as a burial place and strictly avoided approaching near it.

I have a list of the names of some marae of Maupiti, communicated to me in 1930 by my esteemed friend, Monsieur André Ropiteau, who made inquiries while visiting the island in that year:

1. Marae Vaiahu, dedicated to Hiro.
2. Marae Tehuta, belonging to Taurua-haamoelua.
3. Marae Faretai, belonging to Vahu-tai-mui.
4. Marae Faacete, belonging to Teiatun-i-te-pu-maroura.
5. Marae Hamau, belonging to Mauate-anoouta.
6. Marae Toahihia, belonging to Ope-i-te-ara-uroa.
7. Marae Rai-faairi, belonging to Mautahi-i-te-rauava.
8. Marae ? belonging to Pua-hi-i-te-papa-i-urivaa.
9. Marae Tetooarai, belonging to Terii-ri-i-te-vaa-taunoua.

Henry (32, p. 129) says that the chief deities presiding over Vaiahu were Tu and T'aroo; de Bovis (7, p. 44) gives the god as Tuu-i-vaiahu (Tu-i-

lines would have been lost. The figures on the cornerstone of the chief's house platform at Tevaitoa (pl. 19, B) are sharply incised.

Human and turtle figures, concentric circles, representations of masks and headdresses, are the motives employed in Tahiti. The Leeward Islands add canoes and simple circles to these figures.

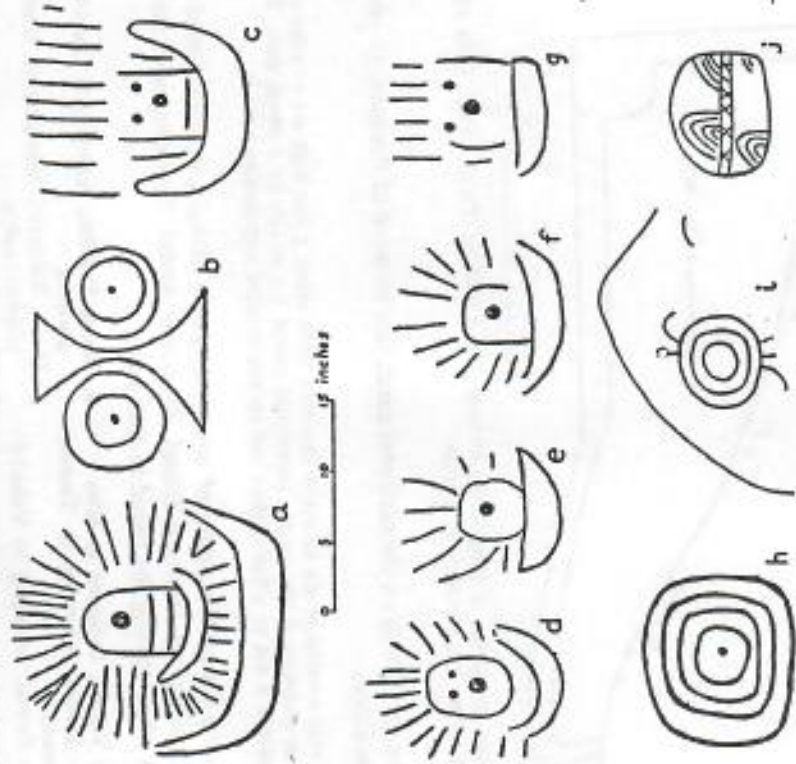


FIGURE 128.—Petroglyphs: a, c-g, at Vaitoe, Tautira (Site 48); b, on easternmost boulder 12 feet in diameter, Fasa (Site 10); h-i, on boulders behind schoolhouse at Aree; h, single petroglyph 15 inches in diameter, on northwest face of middle boulder; j, decorative incisions on coconut shell plaque sewed on apron of mourner's costume from Tahiti (British Museum), diameter 1 inch.

Among all the petroglyphs in the Leeward Islands, only one is of human form (fig. 130, b). In this the body is outlined by a triangle and the legs are formed by a double line. The petroglyphs at Tipaerui, Tahiti, are nearly all of human form. There are several simple linear figures (fig. 129, a), but the two most conspicuous petroglyphs (fig. 129, b; pl. 19, A) have limbs and the sides of the body represented by double grooves. One of these has two heads, the left one located centrally on the body. Appended to the body are

two symbols which might be interpreted as representing the male and female sexual organs, or the male and the placenta.

Most of the turtle figures are simple outlines, but some have on their backs conventional markings. In these the cross predominates, and the circle, or concentric circles, or a combination of cross and circle, are used. A median vertical line crossed by two or more horizontal lines may represent the division of the shell into plaques, but the designs so individualize the turtles as to convey the impression that they indicate specific kinds of turtles or are symbols appropriated by individuals. However, there may be behind this decoration only a desire to fill the empty space.



FIGURE 129.—Petroglyphs: a-b, at Tipaerui (Site 6), each 16 inches high; c, on boulder at Vaiea, Maupiti, from photo by E. S. C. Handy.

Plain circle petroglyphs are rare. Plain circles with a dot in the middle, or a circle within a circle, are more common. Series of concentric circles running up to four and usually with a dot in the middle are also frequently found.

Canoe petroglyphs were discovered solely on three adjoining slabs of the seaward face of the *ahae* of marae Rauhuru at Maeva, Huahine (fig. 130). The four canoes on these slabs taper slightly upward at each end after the manner of the Society Islands war canoe. Resting toward one end of two of the canoes is a rectangle which suggests remotely the little house standing on the forward part of double traveling canoes or the fighting platform of war canoes. A young native spectator exclaimed, "Look at the smoke stacks!" But the native aversion to handling these marae slabs, as well as the weathered appearance of the grooves, argues against the modernity of the carving.

The supposition that certain figures on Tahiti, Raiatea, Borabora, and Maupiti (fig. 128, a-g; 130, b; 131, a) represent headdresses rests on their resemblance to pyroglyphs on a bamboo quiver from the Society Islands in the British Museum (fig. 133) which unmistakably represent a type of headdress common in the Society Islands as part of the chief mourner's costume. It will be seen, if the headdress as figured by Webber (13, vol. 3, p. 230), the pyroglyph (fig. 133), and the Raiatean petroglyph (pl. 19, B) are com-

pared, that the resemblance of the petroglyph to the headdress and to the pyrogravure is too striking and detailed to be accidental. Elsewhere (22) I have analyzed this petroglyph and fully set forth its correspondence to this type of headdress. In brief, the radiating lines of the petroglyph apparently represent the slender tail feathers of the tropic bird; the upper, vertical part of the figure represents the frontal piece of pearl shell; the curved base represents the breast plate; the ovals bristling with spines at each end of the breast plate represent the pearl shells fringed with feathers; and the whole main outline of the figure represents the hood draped over the head and shoulders.

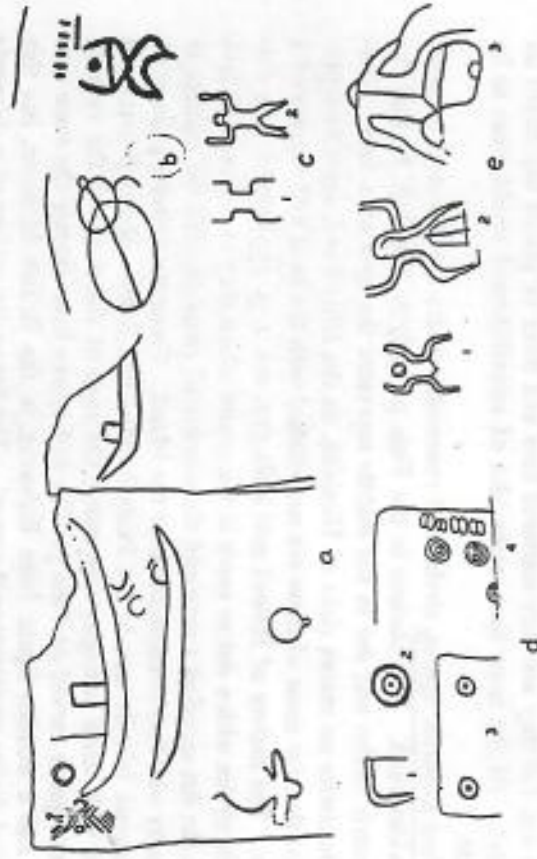


FIGURE 130.—Tahitian, Pitcairn, and Marquesan petroglyphs: *a*, on two adjoining facing slabs of marae Rauburu (Site 120), Maeva, canoes on left are each 20 inches long; *b*, on two different boulders at Vaiea, Maupiti, from photo by E. S. C. Handy; *c*, Pitcairn petroglyph, after Seurat (52); *d*, on slabs of maraes of Huahine; *e*, chevron design, 15 inches high, on slab of marae Manunu; *f*, single petroglyph, 5 inches in diameter, on a slab of marae Farese, Maeva; *g*, two circles in partial relief on slab of marae Anini; *h*, outline of four pairs of ovals and three series of concentric circles (the largest 13 inches in diameter) in partial relief on a slab of marae Aniwi; *i*, at Teueto, Tahauku, Hivaooa, Marquesas, from photo by Ralph Linton.

A petroglyph on Borabora (fig. 131, *a*) with nine or ten vertical parallel lines on a rectangular base, tastefully embellished with a central circle and a semicircle in each corner, suggests the frontlet of the Austral Islands headdress (one in Peabody Museum, Harvard University, another in Cambridge University Museum, England) bearing a row of upright tropic bird feathers. A petroglyph on a different part of the same rock (pl. 20, *B*), with vertical, parallel lines, obviously also represents a headdress. The vertical lines rising

from a horizontal line over a small human figure on Maupiti (fig. 130, *b*) may stand for a headdress of the same type. Petroglyphs at Vaioete, Tauiira (fig. 128, *a, c-h*; Site 48) are, similarly, representations of masks and head-dresses.

That the use of concentric semicircles, as on the "headdress" petroglyph of Borabora, is not foreign to historic Tahitian art is witnessed by the carving on one of the little incised coconut shell disks (fig. 128, *f*) tied to the apron of the mourner's costume in the British Museum.

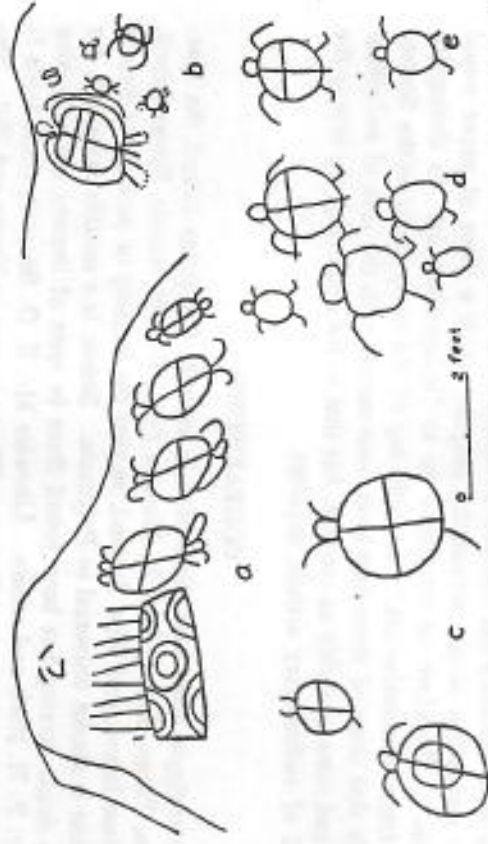


FIGURE 131.—Borabora petroglyphs: *a, c*, boulder, east bank of Vaiaiti brook, south face, *c*, west face; *b*, boulder, west bank of Vaiaiti, south face (Site 236); *d-e*, groups on two slabs of marae Farecopu (fig. 120).

MEANING

None of the groups of petroglyphs in the Society Islands are organized to portray an event or to form a decorative ensemble. They are individual figures added one after the other by the same or different artists without regard to the figures already carved.

The turtle figure predominates among the petroglyphs. The turtle, writes Henry (32, p. 384), was the shadow of the gods of the ocean. It was a choice food held sacred to the gods and eaten only by chiefs and marae keepers (32, p. 381). Maraes dedicated to Oro were distinguished from all others (32, p. 132) by stones "shaped like turtles' heads and set at regular distances along the sides of the construction."

At one marae in Faava District, Tahiti (Site 9), whose enclosing walls and *aha* were faced entirely with worked stones, were found four stones encircled

at one end with a groove. One of these was in place as a first-course stone of the inner facing of the court wall (fig. 18, *a*, *d*); from the proximity of the others, presumably they were also placed in the wall. These may be the stones to which Henry is referring, as there is something of the suggestion of a turtle's head in the form of the end encircled by a groove. However that may be, in the Leeward Islands the *marae* of the marae are faced with slabs and there are no enclosing walls, and the turtle could, therefore, not be represented in the same way. It is quite possible that this idea of embellishing a marae with representations of the turtle as the representation of Oro was carried out in the Leeward Islands by the turtle petroglyphs on one or several of the slabs of a number of the marae. These petroglyphs, then, would be sacred symbols. It is difficult to think of them as being drawn in the spirit of decorative art, for they are only scattered here and there or placed haphazard on one slab. At the same time, some idea of embellishment would seem to be present.

Next to turtle figures, circles and concentric circles are the most common and widespread. It is obvious in the Faaa petroglyph (fig. 128, *b*) that the concentric circles and dot in the middle represent the eyes of a face. Concentric circles on marae slabs of Huahine, on the other hand, seem to represent turtles, for some of these are embellished with the head and flippers of a turtle. The natives of Hawaii told Ellis (17, vol. 4, p. 459) that in the concentric circles with a dot or mark in the center which they saw carved on lava flows the dot signified a man and the number of rings denoted the number in the party who had circumambulated the island. Concentric circles painted on an Austral Islands tapa in the Peabody Museum, Salem, Massachusetts, are edged with small triangles suggesting the rays of the sun, but the eyes of human figures carved on their paddles and spears have exactly the same outline, and a wooden figure from Raivavae, in the British Museum, has this identical design representing the navel. The flat under surface of a ridgepole on exhibition in the Papeete Museum, Tahiti, is ornamented with a row of these Austral Islands motives. It is certain, therefore, that though not all concentric circles represented the same thing, as the human eye, the sun, or the turtle, some of them were used to represent these things.

The ceremonial "headdress" petroglyphs on Raiatea, Borabora, and Tahiti may have functioned to represent magically the continued presence, surveillance, or influence of a chief mourner. The human figure at Tapaerui, Tahiti, attempts to represent something symbolically, for it is not realistic and it is not an idle scrawl. But it would be a mistake to attach symbolic significance to all Society Islands petroglyphs.

As in Hawaii (21, p. 120, figs. 17, 20), the Marquesas (39, pp. 96-99), New Zealand (28), and New Caledonia (41), in the Society Islands common petroglyph forms appear also as motives in burnt decorations or in tattooing.

or both. Among the other motives burnt into the Tahitian bamboo quiver with the headdress motive are turtles (fig. 133), represented in much the same way as in some of the petroglyphs. Ellis (17, vol. 1, pp. 262-266) says that circles, goats, dogs, fowl, fish, clubs, spears, and men engaged in battle and manual exercise were tattooed on the natives, and that, though some of the figures were probably invested with special meaning, they were adopted by the majority of the natives merely for decoration. In Wilson's painting (40, vol. 1, p. 140) of a group of distinguished natives at Matavai, Tahiti, in 1797, Tahitian tattooing is clearly illustrated. On the left hip of one native are tattooed an outer circle of dots with three concentric circles, a common petroglyph motive.

As petroglyphs in Polynesia are thus also decorative motives they may be classified as "artistic manifestations," to borrow a term from Luquet's study of New Caledonian petroglyphs (41, p. 54); what he concludes about them seems to apply in large measure to the Polynesian carvings. He says, "The figures were evidently not intended to decorate the surface on which they are drawn and which simply served the purpose which a piece of paper would with us." Therefore he sets them up as "independent art" to distinguish them from "decorative art." I would say of the petroglyphs in the Society Islands that some of them may have been carved with the idea of embellishment and some probably as symbols, but that in the main they are simply the record of rudimentary artistic impulses.

COMPARISONS

Petroglyphs have been discovered in Hawaii, Christmas Island, the Marquesas, Tonga, Society Islands, Pitcairn (52), Austral Islands, Easter Island, Chatham Island, and New Zealand, so that the incising or pecking of figures on stone is almost universal in Polynesia. Samoa is a notable exception, for not a single carving has been found there in spite of inquiry and searching by Dr. P. H. Buck and others. Likewise Mr. E. G. Burrows could learn in 1932 of none in Wallis or Futuna. They are rare in Tonga and Fiji. The practice of making petroglyphs, therefore, seems a trait belonging rather to distal (with reference to Asia) Polynesia, than to proximal Polynesia (Samoa, Niue, Tonga, Wallis, and Futuna).

Petroglyphs found to any extensive degree throughout Polynesia (as the linear human figure, concentric circles, bird and turtle figures) are exceedingly simple and appear sporadically throughout the world. Little reliance can be put on them as constituting in themselves a proof of cultural contact. Even in the more elaborate figures possibilities of correspondence through coincidence are great. For example, the unique cross and Y markings on the body of the turtle (fig. 132, *g*) are exactly paralleled on the body of a human petroglyph in Brazil (34, fig. 5). Masks, ceremonial costumes, and head-

resses are also represented by Brazilian petroglyphs (34, p. 54), and I have seen them somewhere represented in petroglyphs in the West Indies. Yet these considerations do not leave the petroglyphs without value in pointing out cultural contact; they only warn against exaggerating the significance of identical forms.

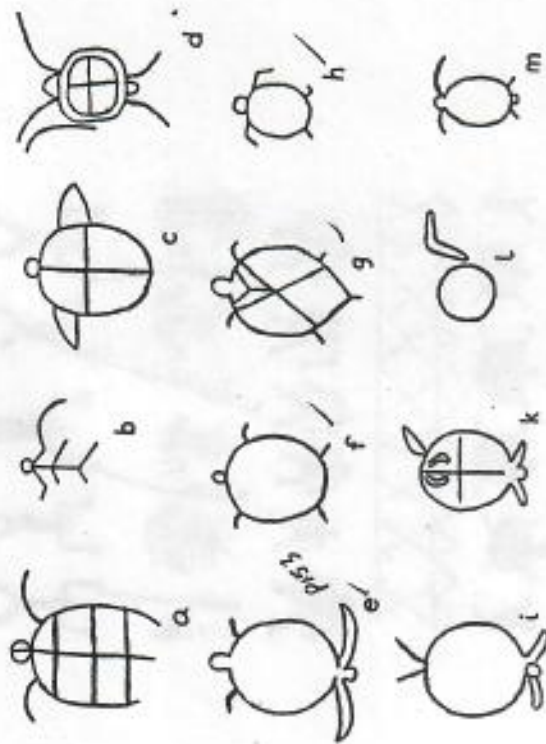


FIGURE 132.—Leeward Islands turtle petroglyphs: a-c, on facing stones of ancient chief's house platform at Tevaitoa, Raiatea, sketched by W. C. Handy, a, 15 inches long; d, on slab of marae Mamuu, Maeva, Huahine, 12.5 inches wide; e-h, on one slab of marae Taiuuu, Tevaitoa, Raiatea; i-k, on slab of marae Rauhuru, Maeva, Huahine; l, circle 7 inches in diameter on end slab of marae Mamuu, Huahine; m, single figure on slab of Anini marae, Huahine, length 8 inches.

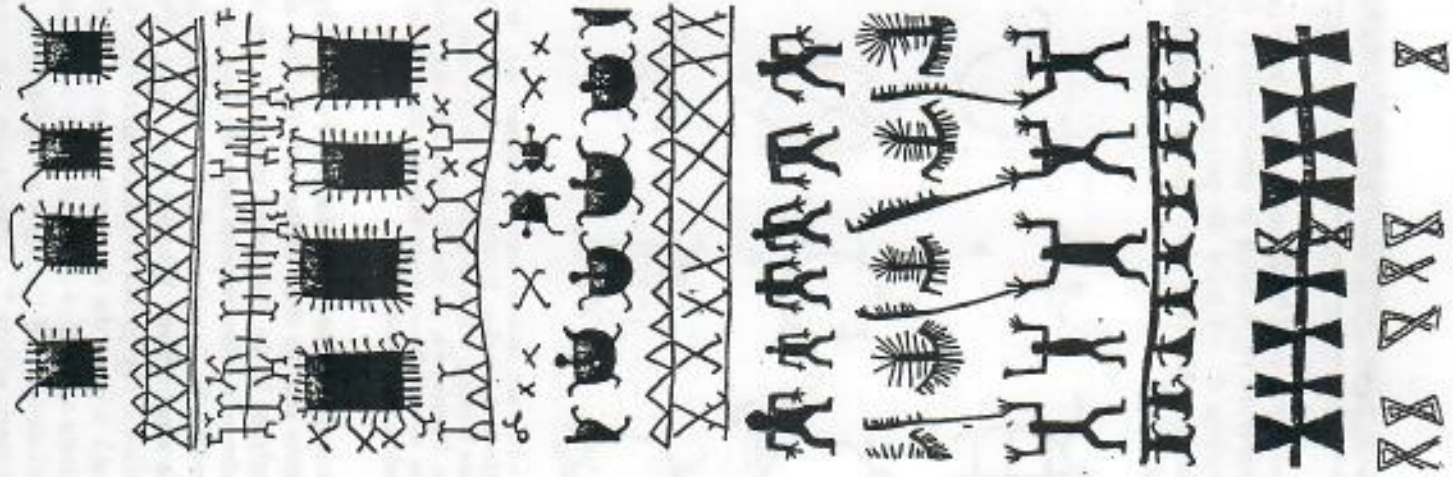
The representation of the human form in Polynesia by pecking two parallel lines for the limbs and the sides of the body has been discovered at only one group of petroglyphs in the Marquesas and one group in the Society Islands. The correspondence in other respects between these two groups is so detailed as to make tenable the hypothesis that the people who made both groups belonged to the same school. Whether these not un-Polynesian petroglyphs belong to the historic Marquesan and Tahitian cultures is a question. Linton (39, pp. 98, 149) says of the Marquesan group of figures: "Most of them differ sharply from any others observed in the Marquesas Islands. . . . The smoothly curved contours of the limbs are decidedly at variance with the canons of the historic natives." Likewise, the Tahitian group of petroglyphs differs from all others seen in the Society Islands and is at variance with the little which has survived of Tahitian art.

The Society Islands turtle petroglyphs marked with a cross, or crosses, or concentric circles, are a specialized form which would be indicative of Society Islands contact if found on other islands in Polynesia. But they and the headress petroglyphs have not been reported elsewhere and hence rest in the category of local evolutions.

The simple turtle figure appears in Hawaii (21, fig. 19, pls. 7, C, 8, A), though rarely. A similar turtle petroglyph in the New Hebrides is illustrated by MacMillan Brown (8, p. 100).

Three canoe figures on Lanai in Hawaii (21, fig. 19, pl. 7, G) are remarkable in having the same upward-tapering ends as the Huahine canoe petroglyphs, a feature of historic Society Islands war canoes and one which, the Lanai petroglyphs would indicate, was at one time present in the Hawaiian canoes. The canoe petroglyphs in New Zealand (28) picture a local type of canoe and therefore need not have had any connection, beyond a common practice of copying familiar objects, with the figures of canoes cut on the slabs of a Huahine marae. Besides, the Huahine petroglyphs were probably carved long after the Maoris left.

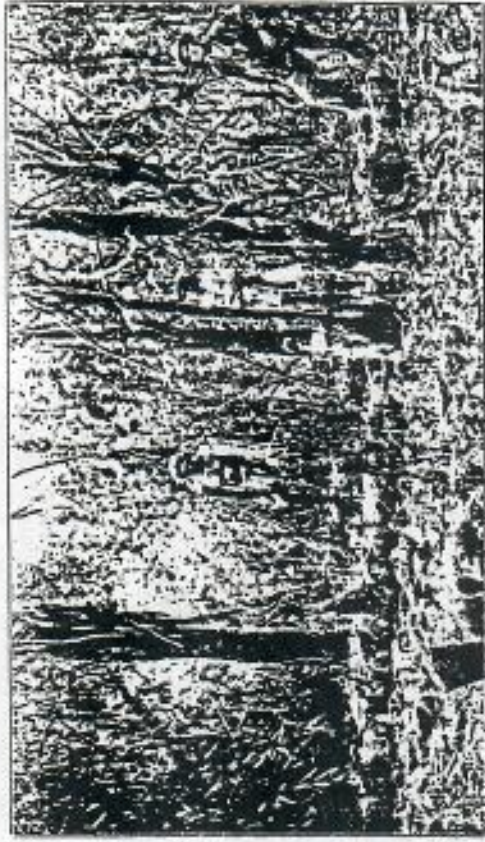
The New Zealand canoe figures are ornamented with spirals, and isolated spirals appear among them. Elsewhere in Polynesia there have been found no spiral petroglyphs from which to derive the New Zealand ones, but of course such a motive can be carried as a tattoo or wood carving design and be converted into a petroglyph at any time. Nevertheless, if the spiral was a common decorative motive as it was in New Zealand we should expect to find it somewhere among the numerous circle and concentric circle petroglyphs of Tahiti, the Marquesas, and Hawaii. The spiral petroglyph appears in the New Hebrides (41).



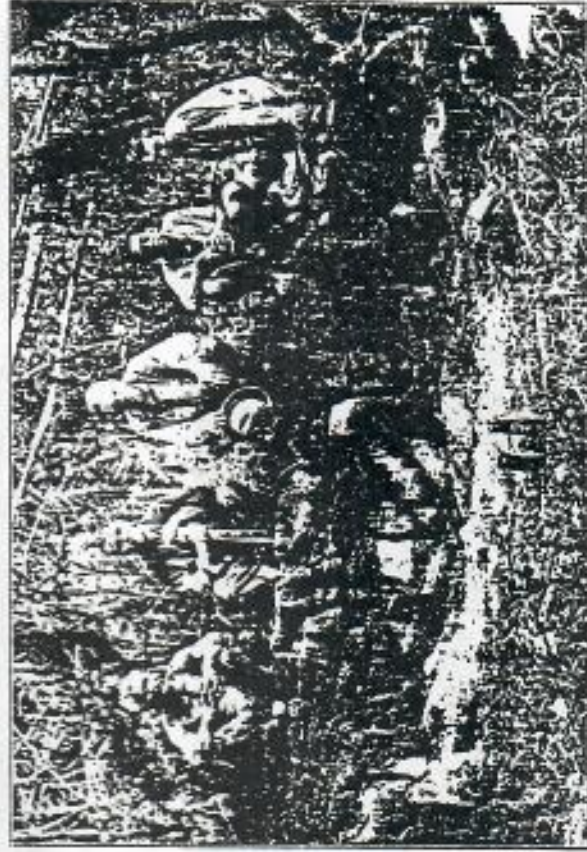
BIBLIOGRAPHY

1. ANDREWS, LORREN, A Hawaiian dictionary, Honolulu, 1853.
2. BANKS, SIR JOSEPH, Journal (Sir Joseph D. Hooker, editor), London, 1896.
3. BAESSLER, ARTHUR, Neue Südsee-Bilder, Berlin, 1900.
4. BENNETT, W. C., Archaeology of Kauai: B. P. Bishop Mus., Bull. 80, 1931.
5. BENNETT, W. C., Archaeological hikes in the Andes: Nat. Hist. Mag., March-April, 1933.
6. BEST, ELDON, Some place names of islands of the Society group: Polynesian Soc., Jour., vol. 26, pp. 111-115, 1917.
7. BOVIS, (LECRUYENANT DE VASSEAU), État de la Société Tahitienne à l'arrivée des Européens, Papeete, Tahiti, 1909. (Reprinted from Revue Coloniale, 1855.)
8. BROWN, J. M., The riddle of the Pacific, London, 1925.
9. BUCK, P. H., Ethnology of Tongareva: B. P. Bishop Mus., Bull. 92, 1932.
10. BUCK, P. H., Samoan material culture: B. P. Bishop Mus., Bull. 75, 1930.
11. CAILLOU, A. C. E., Histoire de la Polynésie Orientale, Paris, 1910.
12. COOK, JAMES, Captain Cook's journal during his first voyage round the world, 1768-71 (W. J. L. Wharton, editor), London, 1893.
13. COOK, JAMES, A voyage to the Pacific Ocean (third voyage), 1776-1780, London, 1785.
14. CORNEY, B. G., The quest and occupation of Tahiti by emissaries of Spain during the years 1772-1776, 3 vols., London, 1915.
15. DAVIES, JOHN, and DARLING, D., A Tahitian and English dictionary, Tahiti, 1831.
16. DUPREZET, L. I., Voyage autour du monde sur "La Coquille," 1822, 1823, 1824, 1825, historical and hydrographic atlas, Paris, 1827.
17. ELLIS, WILLIAM, Polynesian researches, vols. 1-4, London, 1831-1842.
18. EMORY, K. P., Archaeology of Hialekaka: B. P. Bishop Mus., Occ. Papers, vol. 7, no. 11, 1921.
19. EMORY, K. P., Archaeology of Nihoa and Necker Islands: B. P. Bishop Mus., Bull. 53, 1926.
20. EMORY, K. P., Archaeology of the Polynesian Equatorial Islands, manuscript in B. P. Bishop Museum. (Includes chapter on Phoenix Islands by Gordon Macgregor).
21. EMORY, K. P., Island of Lanai: B. P. Bishop Mus., Bull. 12, 1924.
22. EMORY, MA. and MRS. K. P., L'Art Tahitien: Soc. Études Océaniques, Bull. 19, pp. 236-239, 1927.
23. EMORY, K. P., Recent petroglyph discoveries on Tahiti: Soc. des Études Océaniques, Bull. 39, pp. 138-143, Papeete, 1931.
24. EMORY, K. P., Stone structures of the Tuamotu Archipelago, manuscript in B. P. Bishop Museum.
25. EMORY, K. P., Traditional history of Society Islands marae, manuscript in B. P. Bishop Museum.
26. FORNANDER, ABRAHAM, The Polynesian race, 4 vols., London, 1880.
27. GIFFORD, E. W., Tongan society: B. P. Bishop Mus., Bull. 61, 1929.
28. HAMILTON, H., The Kaingaroa carvings: Polynesian Soc., Jour., vol. 34, pp. 356-362, 1925.
29. HANDY, E. S. C., History and culture in the Society Islands: B. P. Bishop Mus., Bull. 79, 1931.
30. HANDY, E. S. C., Homes, boats, and fishing in the Society Islands: B. P. Bishop Mus., Bull. 90, 1931.

31. HAWKSWORTH, JOHN, An account of the voyages undertaken by the order of the present majesty for making discoveries in the Southern Hemisphere, 3 vols., London, 1773.
32. HENRY, TEVIRA, Ancient Tahiti: B. P. Bishop Mus., Bull. 48, 1928.
33. HUCENIN, PAUL, Raiatea la sacrée, Neuchâtel, 1902.
34. ROCH-GINGSBURG, THÉODORE, Südamerikanische Felszeichnungen, Berlin, 1907.
35. LACROIX, A., Les roches alcalines de Tahiti: Société Geol., ser. 4, vol. 10, Paris, 1910.
36. LEE, IMA, Captain Bligh's second voyage to the South Seas, London, 1920.
37. LINNÉ, GEORGE (CAPTAIN), Emplacement exacte de la maison des missionnaires Espagnols: Soc. Études Océaniques, Bull. 34, pp. 386-389, 1929.
38. LINNÉ, GEORGE (CAPTAIN), Excursion dans la vallée Vaiote au Pari: Soc. Études Océaniques, Bull. 43, pp. 47-54, Papeete, 1932.
39. LINTON, RALPH, Archaeology of the Marquesas Islands: B. P. Bishop Mus., Bull. 23, 1925.
40. LOWERY, RICHARD, History of the London Missionary Society, vols. 1, 2, London, 1895.
41. LUGUET, G. H., L'Art Néo-Calédonien: Travaux et Mémoires de l'Institut d'Ethnologie, vol. 2, Paris, 1926.
42. MARAU-TAAROA, Mémoires of Arii Taimai (her mother), edited by Henry Adams, privately printed, Paris, 1901.
43. MARCANTONI, PASCAL, Histoire de Huahine: Soc. Études Océaniques, Bulls. 25, 26, Papeete, 1928.
44. MCKEAN, W. C. Archaeology of Tonga: B. P. Bishop Mus., Bull. 60, 1929.
45. MOZANNOUR, J. A., Voyage aux îles du grand océan, Paris, 1837.
46. PARKINSON, SYDNEY, Journal of a voyage to the South Seas, London, 1873.
47. ROPIREAU, ANRÉ, Notes sur l'île Maupiti: Soc. Études Océaniques, Bull. 45, pp. 113-129, 1932.
48. ROUTLEDGE, S. and K., Notes on some archaeological remains in the Society and Austral islands: Roy. Anthropol. Inst., Jour., vol. 51, 1921.
49. STOKES, J. F. G., Notes on the city of refuge, Hoonanau, Hawaii, manuscript in B. P. Bishop Museum.
50. STOKES, J. F. G., Whence Paoa? Hawaiian Hist. Soc., Papers, no. 15, 1928.
51. STOKES, J. F. G., Ruins at Hoonanau, manuscript.
52. SUDRAT, L. G., Sur les anciens habitants de l'île Pitcairn: L'Anthropologie, vol. 15, pp. 369-371, Paris, 1904.
53. TATI, (TATI SALON), Notes (an extensive collection of genealogies, chants, and notes made by Tati during his lifetime), manuscript in B. P. Bishop Museum.
54. THOMSON, W. J., Te Pito te Honus, or Easter Island: U. S. Nat. Mus., Ann. Rep., 1889.
55. THURM, T. G., Tales from the temples: Hawaiian Ann. for 1908, Honolulu, 1909.
56. TYERMAN, DANIEL, and BENNET, GEORGE, Journal of their voyages and travels (compiled by James Montgomery), 2 vols., London, 1831.
57. WEBBER, JAMES, Views in the South Seas, London, 1808.
58. WILSON, JAMES, A missionary voyage to the southern Pacific Ocean, 1796-1798, in the ship "Duff," London, 1799.



A



B

INLAND MARAE OF PAPEROO VALLEY, TAHITI: A, PLATFORM (AHU) AT ONE END OF PAVED COURT OF MARAE AT ITEFAATAUTAU (SITE 76); B, SHRINE AT FUTOURA (SITE 75).



A

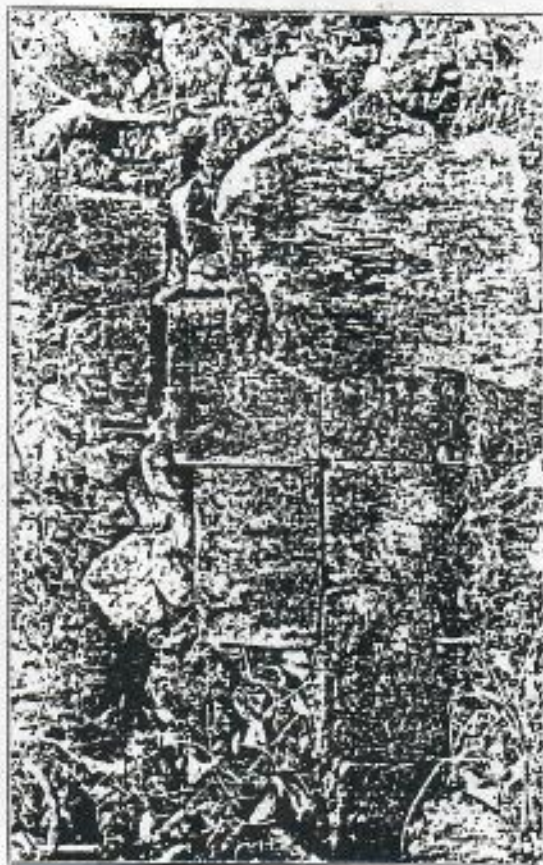


B

STONEMEN OF INLAND MARAES, TAHITI: A, CORNER OF ENCLOSURE AT MARAE TEUA, OROFERE VALLEY (SITE 23), PHOTO BY E. S. C. HANDY; B, TOP OF WALL OF ENCLOSURE ADJOINING A MARAE AT URUFARO, TETAMUNU PLATEAU (SITE 18).

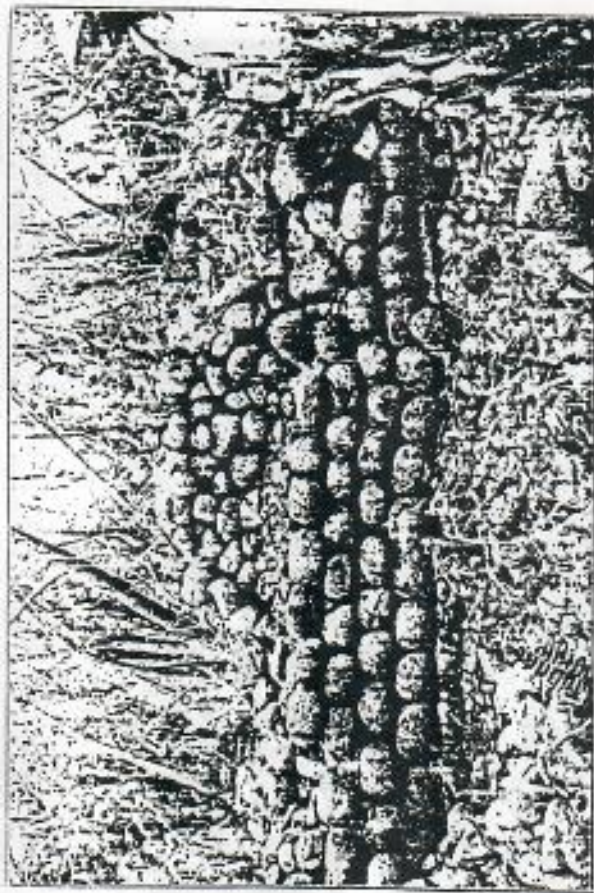


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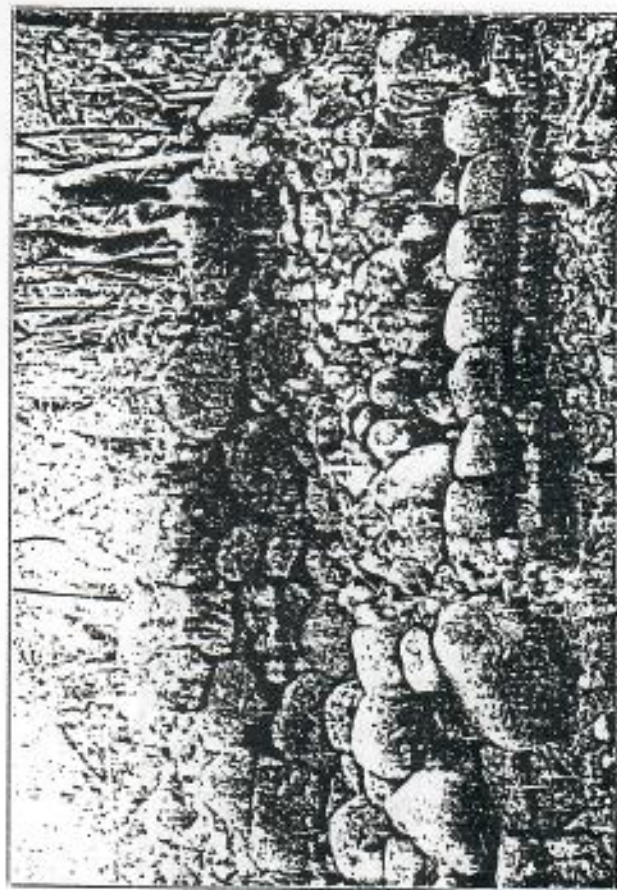


B

MOOREA MARAES INTERMEDIATE IN TYPE BETWEEN THE COASTAL AND INLAND MARAES: A, MARAE TERORO, AFAREAITU (SITE 95), VIEW FROM EAST; B, MARAE TEIPO, HAAPITI (SITE 90), CENTRAL UPRIGHT (HEIGHT, 37 INCHES) AGAINST FACE OF JHU.

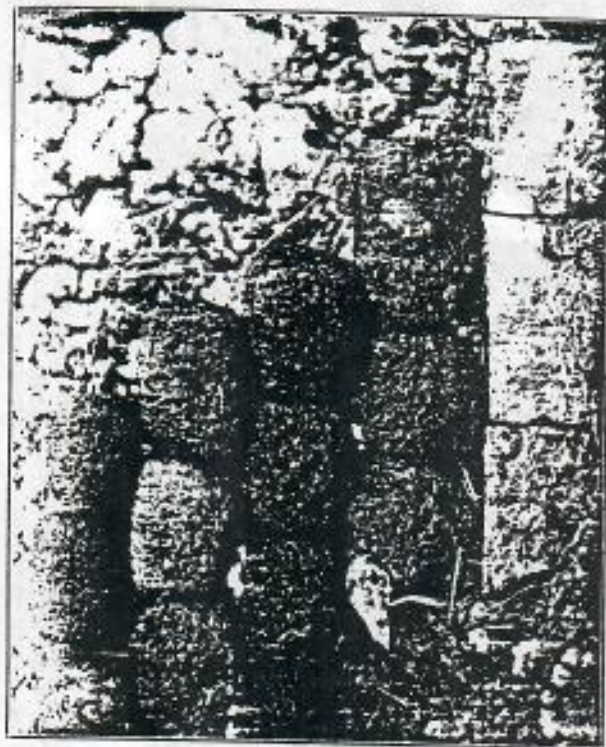


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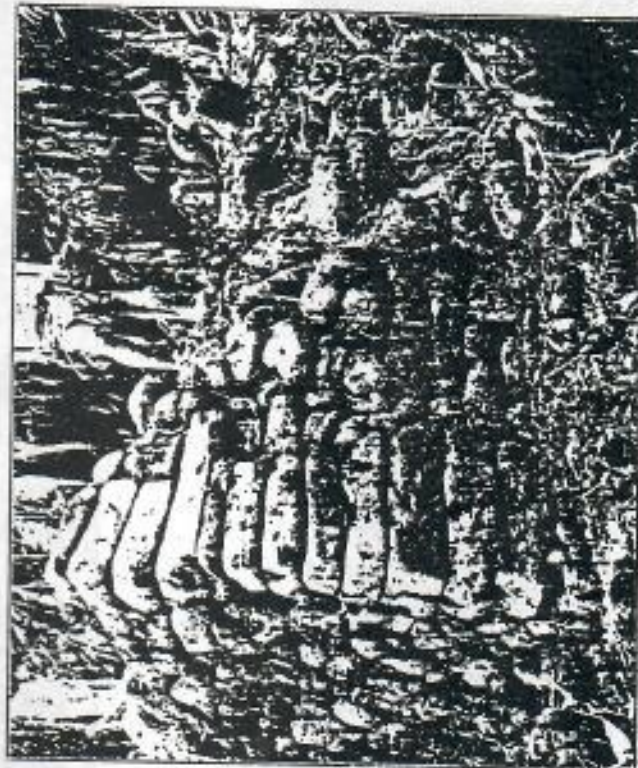


B

STONEWORK OF TAHITIAN MARAE, MARAETAATA (SITE 209): A, OUTER FACING OF COURT WALL, IN WHICH THE UPPER COURSES HAVE FALLEN AWAY REVEALING THE ROUGH INNER FACING, WEST WALL OF CENTRAL MARAE; B, WALL OF MARAE OF COASTAL TYPE OVERLAPPING CORNER OF COURT WALL OF MARAE OF INLAND TYPE.

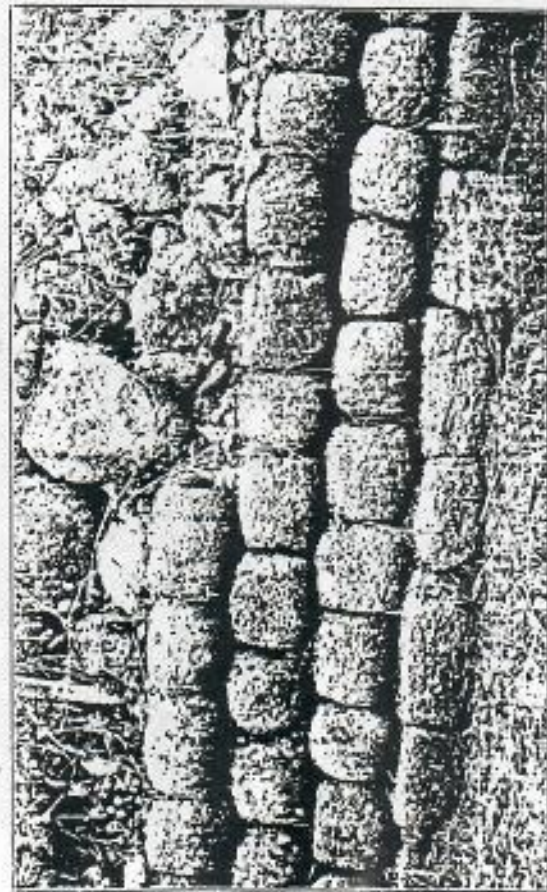


A

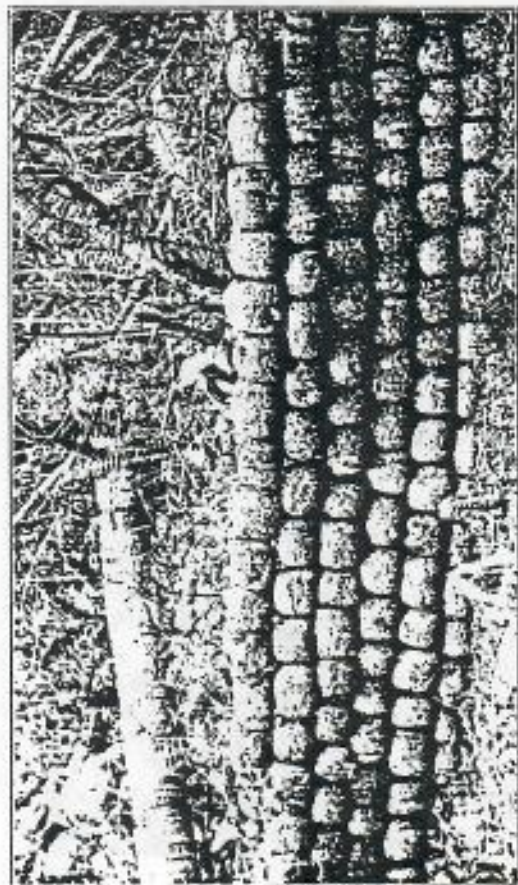


B

MARAE FACINGS, TAHITI: A, FIRST COURSE OF *AHU* FACING OF MARAE MAHIAI ATYBA (SITE 31); B, CORNER OF INLAND MARAE BUILT ON A TERRACE, MARAE AT TEPAI, PAPENOO, NORTHEAST CORNER (SITE 69).



A



B

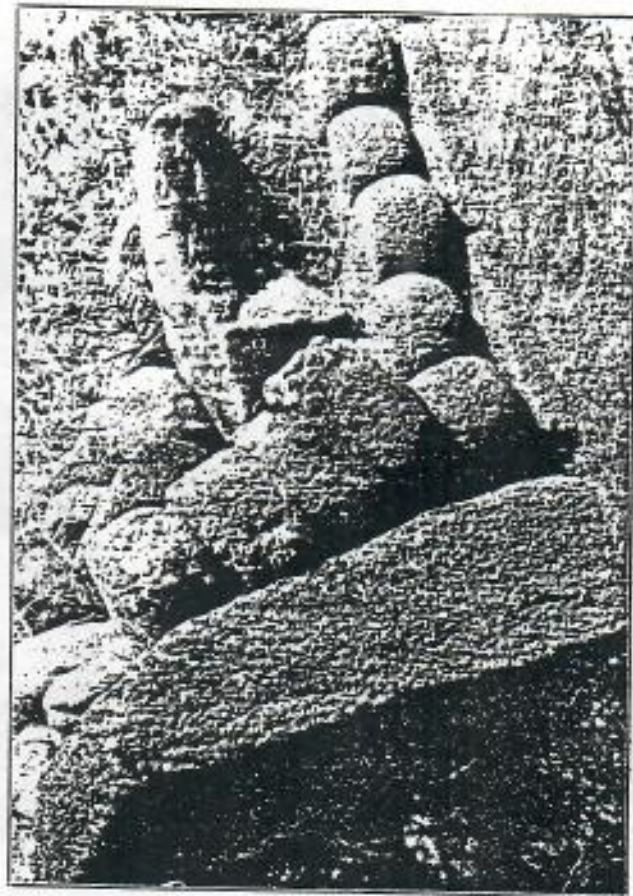
OUTER FACING OF COURT WALL OF MARAE ARAHUARAHU, PAEA (SITE 29):
A, FIRST COURSE OF CURBS AND UPPER COURSES OF ROUND-FACED STONES,
NORTH WALL; B, UPPER COURSES OF SOUTH WALL (FIRST COURSE BURIED).



A

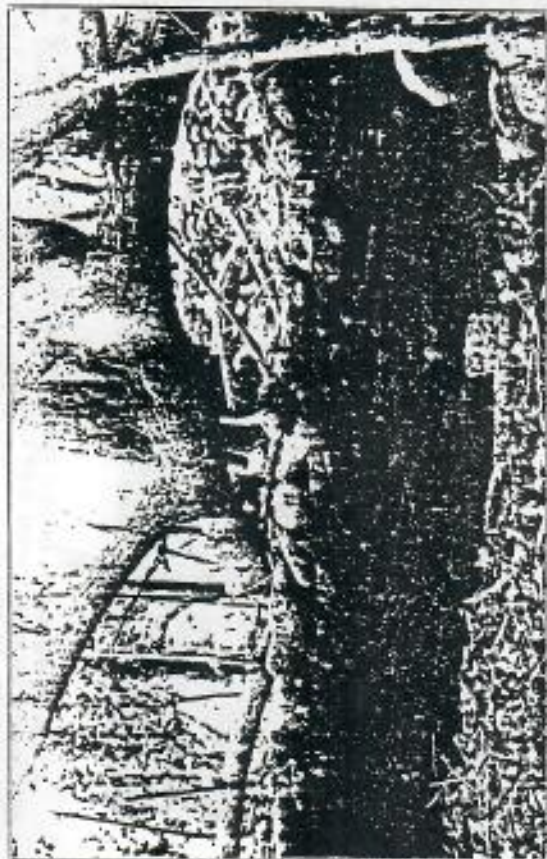


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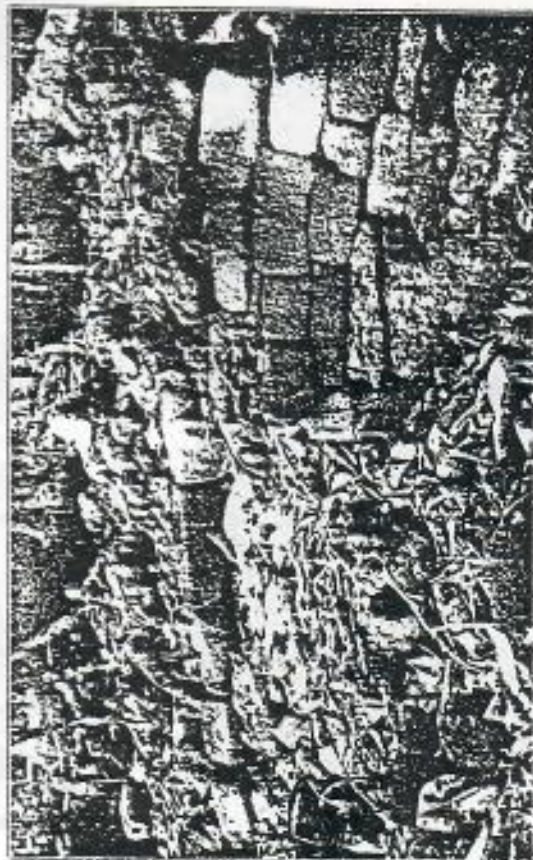


C

MARAE FEATURES: A, LIMESTONE SLAB BACKREST (TUTURIRAI) AT MARAE
MATAIREARAHU, HUAHINE (SITE 139); B, BASALT BACKREST, 19 INCHES HIGH, ON
COURT OF MARAE TETILI, MOOREA (SITE 93; FIG. 66, NO. 7); C, SOUTH CORNER OF
COURT WALL OF MARAE AT POAHOA, MOOREA (SITE 83).

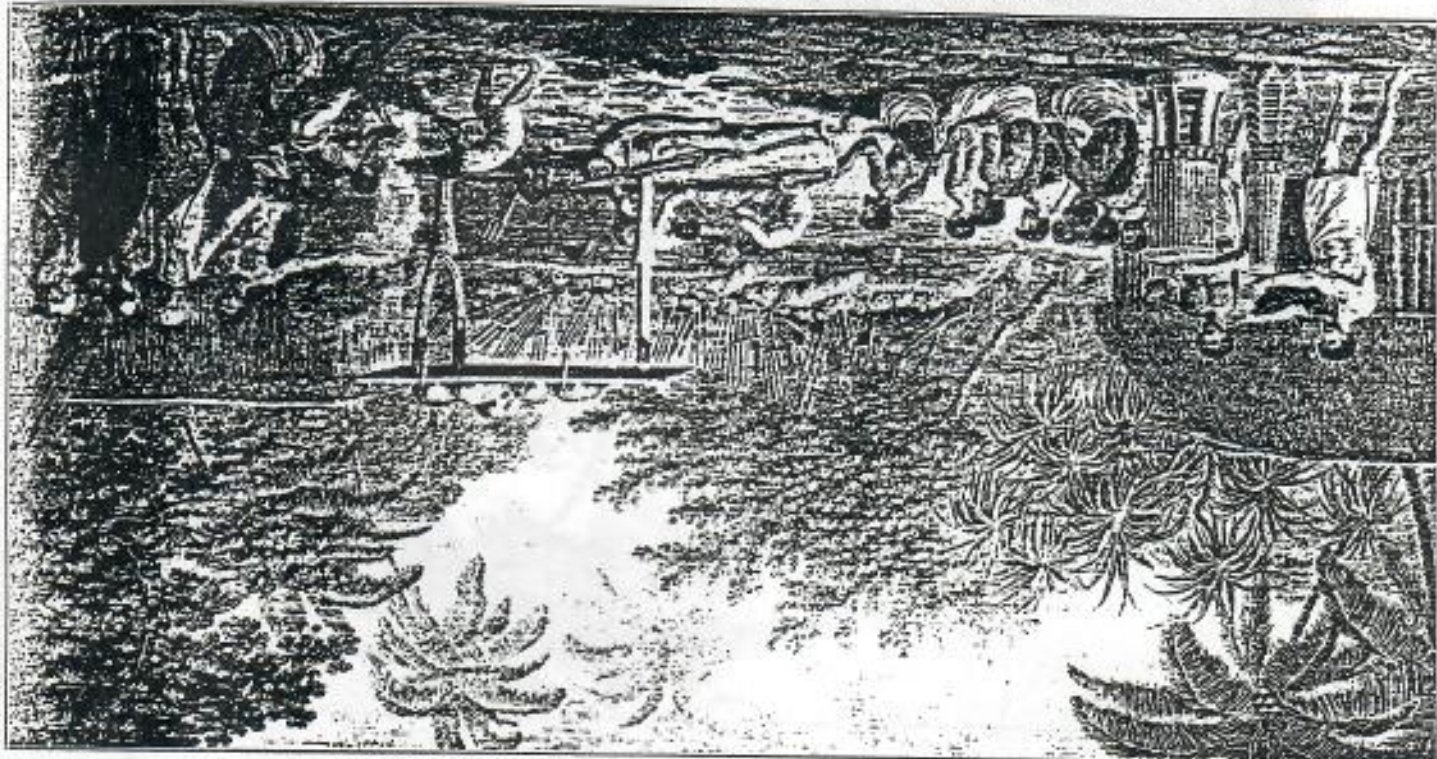


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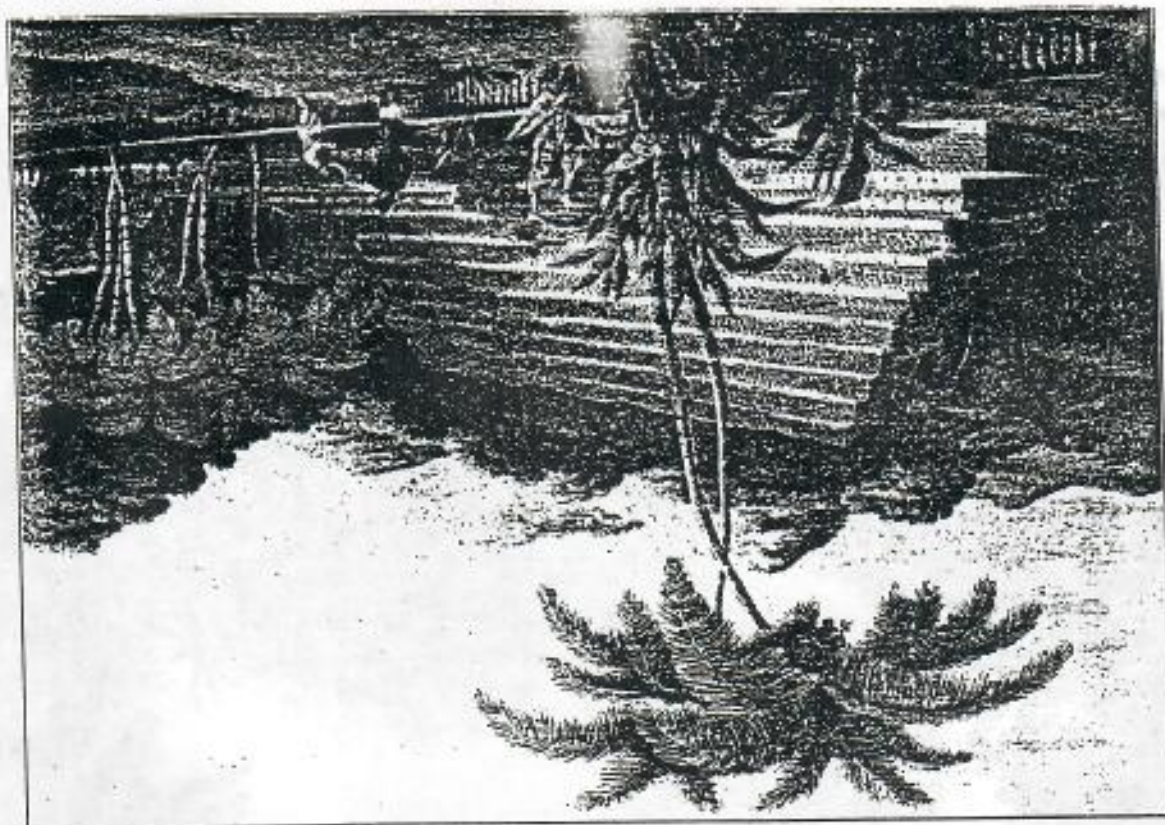
B

MARAE FACINGS, MEETIA: A, OUTER FACE OF EAST COURT WALL OF MARAE AT TE MATAWAI (SITE 105) SHOWING TOP COURSE OF SEA-WORN BOULDERS; B, FACING OF SECOND STEP, AND FIRST COURSE OF UPPERMOST STEP OF *AHU* OF MARAE AT SITE 104.

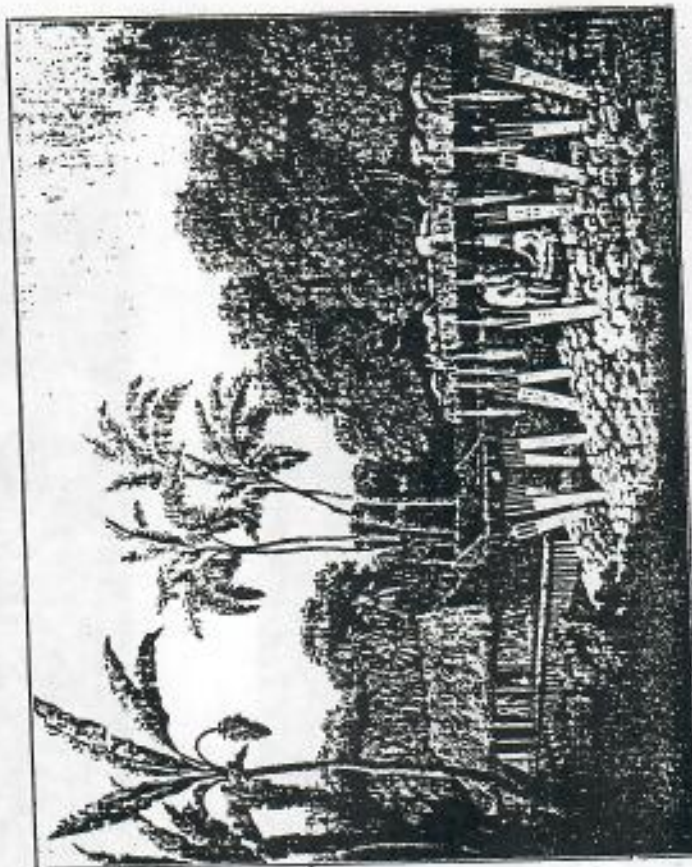


CAPTAIN COOK AT MARAE OF POKARE I IN 1770; PROBABLY THE PLATFORM IN FRONT OF MARAE KAHARAPAATA, PAPA (SITE 20). DRAWN BY WERRER.

MARAE MAHAIATEA, PAPEA, TAHITI (SITE OF THE RAISED HOUSE OF THE GOD ON LEFT). DRAWN BY CAPT. WILSON IN 1797.

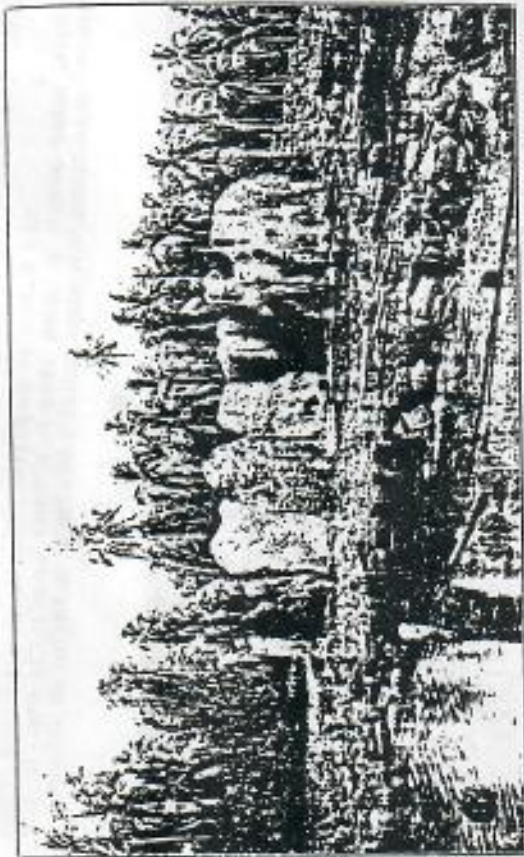


A

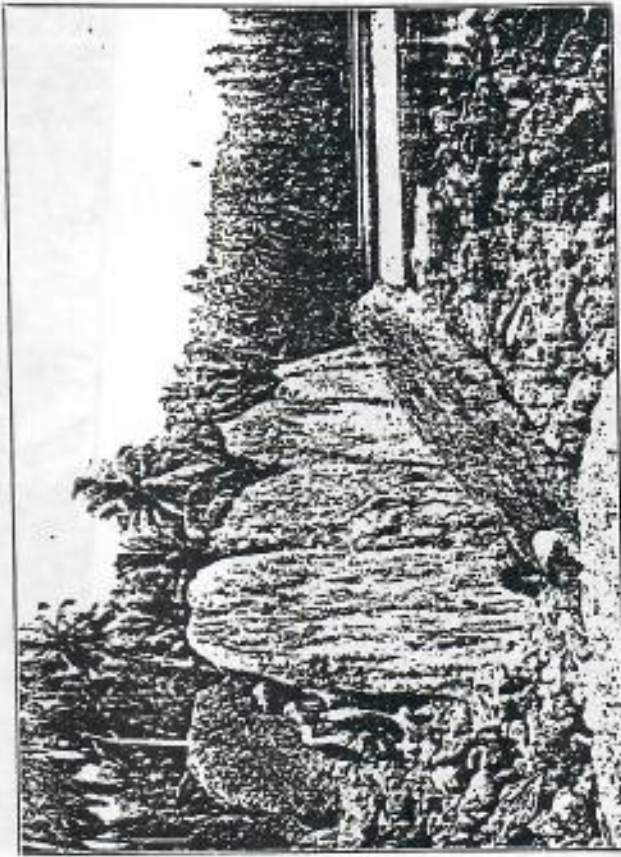


B

A. MARAE (TAHURU) IN THE VICINITY OF FARE, HUAHINE; PRIEST IS FACING AHO ALONG BACK OF WHICH RISE CARVED UNU BOARDS; RAISED HOUSE OF THE GOD ON LEFT. DRAWN BY WEBER IN 1777. B. MARAE TAHITI, NORTH SIDE OF PUNARU VALLEY, TAHITI (SITE 15); AHO (ITS ROUGHNESS EXAGGERATED) MARKED BY THE ROW OF CARVED UNU. DRAWN BY CAPT. WILSON IN 1797.



A

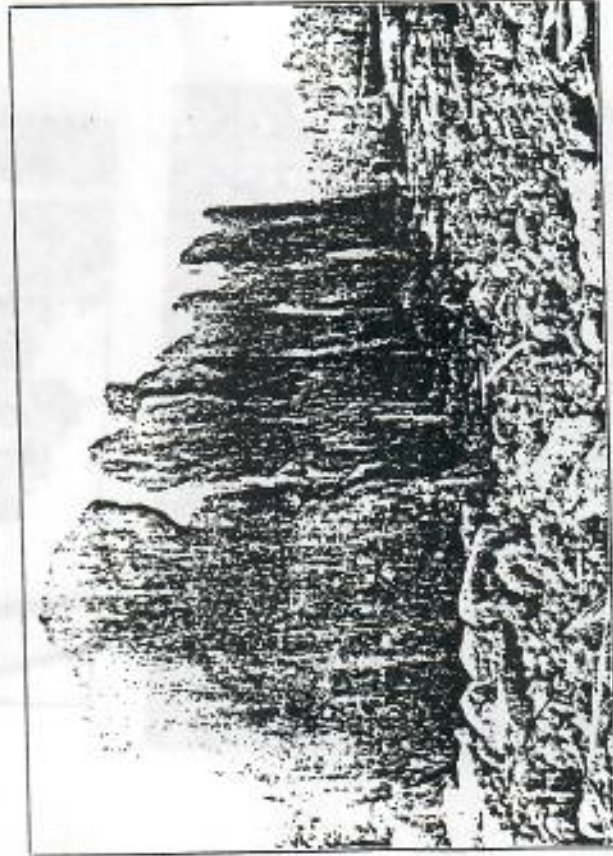


B

MARAE FARE MIRO, AT TIPOTO, HUAHINE (SITE 157): A, AHU ON PAVED PLATFORM PROJECTING ONTO ARM OF THE LAGOON, VIEWED FROM NORTHWEST; B, SOUTH END OF EAST FACE OF AHU, SHOWING FULL OF CORAL RUBBLE.



A

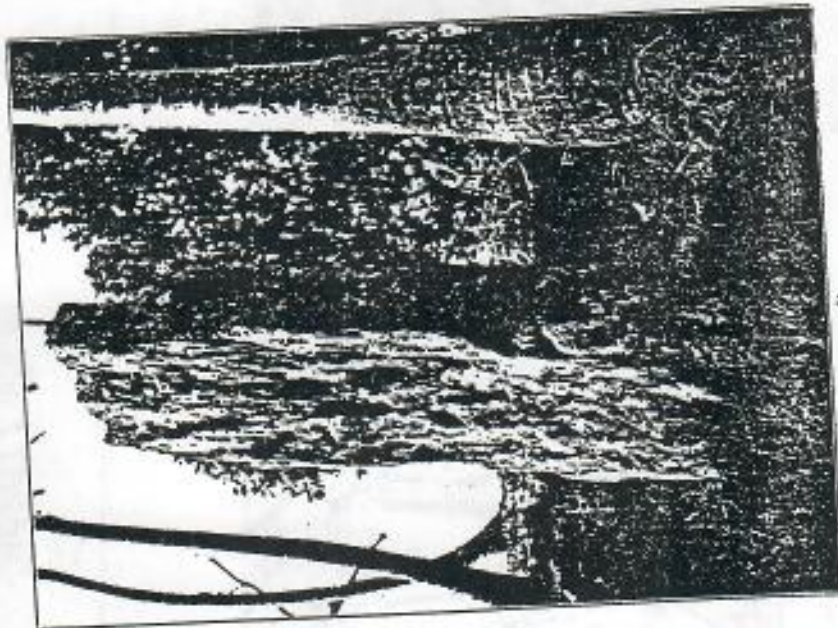


B

MARAE FARE MIRO, AT TIPOTO, HUAHINE (SITE 157): A, NORTH END OF EAST FACE OF AHU; B, NORTH END AND WEST FACE OF AHU.

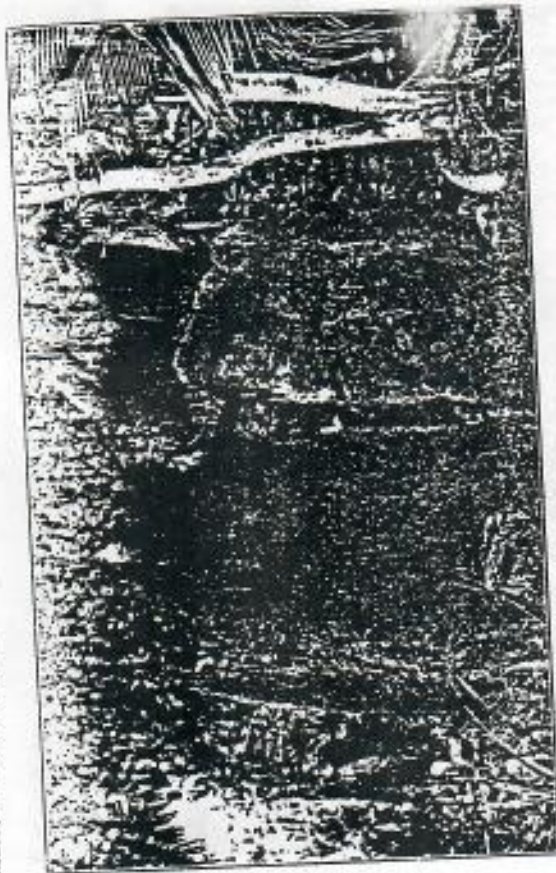


A

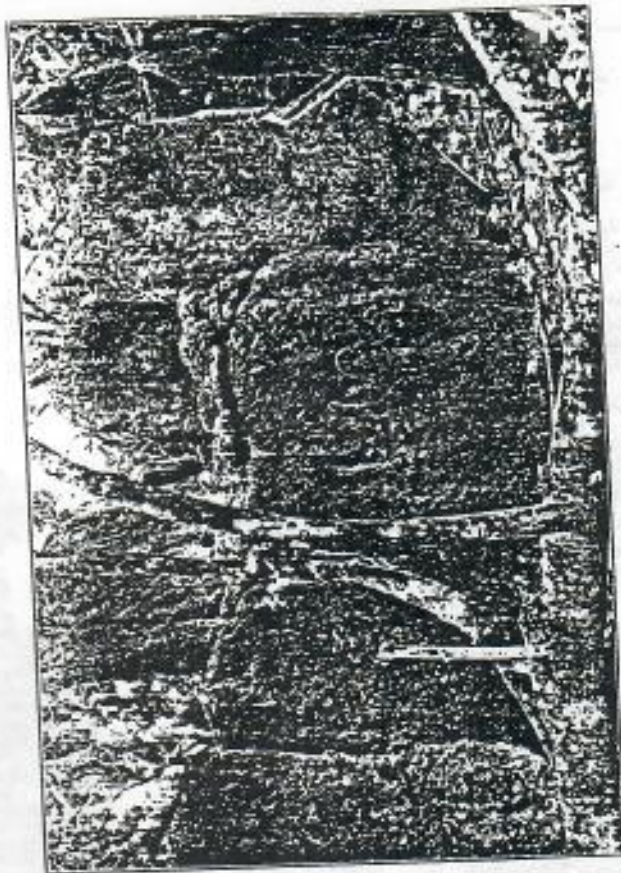


B

MARAE FEATURES: A, FACING SLABS OF COURT FACE OF MARAE TAINUU, TEVA-
VOOA, PAIATEA (SITE 200), GIRL STANDS BESIDE A LIVING SLAB 13 FEET HIGH;

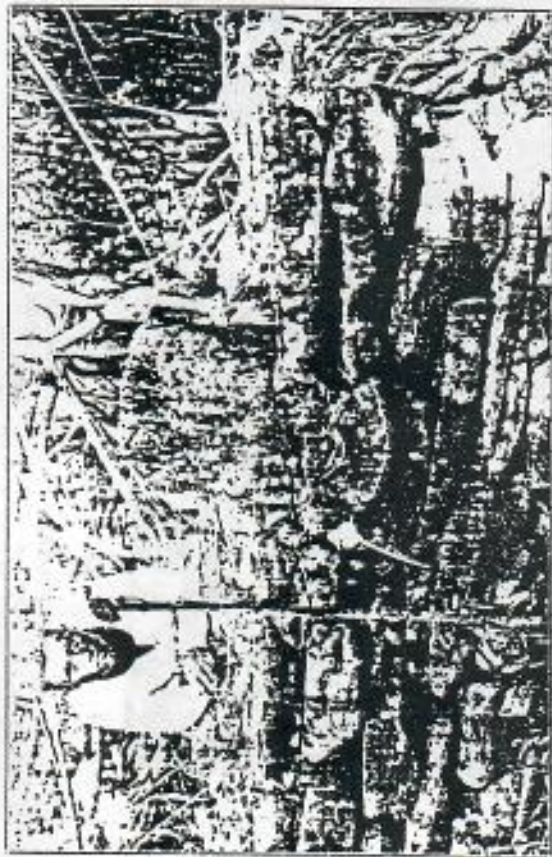


A

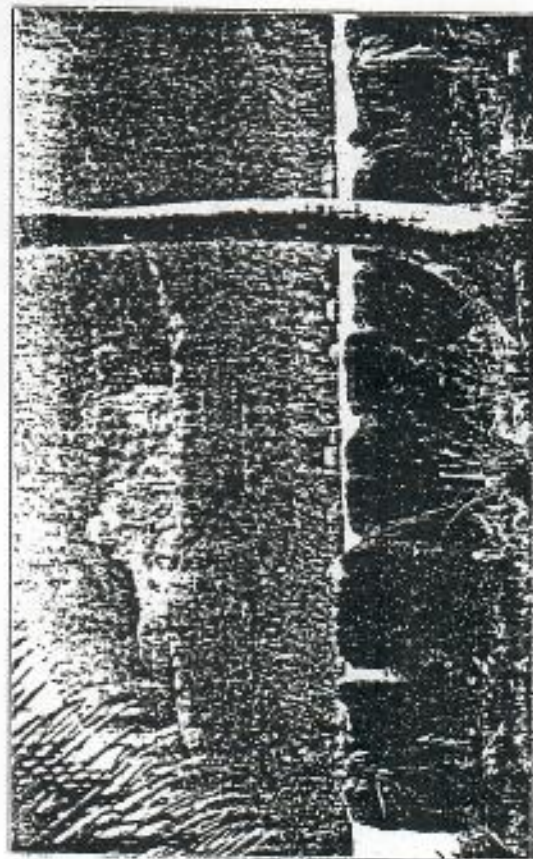


B

MARAE OF HUAHINE: A, MARAE MAKUNU (SITE 119), NORTHWEST CORNER OF
AHU OF TWO PLATFORMS, CORNER 10 FEET HIGH; B, MARAE ANINI (SITE 182),
COURT FACE OF AHU OF TWO PLATFORMS AT NORTH END.



A

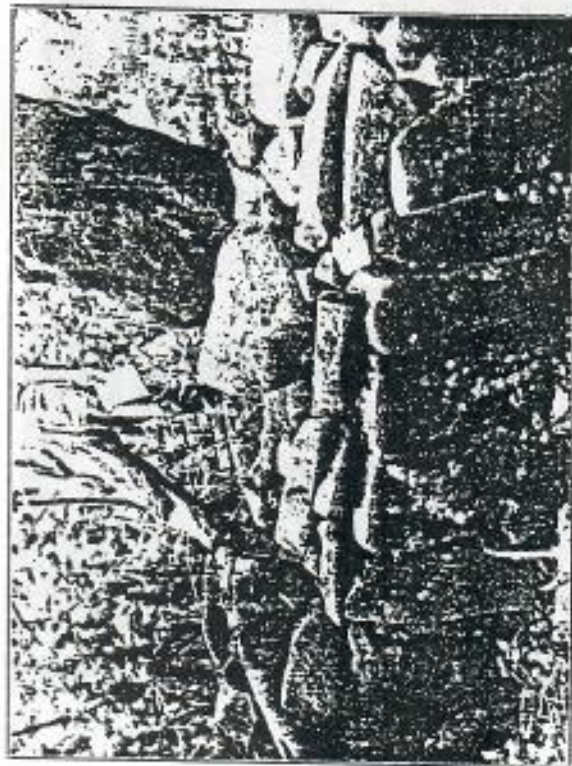


B

MARAE FEATURES: A, CORNER OF COURT ENCLOSING WALL OF MARAE MAYA-IRAKAHI AT MAEVA, HULAHINE, SHOWING BACKREST SET ON WALL (SITE 113), VIEW FROM WEST; B, VIEW OF MARAE TEMARUTEAOA, ANAU, BORABORA (SITE 253), VIEW FROM NORTHWEST.



A



B

MARAE TAUMARIARI, AT HIRIVARI, OPOA (SITE 189): A, SOUTH END OF PAVEMENT OF FLAGS; B, FACING OF EAST SIDE OF PLATFORM NEAR THE LARGEST UPRIGHT, WHICH STANDS IN BACKGROUND.



A



B

STONE STRUCTURES: A, POST-EUROPEAN TOMB OF A CHIEF, CONSTRUCTED WITH SLABS FROM A MARAE CALLED FARUJAUAPA, AT PAHIO POINT, TAHAAI; B, STONE SEATS ALONG NORTHEAST SIDE OF COUNCIL PLATFORM AT MARVA, HUAHINE (SITE 128, SLABS 1 AND 2, FIG. 86).



A



B

PETROGLYPH OF MOURNER'S COSTUME, CARVING 35 INCHES HIGH, ROCK IN STREAM BED, TIPI-ARU, TAHITI; B, REPRESENTATION OF MOURNER'S COSTUME, CARVING 35 INCHES HIGH, TIPI-ARU, TAHITI.

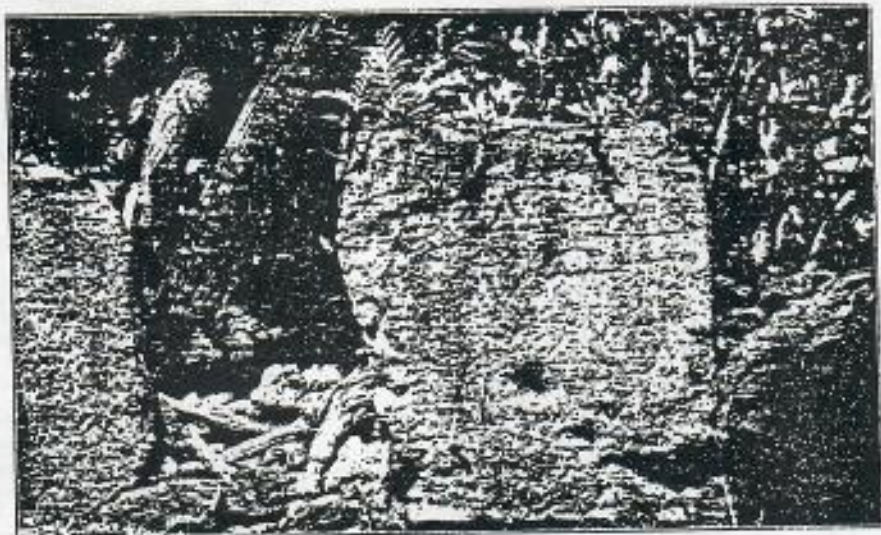


A



B

HORAHORA PETROGLYPHS: A, TURTLE PETROGLYPH (FIG. 130, D) ON COURT FACE OF THIS AHU OF MARAE FAREOBU (SITE 223); B, OF HI HONU (TURTLE STONE).



A



B

BORABORA PETROGLYPHS: A, TURTLE PETROGLYPH (FIG. 130, D) ON COURT FACE OF THE AHU OF MARAE FAREOFU (SITE 223); B, OFAI HONGU (TURTLE STONE).

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Chapter 9

Turtles, priests, and the afterworld: a study in the iconographic interpretation of Polynesian petroglyphs

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Recent archaeological studies attest to a burgeoning interest in the reconstruction of prehistoric thought patterns (Hodder 1982a, b; Leone 1982), based on the assumption that 'recovery of mind' is an attainable goal. This assumption is related to the general view that 'archaeology is a cultural science, and that all social strategies and adaptation must be understood as part of cultural, symbolically meaningful contexts' (Hodder 1982b, viii). It has been argued that the proper focus of archaeological studies centered on cognition should be particularistic rather than general:

There can never be any direct predictive relationships between material culture and social behavior because in each particular context general symbolic principles, and general tendencies for the integration of belief and action are rearranged in particular ways as part of the strategies and intents of individuals and groups. The 'whole' is particular, dependent on contexts. (Hodder 1982a, 217)

This essay - an exploration into the archaeological study of cognition - focusses on a narrow topic of inquiry, turtle petroglyphs specifically in the Marquesas Islands of Eastern Polynesia, but situated within the broader context of Polynesian cultures. My interest in the significance of turtle motifs stems from the discovery of a remarkable petroglyph site (figs. 9.1, 9.2) on Nukuhiva Island, in the northern Marquesas. The Hatiheu Valley boulder site exhibits

one of the finest arrays of petroglyphs hitherto known from the Marquesas. The eight turtles included among the representations that nearly cover the decorated face of the boulder are notable not only as the first turtle motifs recorded from the Marquesas, but also because of their evident deliberate arrangement in clusters and their execution in a patterned portrayal showing adherence to easily recognizable stylistic models.¹ Turtle petroglyphs are already well known from the Societies and other islands in Eastern Polynesia, so that discovery of similar motifs in the Marquesas seemed to open a promising avenue for comparative research. The decision to focus only on turtle motifs was made not because of any *a priori* assumption that other petroglyph types are less significant, but rather because turtle motifs are unambiguously identifiable representations, and because ethnographic evidence for the significance of turtles in Polynesian culture provided a convenient point of departure for research into the symbolic value of the motifs.

In focussing on turtle motifs, an attempt is made to demonstrate the usefulness of analyzing petroglyphs within a broad framework of ethnographic and archaeological data. Such an approach allows investigation into the possible meaning of iconographic subjects through reconstruction of their original context. But while this method is attractive in cases where there are no textual records to explain the context of an iconographic message, it has an important drawback which



Fig. 9.1. Petroglyph boulder in the Hatiheu Valley, Nukuhiva. Behind the boulder is a terraced ceremonial ground, the Kamuihei *rohua*.

has been noted by one of its chief advocates, André Leroi-Gourhan: the total value of the interpretation depends upon the value of the reconstruction (1975, 49). The nature of the archaeological record in most parts of the world is such that iconographic interpretation of prehistoric art through ethnographic inference has been more thoroughly explored in theory than in practice. In the Pacific, however, there is the advantage of a striking continuity between prehistoric and ethnographically documented cultures.

Despite the wealth of documentation for contact period Pacific Island cultures, few attempts have been made to analyze and interpret iconographic materials from this region by the proposition of hypotheses based on ethnological records. Moreover, the few investigators who have made use of ethnological records generally limited themselves to information given by native informants who were asked to explain the meaning of a specific motif (Ellis 1917, 346; Cox and Stasack 1970, 67-8). Such restricted use of the ethnographic record has limited potential because references to specific petroglyphs are exceedingly rare.

Most archaeological studies of Pacific Island petroglyphs have been carried out with the limited objective of compiling a descriptive inventory of motifs (e.g., Lavachery 1939; Linton 1925; Emory 1933; Cox and Stasack 1970; Frimigacci and Monnin 1980). Petroglyph inventories have been of considerable interest to researchers who have compared rock art motifs with ones known from mobiliary art and tattooing in an effort to define iconographic relationships between different islands and art forms (e.g., Handy 1938). However, the contribution of petroglyph studies to such research has been relatively minor and the chief value of this comparative work has been to point out strong relationships between motifs found in mobiliary art and tattooing (von den Steinen 1928; Begouen 1928).

Recent work by Frimigacci and Monnin (1980) in New Caledonia exemplifies the contribution which can be made by inventory-oriented petroglyph studies. By analyzing the spatial distribution of motifs, Frimigacci and Monnin were able to identify associations that are characteristic of different geographic regions of this large island. These characteristic

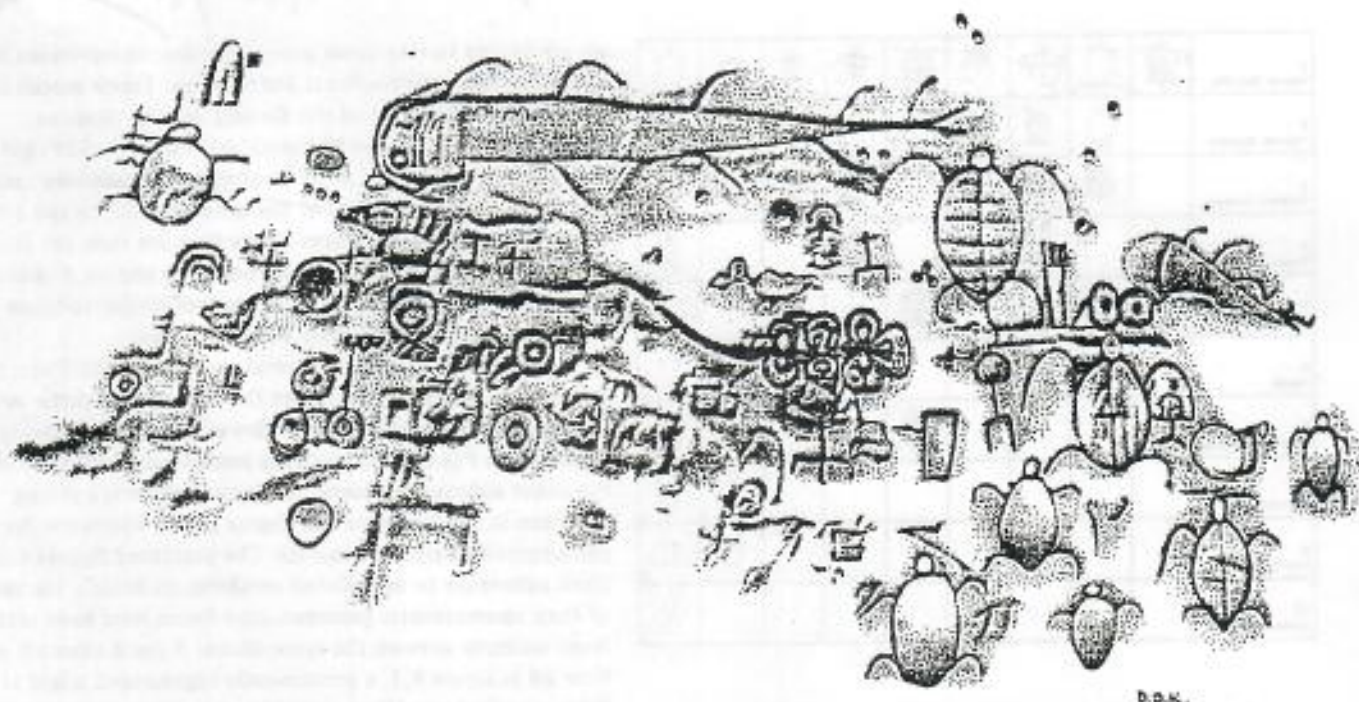


Fig. 9.2. Detail of the petroglyphs on the Hatiheu petroglyph boulder shown in Figure 9.1.

associations effectively distinguish certain regions, and it has been suggested that they may reflect cultural sub-groupings (Frimigacci and Monnin 1980, 52). Spatial analysis of rock art motifs, a method pioneered by André Leroi-Gourhan in the study of Paleolithic cave art, is attractive both because it produces a *catalogue raisonné* of motifs and because it maintains a fundamental distinction between representation and meaning.

Form and space

In order to classify the petroglyphs at the Hatiheu Valley boulder site on Nukuhiva (fig. 9.1) I adopted the system proposed by Leroi-Gourhan (1982) in his study of Paleolithic cave art. This morphological framework comprises four successive levels, or 'figurative states', without implying directional changes from one state to another. Thus, I avoid one of the main problems with early research on Polynesian decorative art, namely that relationships between motifs were interpreted in an evolutionary manner even though there was no empirical evidence for succession. Leroi-Gourhan's figurative states vary from the pure geometric, consisting of non-representational signs, to the analytical figurative, which tends toward naturalistic representation.

Pure geometric figures are signs which, unlike elements of the other figurative states, cannot be identified without information from oral or written sources. Pure geometric figures from the Hatiheu site include crosses, quadrilaterals, circles, and arcs. The value of identifying these signs as a separate category is that the study of repeated associations

between signs and other motifs may reveal statistically significant relationships, as has been the case in Paleolithic cave art. Unfortunately, such a study is not possible at the present time because most Pacific Island petroglyph sites are only incompletely recorded and little attention has been given to spatial associations of motifs.

Geometric figurative elements are also signs, but unlike pure geometric elements, the subjects which they represent are relatively identifiable. These elements are generally geometricized forms of animal or human figures which are represented elsewhere in more naturalistic state. Stick-man (*etua*) motifs with upraised arms and legs astraddle, known from Hatiheu and other Marquesan sites (Suggs 1961, 144), as well as from Marquesan decorated bamboos (Begouen 1928), are a good example of geometric figurative elements. *Etua* motifs are clearly related to the full length anthropomorphic *tiki* figures which are highly developed in Marquesan statuary and mobiliary art.

The *synthetic figurative* is an intermediary stage between the geometric figurative, tending towards non-figurative representations, and the *analytical figurative*, in which animals are portrayed with near accuracy of natural morphology. Synthetic figurative elements express essentials of form without the detail of the analytical figurative. The animal figures from the Hatiheu boulder are synthetic figurative motifs. They include three types of turtles, two fish, an unidentified supernatural animal, and a jungle fowl (fig. 9.1). The large fish carved in bas relief, dominating the other animals, is readily identifiable as a dolphin fish or *mahimahi*

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1 Raiatea, Societies									
2 Huahine, Societies									
3 Borabora, Societies									
4 Maui, Societies									
5 Easter Island									
6 Hawaii									
7 Nukuhiva, Marquesas									
8 Venus Lave, Fiji									
9 New Caledonia									
10 Aniwa, Vanuatu									

Fig. 9.3. Distribution of turtle petroglyph motifs in Oceania.

(*Corphyraena*). The turtle types are distinguished by the shape of the carapace, the size of the flippers, and the presence or absence of a line across the carapace. Those with the dorsal lines have a pointed carapace and larger front than back flippers (fig. 9.3, 7a). The three of this type are grouped with four others that also have pointed shells but differ by the absence of the dorsal line and a less pronounced difference between the front and back flippers (fig. 9.3, 7b). The third type, represented by three examples, one of which is situated well away from the group of other turtles, has an oval shaped carapace and front and back flippers of nearly equal size (fig. 9.3, 7c).

When the Hatiheu turtle motifs are compared with ones known from other Pacific Island sites, a number of stylistic trends become apparent. The Hatiheu motifs are abbreviated forms that express the essential features of natural morphology using a minimal number of lines. In contrast, two motifs from Easter Island (fig. 9.3, 5a, b) approach visual accuracy, while the other turtle figures shown in fig. 9.3 are geometricized and abbreviated forms in various degrees of development. Society Islands' turtle motifs exhibit the greatest diversity, varying from motifs displaying certain naturalistic elements (fig. 9.3, 1a-c, 2a, b, 4a) to others which are abbreviated (fig. 9.3, 1h, i, 2d, 3g, 4c), and geometricized (fig. 9.3, 1c-g, 2c, 3a-f).

Figure 9.3 presents the range of variation in all reported Pacific Island turtle petroglyph motifs. These are known mainly from Eastern Polynesia, with rare examples from Fiji, New Caledonia, and Vanuatu. In the absence of counts which would quantify the relative frequencies of the different motifs,

we are forced to rely upon non-systematic observations for an idea of their geographical distribution. Turtle motifs have been recorded on four of the Society Islands (Raiatea, Huahine, Borabora, and Maupiti), and Emory (1933) has noted that they are the most frequently encountered motif there. In contrast, in most of the other islands, turtles are comparatively rare. In places where they are rare, the motifs are usually isolated, while in the Societies and on Nukuhiva they are often found grouped in clusters similar to those characteristic of the Hatiheu Valley boulder.

Figure 9.3 highlights several stylistic trends. First, there are notable similarities between the abbreviated turtle motifs from the Societies, Marquesas, Hawai'i, and New Caledonia. Those from Fiji and Vanuatu are somewhat at variance from the other abbreviated forms. Moreover, there is a strong tradition in the Societies and Easter Island which involves geometrically patterned motifs. The patterned figures display close adherence to established aesthetic traditions, for some of their characteristic geometricized forms have been recorded from multiple sites on the same island. A good example is item 3d in figure 9.3, a prominently represented motif at Emory's *ofai honu* (Emory 1933), as well as at another nearby site recorded by myself in 1981. It is also interesting that items 3b, 3d, 3e, and 4b from figure 9.3 depict the front flippers departing from the head, a characteristic trait of Fijian motifs.

The turtle motifs are most obviously classified, however, by the degree of visual accuracy which they exhibit. There are two modes of departure from the most morphologically accurate motifs (fig. 9.3, 5a-b): (1) geometricization of the forms into patterned figures; and (2) abbreviation of the forms into simple figures with a minimum number of lines. Depiction of sexual dimorphism may account for some of the variability among motifs; those with long tails are probably males. Sexual differentiation on the basis of this criterion is particularly marked among motifs from Fiji, Hawai'i, and Borabora.

In the Marquesas, where the turtles like other figures in rock art are depicted in abbreviated form, more naturalistic turtle motifs are known from mobiliary art (von den Steinen 1920, fig. 215) and a highly geometricized form was widely employed in tattooing (Handy 1922).

The Marquesan cultural context

The Hatiheu Valley boulder is located in the interior of the valley on a slope near the upper portion of a series of paved stone terraces comprising a ceremonial ground, or *tohua*. A megalithic raised platform, notable both for its elaborate stonework and for an ancient banyan (*Ficus* sp.) growing on one corner, lies at the lower end of the terraces (figs. 9.4, 9.5). Judged on the basis of the size of the platform, its proximity to the *tohua*, the quality of the dry masonry construction, and the presence of the banyan (traditionally associated with sacred places), this stone structure is interpreted as a *me'ae*, the focal point of Marquesan religious ceremonies.⁷

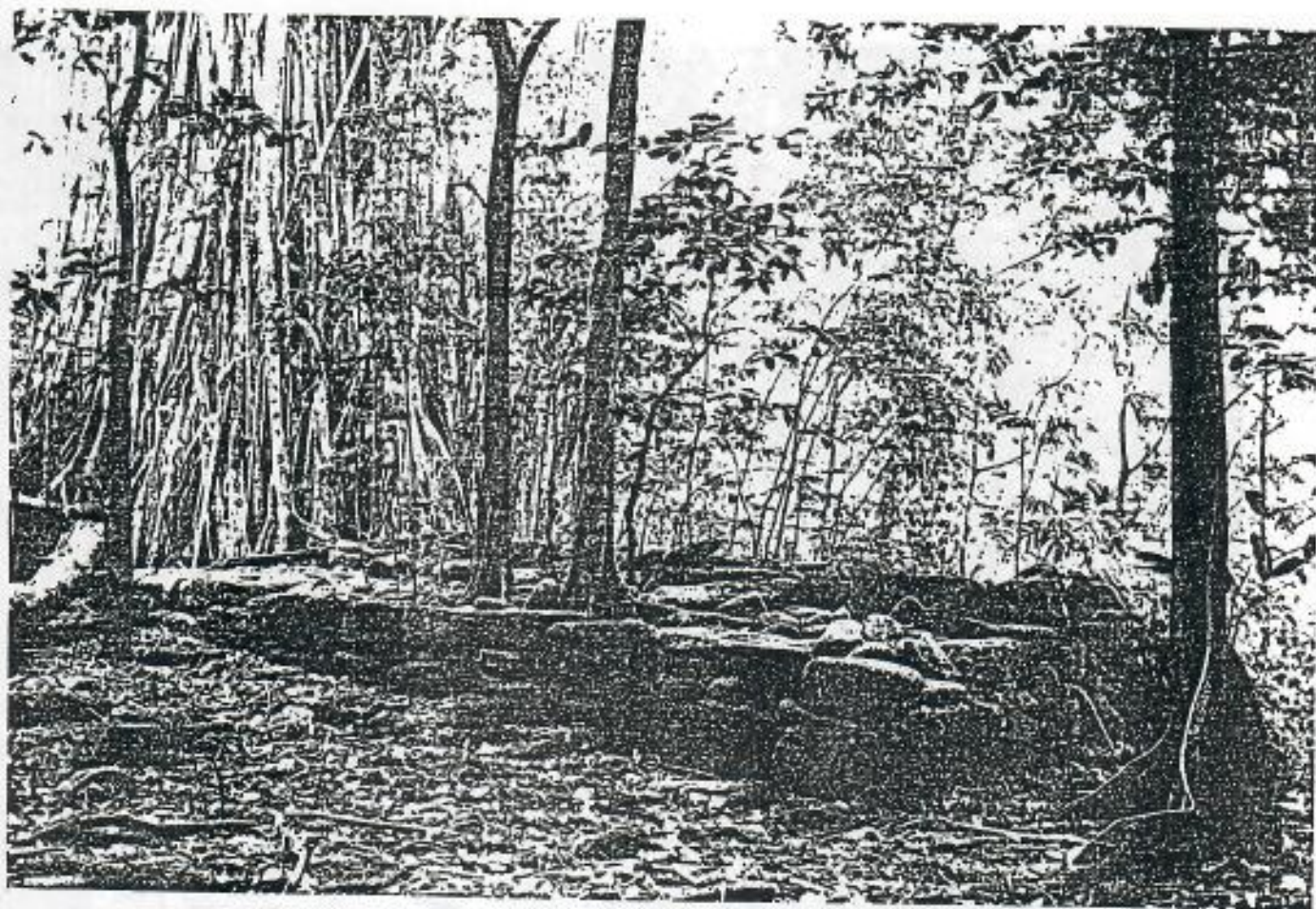


Fig. 9.4. The Teipoka *me'ae*, Hatiheu Valley, Nukuhiva. The *me'ae* is situated at the end of a terraced ceremonial ground, on the edge of which is the illustrated petroglyph boulder.

Although it is difficult to distinguish between Marquesan *me'ae* and residential house platforms on the basis of masonry construction alone, *me'ae* are generally larger and more elaborately built than house platforms (Linton 1925, 34).

There is some evidence of a functional distinction between two types of *me'ae*, those that were reserved primarily for ceremonies related to the disposal of the dead, and those that were the scene of a wider range of ceremonies, but generally of lesser importance than the mortuary rites. Mortuary *me'ae* are nearly all located in secluded parts of upper valleys (Linton 1925, 33; Gracia 1843, 57–8), while public *me'ae* are usually found in the vicinity of residential areas, especially near the intersections of commonly travelled paths (Gracia 1843, 59). Missionary records list thirteen *me'ae* in Hatiheu. This site is most likely Me'ae Te Ipoka, dedicated to Tevanauaua, god who accords victory (CM Ms I, 14).

Von den Steinen (1928) visited Me'ae Te Ipoka in the late nineteenth century and identified the site as the traditional residence of the inspirational priest or *taua* of Hatiheu. Marquesan *taua* were distinguished from the rest of the

population by their perceived ability to communicate directly with the deities (*atua*), most of whom Marquesans considered to be the spirits of deceased *taua* and chiefs (*hakaiki*). The Marquesan term for deity, *atua*, was also applied to certain *taua* who achieved divine status during the course of their lives, but the number of *taua* who attained this level of importance was probably no more than one or two per island (Vincendon-Dumoulin 1843, 226). All other *taua* were elevated to deified status after death through a series of ceremonies highlighted by numerous human sacrifices. *Atua* were believed to exercise supernatural power over the elements, being able to provide rich harvests or make the land sterile, and to inflict sickness or death at will. Less powerful than the *atua* but closely linked with them, *taua* possessed the ability to determine the cause of calamities affecting the population and to foresee danger (Vincendon-Dumoulin 1843, 227). The spiritual link between *taua* and *atua* manifested itself in self-induced trances, during which the *taua* was possessed by the *atua* which he either trapped by catching it in his hands, or which entered directly into his body (Gracia 1843, 46). The *taua* spoke oracles during the trances, which always occurred



Fig. 9.5. The lower retaining wall of Teipoka *me'ae*. Marquesan *me'ae* are noted for their massiveness and the excellence of their construction. The wall height is 3.8 meters.

on the *me'ae*, transmitting information communicated to him by the *atua* in an unnatural, squeaky voice produced in the manner of a ventriloquist. Oracles spoken by the *taua* often called for human victims or offerings of food to be brought upon the *me'ae* in order to satisfy the wishes of the *atua*. Such commands were supported by the power of the *hakaiki*, who were considered to be direct descendants of certain *atua* and who in some cases were themselves also *taua* (Gracia 1843, 47).

Descriptions of *me'ae* by early nineteenth-century visitors to the Marquesas project vivid images of the sites and religious ceremonies performed at them. Stone and wooden anthropomorphic representations, some of which were more than two meters tall, seem to have been a nearly universal feature of mortuary *me'ae* on Nukuhiva (Stewart 1831, 290; Tautain 1897, 669); these also appeared, less commonly, on public *me'ae* (Linton 1925, 32). These images, known as *tiki*, were sculpted in a highly conventionalized style but appear to have represented various different *atua*, especially deified *hakaiki* and *taua* (Tautain 1897, 673, 677).

House structures with pointed roofs likened by early visitors to obelisks were also a characteristic feature of mortuary *me'ae* (Porter 1822, 110). These structures, known as *ha'e tua* (literally, pointed house), were presided over by the *taua* and were dedicated to the tribal tutelary gods who were often believed to inhabit them (Handy 1923, 49). The *ha'e tua* and tress in the vicinity of the *me'ae* were draped with streamers of white bark cloth, identifying the area as a *tapu* precinct (Porter 1822, 116). Porter's account of a visit to a *me'ae* includes the following description:

The obelisks [*ha'e tua*] are about thirty-five feet in height, and about the base of them were hung the heads of hogs and tortoises, as I was informed, as offerings to their gods. On the right of this grove, distant only a few paces, were four splendid war canoes, furnished with their outriggers, and decorated with ornaments of human hair, coral shells, etc., with an abundance of white streamers. Their heads were placed toward the mountain, and in the stern of each was a figure of a man with a paddle steering, in full dress, ornamented

with plumes, earrings made to represent those formed of whales' teeth, and every other ornament of the fashion of the country. One of the canoes was more splendid than the others, and was situated nearer the grove. I inquired who the dignified personage might be who was seated in her stern, and was informed that this was the priest who had been killed, not long since, by the Happahs. The stench here was intolerable from the number of offerings which had been made, but, attracted by curiosity, I went to examine the canoes more minutely, and found the bodies of two of the Typees, whom we had killed, in a bloated state, at the bottom of that of the priest, and many other human carcasses, with the flesh still on them, lying about the canoe. (Porter 1822, 110-11)

Porter's valuable description identifies the significance of the *me'ae* as related to the recent death of a priest, or *taua*. It is of particular interest to note that the 'tortoise' heads were hung about the base of the *ha'e tua* and the *me'ae*. In all likelihood, these were heads of the green turtle (*Chelonia mydas*). Although the hawksbill turtle (*Eretmochelys imbricata*) was valued as the source of tortoise shell used in the manufacture of ornaments, the green turtle appears to have been regarded with special religious significance. One indication of the high esteem accorded the green turtle is that after Christian influence in the Marquesas prevailed against the ceremonial use of human victims, the green turtle or *honu* was substituted in their place (Jardin 1862, 74). Further evidence of the religious and ceremonial value of turtles is given in a myth recorded by Handy (1930, 35). In the myth, two men engage in building a raised stone platform (*paepae*) to commemorate the death of a close relative. Upon nearing completion of the *paepae*, the men set out on a special fishing expedition to capture turtles for use in connection with ceremonies associated with final completion of the structure. When the *paepae* was finished and the ceremony involving the turtles had been enacted, the spirit of the honored relative, still lingering until that time about the earth, made its final passage to the afterworld.

The reference to turtles in connection with a memorial ceremony seems related to the Marquesan practice of holding celebrations to commemorate the death of an individual. Feasting was an important part of such occasions, as was the ritual offering of food to the *atua* believed to be responsible for helping the spirit of the deceased (Handy 1923, 217). According to Gracia (1843, 117), memorial ceremonies were held one lunar month after death and again after ten lunar months. Offerings were viewed as essential in ensuring a successful passage of the spirit to its final resting place in the afterworld. This is well illustrated by the response given to Porter in answer to his questions about why the dead enemy warriors had been placed in the canoe of a *taua* killed in recent hostilities with the neighboring valley. Porter was informed through his interpreter that the *taua* was on his way to the afterworld and that a 'crew' of ten enemy warriors

was needed in order to paddle his canoe there (1822, 111). Gracia (1843, 45) also noted that seven to ten human sacrifices generally were necessary in order to elevate the spirit of a *taua* to the status of *atua*. The description of the *taua*'s passage to the afterworld in terms of a canoe voyage is an appropriate metaphor because deification of the *taua* after death essentially involved a transition from earth to the afterworld, the antipodes of which were considered to be the dwelling place of the *atua*. Thus the turtle offerings made in connection with the memorial ceremony mentioned in the myth, like the human victims placed in the canoe of the *taua*, may be viewed as serving the purpose of effecting a successful transition, in the sense of actual physical displacement, from earth to the afterworld.

In addition to their value in connection with memorial ceremonies, turtles were also important in other religious rites. Catholic missionary records indicate that occasions on which human victims or food offerings were left on the *me'ae* included ceremonies designed to obtain victory in war (CM Ms. II, 42), to bring rain (CM Ms. II, 38), and to obtain help from the gods in avenging an enemy who for some reason was beyond the reach of the intended aggressor (CM Ms. II, 44). Certain species of the Marquesan plant and animal worlds were regarded as particularly suitable offerings to the gods and these were made *tapu*. Delmas' 1927 listing of *tapu* plants and animals for each valley on Nukuhiva demonstrates a high degree of inter-valley variability, reinforcing the conclusion that the imposition of a *tapu*, whether temporary or permanent, was within the power of an individual *taua* (Handy 1923, 259; Gracia 1843, 52).

The *tapu* on the turtle appears to have been one of the strongest and most culturally ingrained. In the eighteenth-century missionary record of William Crook (n.d., 55), and in Jardin's natural history of the Marquesas (1862, 74), the turtle is said to have been reserved for consumption by high status individuals. Another source states that turtles were 'dedicated to the gods' (CM Ms. I, 14). However, these general statements are insufficient to reveal the full extent to which Marquesan behavior toward a particular species was affected by its *tapu* status. Such information can be derived only from examination of specific cases in which actual behavior in connection with a *tapu* species was recorded. Although specific cases involving the turtle are absent in the ethnohistoric literature, valuable inferences may be drawn from examination of an event recorded by Gracia (1843, 53-4) involving a red pig, among the most *tapu* of all animals. Gracia, who had purchased the pig, was surprised at the rough manner in which his Marquesan helper proceeded to drive it to the house. Yet despite the youth's unrestrained abuse in delivering the pig, he objected fearfully to Gracia's suggestion that he kill it. After the pig had met its fate, the boy nonetheless consented to cook part of it for the missionaries, although he would not eat any of the meat himself, or even any of the other food cooked in the same pot. Instead, the Marquesan youth took his own separate portion of uncooked meat and kindled a

new fire to prepare his own meal, being careful to use different utensils than those that had been used to prepare the missionaries' food.

Several inferences emerge from Gracia's episode, regarding the cultural significance of Marquesan food *tapu*. First, the fact that a food was *tapu* did not necessarily prohibit all but high status individuals such as *taua*, *hakaiki*, or missionaries from eating of it. Rather, low status individuals, such as the youth in Gracia's account, were permitted to eat meat from a *tapu* animal provided that they partook of portions cooked and served separately from those portions prepared for the high status individuals. In this context, it is possible that the food remains of feasts held on the *me'ae* were suspended from the walls of the *ha'e tua* and hung from branches of the trees in the religious precinct because that food was *tapu* to all but the participants in the ceremony. Moreover, there is evidence that participants in such ceremonies were subject to the influence of the *tapu* only during the period of the ceremony (see Porter 1822, 115 for temporary *tapus* associated with particular ceremonies). Finally, although low status individuals apparently were restricted from killing a *tapu* animal, other behavior toward the living animals was less strictly controlled, as evidenced by the youth's rough treatment of the pig as he drove it to the mission.

Direct ethnohistoric evidence to test the validity of these inferences as they pertain to Marquesan behavior regarding turtles is available only with reference to fishing. Apparently, special ceremonies were held in connection with planning fishing expeditions to catch turtles for use in ceremonies, and the fishermen were *tapu* both during the ceremony and the ensuing fishing expedition. Porter witnessed a *me'ae* ceremony which he was informed was related to the success of the turtle hunt:

I have seen Gattanewa with all his sons, and many others sitting for hours together clapping their hands and singing before a number of little wooden gods laid out in small houses erected for the occasion, and ornamented with strips of cloth. They were such houses as a child would have made, of about two feet long and eighteen inches high, and no less than ten or twelve of them in a cluster, like a small village. By the side of these were several canoes, furnished with their paddles, seines, harpoons, and other fishing apparatus, and round the whole a line was drawn to show that the place was tabooed. Within this line was Gattanewa and others, like overgrown babies, singing and clapping their hands, sometimes laughing and talking, and appearing to give their ceremony no attention . . . I enquired the cause of this ceremony of Gattanewa; he told me he was going to catch tortoise for the gods, and that he should have to pray to them several days and nights for success, during which time he would be tabooed, and dare not enter a house frequented by women. (Porter 1822, 115)

Edward Roberts, an early nineteenth-century beachcomber, also referred to the *tapu* on men fishing for turtles, noting

that he and a *hakaiki* he accompanied were not allowed 'during the time of searching for turtle to go among females' (Denig 1974, 251).

Pan-Polynesian comparison

The demonstrable derivation of all Polynesian cultures from a common ancestral tradition makes the comparative approach a fruitful method of research in this area (see Green, this volume). Inter-archipelago comparison of the cultural significance of turtles in Polynesia demonstrates that the observed religious significance of turtles in the Marquesas reflects concepts originally rooted in Ancestral Polynesian culture. Comparative data can also serve as a basis for drawing inferences concerning aspects of Marquesan culture for which adequate documentation is lacking.

Turtles played a central role in certain ceremonies held at religious sites in the Tuamotu Islands of Eastern Polynesia. According to the Catholic missionary Montiton (1874, 378-9), who witnessed these ceremonies during the mid-nineteenth century, turtles were beheaded and disemboweled at the temple site (*marae*), then cooked in special ovens and eaten by the ceremonial priests and their assistants. After this first serving, the turtle meat was divided and distributed to other men of the community but apparently not to women or children. In the Central Polynesian island of Tongareva, the beachcomber Lamont participated in a *marae* ceremony that involved turtle feasting (Lamont 1867, 182-3). The turtle was beheaded and disemboweled on the *marae* and taken to the community meeting place where it was served to Lamont and three chiefs. Surrounded by a group of onlookers who complimented his generosity when he shared pieces of the meat with them, Lamont threw some of the meat to the wives of the chiefs, who, to his great surprise, recoiled in terror, shouting '*huie atua!*' (prohibited). Lamont noted that after the ceremony he was treated with increased respect in the community and accorded the highest ranking title, that of *ariki* (see Buck 1932, 91-2 for an analysis of Lamont's account). The practice of similar ceremonies involving turtle feasting in the Cooks and Society Islands is suggested by an observation in the missionary narrative of John Williams:

The turtle was considered by the Rarotongans and Tahitians as most sacred. A part of every one caught was offered to the gods, and the rest cooked with sacred fire, and partaken of by the king and principal chiefs only. (Williams 1838, 429)

The widespread Polynesian distribution of turtle ceremonies is further evidenced by ethnographic notes from Anuta collected by Kirch and Rosendahl (1973, 26) identifying a specialized *marae* (located in the immediate vicinity of the principal pre-Christian-era *marae*) as one where turtles and porpoises were cooked and eaten in religious ceremonies. A Rarotongan chief portrayed in the frontispiece of Williams' narrative had turtle motifs tattooed on his knees, although the rest of his tattoos were geometric motifs. Williams (1838, 463) identified the chief as Tepo and stated that the tattoos

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Stewart, C.S. 1826Narrative of a
residence in the
Sandwich Islandsduring the years
1823, 1824, 1825

London, H. J. Fisher & J. Theissert

were executed 'in consequence of the death of his ninth child'. Records of the cultural significance of turtles in other island groups are less specific and generally refer only to the *tapu* surrounding them that restricted their consumption by persons other than high status individuals. In addition to those noted for the Marquesas, tabus regarding the consumption of turtles are known from the Society Islands (Henry 1928, 381), the Tuamotus (Montiton 1874, 369), Mangareva (Buck 1938, 91), the Cook Islands (Williams 1838, 429; Lamont 1867, 182-3), Hawai'i (Stewart 1826, 365), Easter Island (Barthel 1978, 142), Samoa (Buck 1930, 522), the Tokelau Islands (MacGregor 1937, 100), Futuna (Burrows 1936, 103), and 'Uvea (Burrows 1937, 144). In Melanesia, restrictions on fishing for turtles and on eating them have been reported from the Lau Islands, Fiji (Thompson 1940, 137, 154) and the Loyalties (Ray 1917, 290; Guiart 1963, 285, 289).

Comparative research also reveals that archaeological associations between turtle petroglyphs and religiously significant sites exist in the Society Islands and in Easter Island, in addition to the Marquesas. In the Societies, associations between turtle petroglyphs and stone structures are of two types: (1) cases where turtle motifs are found engraved on stones used in the exterior wall construction of *marae* and raised platforms (*paepae*) known to have been elite residences; and (2) cases where turtle motifs are engraved on boulders situated near raised stone structures of religious significance. The first case is by far the most common.

Turtle motifs associated with *marae* in the Society Islands are engraved on quarried limestone slabs forming the facing wall of the *ahu*, the long narrow structure which was the focal point of *marae* ceremonies. Although Emory (1933) found turtle petroglyphs at only five of the 114 *marae* he recorded in the Leeward Islands, three of those *marae* (Manunu, Anini, and Tainuu) are among the largest in the archipelago. *Marae* Tainuu, at Tevaitoa, Raiatea, is the largest of all, being 162 feet long and 20 feet wide. Turtle motifs are engraved on two of the facing stones of *Marae* Tainuu (fig. 9.3, 1b, d, 1h-1) and on the basalt cornerstone of a nearby *paepae* (fig. 9.3, 1a) which Emory recorded as the residence of the chief of Tevaitoa (Emory 1933, 154). *Marae* Manunu and Anini on Huahine are of a distinct type; both sites have a smaller platform built on top of the *ahu*, a feature unknown from other *marae* (Emory 1933, 34). Two of the *marae* (Manunu and Rauhuru) with turtle petroglyphs are at Maeva, where the *marae* of all the principal families of Huahine Nui were clustered together in a group of twenty-five structures. There are two boulder sites, on Borabora and Maupiti, with impressive groups of turtle petroglyphs but apparently neither of these sites is associated with raised stone structures (Emory 1933, 173, 175). Drawings of these petroglyph groups and detailed information about the Leeward Islands *marae* are given in Emory (1933).

On Easter Island a turtle motif (fig. 9.3, 1d) is engraved on a slab of an important religious structure, the *ahu* Ihu Arero (Lavachery 1939, 35). Other motifs, including representations of 'birdmen', octopus, and possibly whales,

are associated with the turtle, but apparently this site is the only religious structure on Easter Island that is directly associated with animal motif petroglyphs (Lavachery 1939, 110).

Interpretation

Little is known regarding the motivations for executing petroglyphs in Polynesia, even in island groups such as the Societies, Marquesas, and Hawai'i, where petroglyph sites are relatively common. This gap in the ethnographic and archaeological record of Polynesia is especially striking in consideration of our clearer understanding of the motivations for other art forms such as tattooing, and the carving of stone monuments. Two problems in interpreting petroglyphs are: (1) iconographic significance can vary in both time and space; and (2) the motivation for executing a particular work, whether it be religious, social, or aesthetic, must be demonstrated if an attempt is made to distinguish between these often closely related sources of inspiration (Leroi-Gourhan 1975, 50). The first problem, variability of iconographic significance in time and space, raises the question of the extent to which ethnographic data from the European contact period accounts are relevant to the interpretation of petroglyphs which (except in rare cases involving European subject matter or direct association with datable cultural deposits) cannot yet be directly dated. One effective means of establishing the time depth of certain concepts characteristic of Polynesian cultures is to demonstrate, through inter-island group comparison, that the underlying themes can be traced back to the common ancestral cultural tradition. Concepts assignable to this ancestral tradition — such as the religious significance of turtles — can be used with confidence in proposing ethnologically based interpretations of petroglyphs. It is likely, however, that even as there is variability among Polynesian concepts concerning the cultural significance of turtles (presumably resulting from divergence and differentiation in isolated island groups), the iconographic significance of turtle petroglyphs probably also developed differently in each island group. More complete documentation of petroglyph sites in the Marquesas and other archipelagoes will provide an increasingly firmer basis for defining the nature of this variability in terms of archaeological context.

The second problem, that of distinguishing between religious, social, and aesthetic sources of inspiration, is particularly complex because such sources of inspiration were so closely linked in Polynesian cultures. Even the first-hand observers whose accounts form the basis of reconstructions of the traditional cultures were unclear about such distinctions. For example, Gracia (1843, 55) states that Marquesan men met regularly at public *me'ae* on occasions which involved both religious ceremonies and feasting, and that even the feasting seems to have been regarded as a kind of religious act, because it included putting food to the mouths of the *tiki* and attaching uneaten remains of the feast to the walls of the thatched house built on the *me'ae*. There were no clearly defined boundaries between the realms of religious,

social, and aesthetic concerns. Rather, Marquesan culture was characterized by the intertwining of these aspects of culture, and it is by keeping this consideration in the forefront that an attempt at interpretation of the Hatiheu turtle petroglyphs can best be made.

The significance of turtles in religious ceremonies involving treatment of the dead, as suggested by the myth recorded by Handy and by Porter's description of a mortuary *me'ae*, indicates a connection between turtles and the passage to the afterworld. Marquesans believed both in an underworld (*Hawaiki*) and in the heavens (*aki*). Dordillon (1931, 156) lists three stratified levels of *Hawaiki*: (1) *Hawaiki ta uka* (uppermost); (2) *Hawaiki vaveka* (middle); and (3) *Hawaiki ta ao* (lowermost). The spirits of commoners were believed to have little chance of attaining the lowest, most desirable level of *Hawaiki*. If the death of a commoner was not honored by the proper mortuary rites it was believed that the spirit could not leave earth but would remain to haunt the living (Delmas 1927, 52-3). Entry to the afterworld could also be made through the heavens, and it is interesting to note that the heavens were believed to be linked with the underworld, so that the highest level of *aki* corresponded to the lowest level of *Hawaiki* (Delmas 1927).

The turtle may have been associated with *Hawaiki* because of its ability to dive to great ocean depths. More significant, however, is the turtle's ability to pass from the depths of the ocean to the land, where it lays its eggs. In this metaphorical sense, turtles are able to cross the boundary between two separate worlds. The Marquesan *taua* was similarly held in awe because of his ability to communicate between the world of mortals and that of the deities. I suggest that the religious significance of turtles in the Marquesas, and in Polynesian cultures generally, is related to a symbolic association between turtles and the transcendence of boundaries between worlds. That Polynesians did, in fact, view turtles in terms of this ability to cross these boundaries is illustrated by certain Tuamotuan chants associated with turtle ceremonies. One such chant, recited as the turtle was ritually killed, runs as follows:

Ka ma te po, ka ma te ao,
Koia Tu, koia Ragi;
Mata-iki, Mata-ho.
Tagi i te po, tagi i te ao,
Hura tana pu ha i katau e,
Kia mate!

The nether world, the upper
world is freed of restrictions.
There is Tu, there is Ragi;
Mata-iki, Mata-ho.
Sounding in the nether world,
sounding in the upper world.

Their trumpet is heard on the right,
Heralding the death of the victim.

(Emory 1947, 75)

The contrasts of above and below, and of inland and seaward, are common themes in other chants recited during turtle ceremonies (Emory 1947, 75, 78-80). Turtles, we surmise, then, were symbolically associated with *taua* because, like their human counterparts, they could transcend boundaries between worlds. Likewise, as a symbol of the transcendence between worlds, turtles were viewed as particularly appropriate for use in connection with mortuary and memorial ceremonies, the purpose of which was to assist the successful passage of a spirit from earth through the stratified layers of the afterworld to its final destination.

This interpretation of Marquesan turtle petroglyphs found in Hatiheu Valley represents an effort to incorporate the analysis of iconographic materials into the study of Polynesian prehistory. The approach employed involves investigation into the possible meaning of petroglyphs through reconstruction of their original context and the proposition of hypotheses based upon ethnological records. This method of studying iconographic themes within a cultural context could also be applied in research on other petroglyph motifs. Indeed, the range of its potential application extends to the analysis of all iconographic themes and materials for which there are relevant ethnological records. 'Recovery of mind', or the reconstruction of prehistoric thought patterns, should now be viewed not only as an attainable goal but as a promising avenue for future research.³

Notes

- 1 Suggs (1961, 145, 147) mentions having found turtle petroglyphs on Nukuhiva, at Ha'atuatua and in Hatiheu, but the specific motifs were not recorded.
- 2 Different terms, *me'ae* and *ahu*, were used with the same significance in various parts of the Marquesas. Following the precedent set by Linton (1925, 31), and in order to simplify matters, the term *me'ae* is used as a general designation for all such sites in this paper.
- 3 My opportunity to visit the Marquesas Islands was made possible by a fellowship from the Thomas J. Watson Foundation. Work on the paper began at Yale University under the supervision of Richard Pearson and I thank him for his encouragement, as well as for having invited me to present the results of my research at the XIth International Congress of Anthropological and Ethnological Sciences. I am also grateful for valuable comments and criticism that I have received from Patrick Kirch, Douglas Oliver, Tom Dye, Patrick McCoy, Paul Cleghorn, and Robert Suggs. Finally, I am indebted to Monseigneur Alain Le Cleach and Severin 'Matu' Katupa of Nukuhiva for having shared their knowledge of the Hatiheu Valley petroglyph boulder with me, and to David Kiphuth of the Yale Peabody Museum for having made the drawing of it from my photographs.

« FONDATION HIBISCUS »

(Association Régie Loi 1901)
Pour La Protection Des Tortues Marines
bp184 HAAMENE
Ile de TAHAA
POLYNESIE FRANCAISE (French Polynesia)
Tel : (689) 65.61.06
Fax : (689) 65.65.65



Mom femp H. SALAZAR
leader Marine TORTUES
HAWAII

Bon jour femp.

ci joint le dernier état
jan 1996 des Tortues remise en liberté
la note association

Schickels
l.o. l.o. l.o.

FAX

ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF EPT/JPL/bb

9/5/95
I1-I100
&

I 810 - I 999
sent

Taravao, le 17/07/1995

V.2

Jean-Pierre

TELECOPIE

FROM : Jean-Pierre LANDRET
TO FAX MESSAGE N° : 001 (808) 943 12 90
COMPAGNIE : NATIONAL MARINE FISHERIES
ATTENTION : M. George BALAZS
NB PAGES : 4
REF :

Dear George

- Mr Gabriel TETIARANI, is planning to go on an expedition on ATAFAVA in November 1995, in order to make the inhabitants of the atoll sensitive to the Turtle Conservation.
- He wants to tag adult Turtles which will be laying down.
- I suggested him to tag on one front flipper with a big tag (45 mm) and on one rear flipper with smaller tag, as we have done in October 1994 at Lully atoll.
- I don't know if you can provide big tags like from PROE ones we used in 1994. It is truly necessary to use big tags on front flippers?

- I will can give to mister TETIARANI some PROE tags, because I still have 350 of them. But, I still have only about a hundred of your tags and it is not enough.

! → I think there will be no more than 200/300 Turtles on the atoll. So can you send us 200/300 Tags and 2/3 applications. I prefer you send them to me, and after I will come to an agreement with Mr TETIARANI.

- I wish that all is going well for you

TRANSMITTAL SHEET



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

FAXED
7/18/95 2:00

0825
DME

TELEFAX FOR: Jean-Pierre Landret

DATE: 18 July 95

FROM: George Balazs

TELEPHONE EXT: _____

NUMBER OF SHEETS TRANSMITTED (including this page) 2

MESSAGE:

Dear Jean-Pierre: Thank you for your fast response. I enjoy working with you, you are a good colleague. Yes, I will send you 300 more tags and 3 applicators. Yes, if you wish, the small tags can be also used on the front flippers. But it would be good to use the Proct tags, your choice. Will you go to MATANA? where is Matana? I am surprised to hear that so many turtles may nest there (200-300). That is good news.

What are the tag numbers of the 100 tags of mine you still have? I would like to note that in my records. I can send the tags and applicators on Hawaiian Airlines cargo. However, I apologize that I must request that you pay for the shipping upon arrival. Is that acceptable?

I have enclosed (faxed) the satellite tracking of a nesting green turtle from Rose Hall, Am. Samoa. Unfortunately, the battery went dead at the endpoint, maybe in Raiatea? or? BEST,
George

1995- THE YEAR OF THE SEA TURTLE IN THE PACIFIC
A SPREP Regional Marine Turtle Conservation Programme initiative



ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF EPT/JPL/bb

Taravao, le 29/08/1995

TELECOPIE

FROM : Jean-Pierre LANDRET
TO FAX MESSAGE N° : 001 (808) 943 12 90
COMPAGNIE : NATIONAL MARINE FISHERIES
ATTENTION : M. George BALAZS
NB PAGES : 1
REF :

Dear George,
Thank you for your FAX of this day.
The people will be leaving for HATTAIRA on 06/11/95
(06 November) for a week.
I think the best is you send us the tags
in half October.
Thank you for your collaboration and have a
good stay in French Frigate Shoals.
best regards

Jean-Pierre

HITI TAU

Unité de Liaison Nationale
réseau du Pacific Island of Non-Government Organization
en Polynésie Française

Siège social : Faaone, P.K 45,200 Tahiti, Polynésie Française
Adresse Postale : B.P : 4611 Papeete, Tahiti
Tél : (689) 521371 Fax : (689) 572880

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(Tahiti)

Te Niu Papa Maohi

Ligue internationale
des femmes pour la liberté
et la paix

Papeneo Nui

Ui api no Atuona

Haravera

Gabriel TETIARAHI
Co-responsable du programme Tortues
Hiti Tau
B.P 4611 Papeete
Tél : (689) 52 13 71
Fax : (689) 57 28 80



Objet : bague de tortues

Je vous remercie de votre courrier auquel je réponds tardivement et vous prie de m'en excuser. Nous avons eu votre adresse par Mr Jean Pierre Landret que vous connaissez bien.

Dans le cadre de l'année internationale de la tortue, notre ONG a décidé de mener un programme de sensibilisation sur la protection des tortues marines à Mataiva avec la collaboration de la population locale.

C'est dans ce contexte que nous comptons réaliser une campagne de marquage de tortues en novembre 1995. Mr JP Landret nous a fortement conseillé d'utiliser 2 sortes de bagues :

- les bagues de 48 mm à placer à l'arrière de la patte avant de la tortue
- la bague de 28 mm à placer à la patte arrière.

Au sujet du nombre de bagues, il nous a recommandé d'en demander 200 de chaque et 4 à 5 applicators correspondant aux 2 sortes de bagues. Ceci, afin de pouvoir en laisser à la population pour qu'elle puisse continuer à bague et suivre les remontées de tortues après notre mission de novembre.

Je sollicite donc votre avis aujourd'hui. Nous avons bien noté que les bagues distribuées par vos soins étaient gratuites. Cependant et si le nombre demandé s'avérait trop important, nous sommes prêts à vous en financer une partie.

Nous aurons peut-être l'occasion de nous rencontrer.

Merci de nous répondre.

Papeete, le 1er juillet 1995

Georges Balaz's
National marine
Fisheries service
Southwest fisheries
Science Center
Honolulu Laboratory
2570 Dole street
Honolulu Hawaii
96 822 - 2396



Gabriel TETIARAHI

TRANSMITTAL SHEET



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

FAXED
7/17/95 12:07 PM
DME

TELEFAX FOR: Jean-Pierre Landoet
EVAMU TETIARATI
FROM: George Balazs

DATE: 16 July 95
808-
TELEPHONE EXT: 943-1240

NUMBER OF SHEETS TRANSMITTED (including this page) TWO (2)

MESSAGE: Dear Jean-Pierre: I am writing to request your assistance. I have a difficult time reading French. I do not exactly understand what is being said in the fax I received from Gabriel Tetiarati. Can you help? I believe they would like to receive tags and pliers. They mention your name. Do you have any tags left from the ones I sent you? If so, what are the numbers of the tags you still have?

I look forward to hearing from you. I hope that all is going well. Please give my best regards to Philippe.

Alotta,
FAX 808-943-1290



FONDATION "HIBISCUS"

Association Régie Loi 1901)
 pour la protection des Tortues
 BP 184 HAAMENE
 Ile de TAHAA
 Polynésie Française
 (French Polynesia)
 Tél. Fax 65.65.65
 Tél. 656106



Monsieur GEORGE H
 BALAZS

SCIENCES CENTER LABORATORY
 HONOLULU
 HAWAII

808-943 1290

Cher Monsieur,

Nous avons sauvé, et relâché, entre le 01.07.1996
 181 TORTUES, EN INTERVENANT, POUR QUE LES PÊCHEURS, LES AYANT
 TROUVÉ DANS LES PIÈCES À PÔLONS, NE LES MANGENT PAS, OU NE LE
 VENDENT PAS, POUR ÊTRE MANGÉES.

Nous souhaitons, que vous puissiez, nous adresser PAR AVI
 UN APPAREIL À BLAGUER LES TORTUES, AVEC 200 BAGUES, PORTANT
 LES RÉFÉRENCES DE L'UNIVERSITÉ DE HAWAII, VOUS PERMETTANT D'
 SUIVRE, CES TORTUES, EN CAS DE RECAPTURE,

DANS LA MESURE, OU IL FAUDRAIT VOUS PAYER QUELQUE
 CHOSE, ALOES ADRESSEZ NOUS AUSSI LA FACTURE.

IL S'AGIT DE L'APPAREIL, ET DES BAGUES 28MM (REF. 681)
 PORTANT LA MENTION "WRITE HMB, UNIVERSITY HAWAII
 96744."

J'é vous serais reconnaissant Monsieur BALAZS
 de bien vouloir me répondre PAR FAX retour

Avec nos remerciements

LEO MOROU

- ci APRÈS . 1) MODÈLE DE L'APPAREIL
 2) RÉFÉRENCE DES BAGUES

George H. BALAZS



U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
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(808) 943-1230

Extrait d'un rapport de Timian

00-A-

Les marques utilisées ont été du type "Inconel Tags" fabriquées par the "National Band and Tag Co" (Kentucky, USA). Deux sortes de marques ont été employées :

- l'une, d'une longueur de 28 mm (référence 681), portant la mention "write HIMB UNIVERSITY HAWAII 96744" sur une face, ainsi qu'une lettre (X ou S) suivie d'un nombre, sur l'autre face.
- l'autre d'une longueur de 45 mm, portant sur une face la mention "RETURN SPC/SPREP BP D5 NOUMEA CEDEX-NEW CALEDONIA" et sur l'autre, soit le sigle RMTP, soit la lettre R, suivis d'un nombre.

Fournis par le PROE (Programme Régional Occéanien pour l'Environnement) mais fabriqués par la même Société.

DIRECTIONS

FOR INSERTING TAG IN SEALER

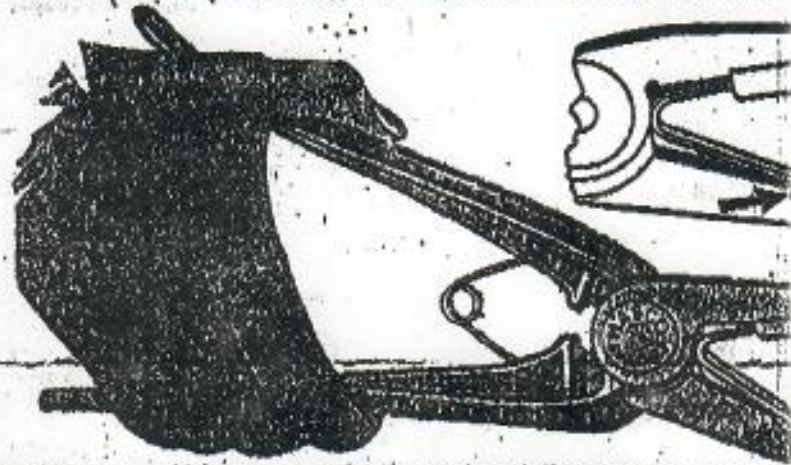
Hold Sealer as shown. Pull tag straight back into jaws of Sealer until it clicks into position as pictured in cut, otherwise it will not seal properly.

IMPORTANT

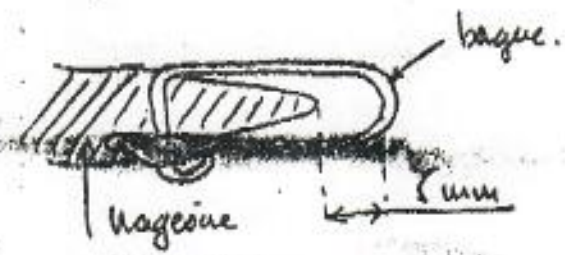
For proper Tamper-Proof Seal, Tag point must penetrate an object: ear, flipper, wing, or simulated material. Tags are designed to penetrate and seal; Tags might not seal properly without penetration.

Manufactured by

NATIONAL BAND & TAG CO.
NEWPORT, KY, U.S.A. 41072



Fabrique aut



HITI TAU

Unité de Liaison Nationale
réseau du Pacific Island of Non-Government Organization
en Polynésie Française

Siège social : Faaone, P.K 45.200 Tahiti, Polynésie Française
Adresse Postale : B.P : 4611 Papeete, Tahiti
Tél : (689) 521371 Fax : (689) 572880

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(Tahiti)

Te Niu Papa Maohi

Ligue internationale
des femmes pour la liberté
et la paix

Papenoo Nui

Ui api no Atuana

Haravera

...

Gabriel TETIARAHI
Co-responsable du programme Tortues
Hiti Tau
B.P 4611 Papeete
Tel : (689) 52 13 71
Fax (689) 57 28 80

Papeete, le 19 mai 1995


G.H Balazs
NMFS, 2570 Dole Street
Honolulu
Hawaii 96822-2396
Fax : (808)- 943-1290

Dear sir,

We would like to receive more information about the availability of tags from the Sea Turtle Tag center of the Pacific.

Would you please give us the prices of your tags ?

Yours sincerely,


Gabriel TETIARAHI



U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2386
(808)943-1221 • Fax: (808)943-1290

March 28, 1995

F/SWC2:ghb

Mr. Richard Namel
Agriculture Department
P.M.B. OHO
Tagabe
Vila, Vanuatu
South Pacific

Dear Mr. Namel:

Thank you very much for your recent letter reporting the capture of a tagged sea turtle (S111-S114) on 10 February 1995 at the island of Ancityum in Vanuatu. As with the tag resighting you relayed to us last year, we are most appreciative to receive this valuable information. I understand from your letter that Analgauhat villagers captured S111 while she was sleeping at night underwater with other smaller turtles.

Turtle S111, an adult female green turtle (Chelonia mydas), was originally tagged at Scilly Atoll, northwest of Tahiti in French Polynesia, on 22 October 1991. The turtle was laying eggs on the uninhabited islet of Motu Honu within the atoll. At that time, turtle S111 measured 106 cm in curved length along the back of her upper shell. Your report represents the first time this turtle has been resighted since she was tagged 4.5 years ago.

As we have known for some time, Scilly Atoll is a very important nesting site for green turtles living at foraging sites (such as Ancityum) throughout the entire South Pacific region. Unfortunately, the number of turtles nesting each year at Scilly has declined considerably over the past 50 years. The knowledge that there are now fewer sea turtles is the major reason that SPREP (South Pacific Regional Environment Programme) has declared 1995 as the "Year of the Sea Turtle in the Pacific." I have enclosed some literature describing this educational and public awareness campaign. Perhaps there are some activities mentioned that you may want to undertake in your own area. Please feel free to contact SPREP (Box 240, Apia, Western Samoa) for further assistance. I am sure they will be pleased to help you. SPREP will also be sending you another t-shirt to thank you for telling us about tagged turtle S111.

A video about the problems of conserving sea turtles in the Pacific is being distributed by SPREP, as part of their Year of the Sea Turtle campaign. In the video there are scenes taken on Motu Honu on 21 October 1991 showing turtle S111 crawling back to the water after laying eggs. You can obtain a copy of this excellent video by contacting SPREP.



Again, thank you for taking the time to write to me. I look forward to hearing from you again when more information becomes available.

Sincerely,

George H. Balazs
Zoologist and Leader,
Marine Turtle Research Program

cc
S. Miller, SPREP
P. Siu/J.-P. Landret, Tahiti
C. Limpus
H. Anderson

NO

DATE

RICHARD NAMEL
Agriculture Department
P.M.B. 040
Tagabe
Vila, VANUATU
S.W. Pacific.

14th March, 1995.

George H. Balazs
National Marine Fisheries Service
South West Fisheries Science Centre
Honolulu Laboratory.
Hawaii.

Dear Sir,

TAGGED
10/22/91 C-106 x 94
MOTU HONOLULU,
SCULLY

Re: Captured Tagged Turtle No. S111-S114.

I would like to let you know that one of your turtles NO. S111-S114 was captured by three fishermen from Anagehat village, Aneityum Island on Friday 10/2/95. It was a female turtle captured sleeping among other smaller turtles at night. Other sources said two other turtles were captured few years earlier on this island. One had the name "Sydney Australia" written on it and the other with the address of Tahiti written on it.

For more information, just contact me at the above address.

Thank you.

Regards;
R



GEORGE H. BALAZS
NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST FISHERIES SCIENCE CENTRE
HONOLULU LABORATORY
2570 DOLE STREET
HONOLULU, HAWAII 96822-2396



NO :

DATE :

Agriculture Department

PMB 040

Tagabe

Vila, VANUATU.

S. W. PACIFIC.

Georg H. BALAZS

National Marine Fisheries Service

Southwest Fisheries ^{Science} Centre

Honolulu Laboratory

2570 Pde Street

Honolulu, Hawaii 96822-2396.

Dear Mr BALAZS,

Re: Found Turtle.

This is to let you know that one of your turtles was captured on the island of Ancityum by three fishermen from Analgauhat village on one Friday - this might be Friday 10th or 17th February 1995. Numbers on its tags were, S111 and S112 on the front flaps and S113 and S114 on the rear flaps. The exact date ^{was not} clear but I'll try my best to find it out.

write to the above address for more information if required.

Thank you.

P. ...

To:

George H. BALAZS
National Marine Fisheries Service
Southwest Fisheries Science Centre
Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2596



NO
DATE RICHARD NAMEL
Agriculture Department
P.M. Box 040
Tagabe
Vila, VANUATU
S.W. Pacific.

14th March, 1995

George H. Balazs
National Marine Fisheries Service
South West Fisheries Science Centre
Honolulu Laboratory.
Hawaii.

AXEL video -
IN SPEED
VIDEO

Dear Sir,

TAGGED 10/22/91 C-106 x 94

MOTU HOND,

Scilly 10 Feb 95

Re: Captured Tagged Turtle No. S111-S114.

I would like to let you know that one of your turtles
) NO. S111-S114 was captured by three fishermen from
Anagauhat Village, Aniityum Island on Friday (10/2/95)
It was a female turtle captured sleeping among
other smaller turtles at night. Other sources said
two other turtles were captured few years
earlier on this island. One had the name "Sydney
Australia" written on it and the other with the
address of Tahiti written on it.

For more information, just contact me at the
above address.

Thank you.

Regards:

Limps Savic
Noel

*Juvenile
relayed from Seilly 1991*

*This letter received
1/8/95 - POST MARKED
1/95 from LISMORE
AUSTRALIA*

re: TURTLE TAGS

- 1) Tag Nos
 - i) RMTP 483
 - ii) X-669

- 2)
 - i) The turtle was caught on Thursday 22/10/92 at about 2000Hrs.
 - ii) The turtle was caught by hand when it was trapped in a crevice.
 - iii) Cakau Sasi approximately Lat: 170° 25' Log: 177° 35'
 - iv) Turtle will be eaten by the family members.

- 3) The turtle was caught by Mosese Sitivia of Sasa village, Ba

POSTAL ADDRESS: Mosese Sitivia
c/- Fisheries Department
Box 194
BA
Fiji Island.

JS



JAGS



LISMORE

GEORGE BALAZS
N.M.F.S.
2570 DOLE ST
HONOLULU, HI 96822-2396
USA

1-60





U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

January 17, 1995 F/SWC2:ghb

Mr. Simon Marsters
Palmerston Island
Cook Islands
South Pacific

Dear Mr. Marsters:

Thank you for your letter dated 10/24/94 that arrived here only last week reporting the resighting of tagged turtle P-841 on 10/14/94 outside the reef at Palmerston. I appreciate your taking the time to report this important information.

The turtle (a green turtle, Chelonia mydas) that you captured, and later let go, was originally tagged and released on 6/21/93 at Scilly Atoll, north of Bora Bora in French Polynesia. The turtle had been raised in captivity from a hatchling prior to its release 16 months before you saw it. When set free it weighed 16.2 kg and measured 52 cm (about 21 inches) in carapace length. The turtle was part of a captive-rearing program conducted by Mr. Philippe Siu and Mr. Jean-Pierre Landret of the Tahitian governmental agency, EVAAM. That program has now been terminated. By copy of this letter, I am notify EVAAM about your resighting of this turtle, as well as officials at the Regional Marine Turtle Conservation Program of SPREP based in Apia, Western Samoa.


I would be interested in hearing from you again with some additional information about turtle P-841. Specifically, it would be valuable to know 1) how exactly you captured the turtle; 2) Whether or not the turtle was "tame" like a captive turtle; 3) If other turtles of this same approximate size are ever seen outside the reef where it was found; 4) the size of the turtle, if you took any sort of measurement; and 5) if you, or anyone else, has ever captured any other tagged turtle at Palmerston.

Thank you again for your cooperation. I have enclosed some literature about sea turtles which you may find interesting.



Also, later on the SPREP program will send you a t-shirt with sea turtle design as a token of appreciation for reporting the tagged turtle.

Sincerely,



George H. Balazs
Zoologist and Leader,
Marine Turtle Research Program

cc
Sue Miller, SPREP
Philippine Siu and J.-P. Landret, EVAAM
Colin Limpus, Queensland Dept. Environment & Heritage

To:

WRITE HIMB
UNIVERSITY
HAWAII 96744



FROM: SIMON MARSTERS
PALMERSTON ISLAND
COOK ISLANDS.
24.10.94.

Silly release
6/21/93 P-841
16.24 kg
C 52 x 50 cm

Dear Sir/Madam or Who it may concern,

Greetings.

I wish to inform you that I've found the turtle with your silver tag: WRITE HIMB

UNIVERSITY

HAWAII 96744

At the back of the tag: P-841 engraved.

I found the turtle on the 17th of September 1994 just outside the reef on Palmerston Atoll in the Cook Islands. I kept it for awhile and decided to release it. For your information, I've released the turtle with my silver tag, on the 14th of October 1994.

I wish to inform you that I still have the silver tag and if you wish to have the tag send back to you, please inform me by mail.

I will be delighted to receive a reply from you.

Thank You
Yours faithfully

SIMON MARSTERS.

AIR MAIL



To:

HIMB
UNIVERSITY
HAWAII 96744
U.S.A.

SENDER'S ADDRESS:

Mr. Simon Marsters.
Palmerston Island.
COOK ISLANDS.
South Pacific.

The House

VI VI VI VI



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

TELEFAX FOR: SHIGEAKI SONE

DATE: 11 AUGUST 94

FROM: GEORGE BALAZS

FAX 808-943-1290
TELEPHONE EXT: _____

NUMBER OF SHEETS TRANSMITTED (including this page) ONE

MESSAGE:

Dear Mr. SHIGEAKI SONE:

Thank you very much for your fax. It was good to hear from you again! The turtle 5768 was tagged and released on 23 JUNE 1993 at Scilly Atoll, French Polynesia. It had been raised in captivity and then released. Perhaps the bites on the hind flippers are from other turtles biting it in captivity. Please, could you also take the carapace measurements "over the curve" using a flexible tape. I would also appreciate receiving those measurements.

I have notified Jean-Pierre Fardet of EVHAM in Tahiti and he may also be contacting you. If the turtle died, I hope you can identify the stomach contents to see what it had been eating.

Best regards,
George Balazs



ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF. : 139 /EPT/JPL/bb

Taravao, le 04 Octobre 1994

TELECOPIE

FROM : **Jean-Pierre LANDRET**
TO FAX MESSAGE N° : **00 1 (808) 943 12 90**
COMPAGNIE : **NATIONAL MARINE FISHERIES**
ATTENTION : **M. George BALAZS**
NB PAGES : **4**
REF :

Dear Georges,

I apologize to answer so late to your letter from August the 10/94. But I was in holydays from July the 03/94 to September the 27/94.

I enclose you a copy of the letter I send this day to Mr. Shigeaki Sone ; and the last Balance-sheet of the recoveries. I will say to Philippe he gives you somme news from him.

Our turtle program is stopped. We haven't no more supplies. PAPEARI station is closed.

The last 50 turtles who are in captivity in a concrete pound at the hatchery of TARAVAO will be released in the wild, or I'd prefer in plastic netting enclosures in TETIAROA Atoll, in order to follow there growth and to know the first maturity age.

Sincerely yours,



J.P. LANDRET

TABLEAU N° 1 MARQUAGES - RECAPTURES D'ADULTES

RECAPTURES				MARQUAGES / RELACHERS							
DATE	N°	LIEU	DUREE (Mois)	DISTANCE (Km)	DATE	LIEU	Sexe	AGE (Mois)	L.C (cm)	I.C (cm)	Obser.
- /11/91	S 130/131	SCILLY	1	80	19/10/91	Bellingshausen	F	-	98	91	-
23/03/92	S 18/19	FIDJI (Toberu)	5,5	2800	18/10/92	SCILLY	F	-	101	91	-
- /01/93	R 1222	RANGI.(Avatoru)	2,5	770	29/10/92	SCILLY	F	-	100	88	(1)
09/10/93	S 23/24	FIDJI (Savu-Savu)	24	2900	18/10/91	SCILLY	F	-	103	91	(2)
04/04/94	S 197/198	Iles des Pins (N.C)	27	4300	Oct-Dec/91	Bellingshausen	F	-	101	97	(3)
27/04/94	S 318-319	BALABIO (N.C/Nord)	30		28/10/91	SCILLY	F	-	99	96	-

OBSERVATIONS

- (1) Consommée sur place.
- (2) 121 kg, vendue à un restaurant.
- (3) Consommée sur place (Baie de UPI).

**TABLEAU N° 2 RECAPTURES DE TORTUES D'ELEVAGE RELACHEES
A SCILLY**

RECAPTURES				MARQUAGES / RELACHEES				Obser.		
DATE	N°	LIEU	DUREE (Mois)	DISTANCE (Km)	Marquage DATE	Age (M)	L.C (cm)		Relacher DATE	Age (M)
-	RMP/483	FIDJI	-	3000	15/10/91	-	51	15/10/91	-	(8)
24/01/93	X 845	MOOREA	4,5	520	18/09/92	21	47	18/10/92	22	(1)
14/03/93	X 723	Port-Moresby (PNG)	5	6500	"	"	42,5	"	"	(2)
02/09/93	X 735	FIDJI (Baie de BA)	12	3100	"	"	47	"	"	-
09/11/93	X 610	RAIATEA (Miri-Miri)	13	350	"	"	41	"	"	(3)
- /01/94	X 720	TAHITI/Ouest (PK 25)	4	560	22/06/93	18,5	39	01/10/93	22,5	(4)
29/03/94	X 642	TAHITI (Papeete)	15,5	560	18/09/92	20,5	48,5	18/10/92	21,5	(5)
29/06/94	X 743	MOOREA (Haapiti)	19	520	18/09/92	21	45	18/10/92	22	(6)
09/08/94	S 768	TONGATAPU	11		26/06/93	18	43,5	01/10/93	21	(9)
30/08/94	S 759	MOOREA (Haapiti)	11	520	26/06/93	28,5	51,5	01/10/93	32	(7)

OBSERVATIONS

- * Age en mois à partir de l'éclosion.
- (1) Poids approximatif : 11 kg - (11,24 kg le jour du marquage) - L.C = 47,5 - I.C = 43. Parfait état, mais fléchée à 1 nageoire antérieure. Remise en liberté avec une 2ème bague de n° S 480, le 27/01/93.
- (2) Prise au filet, puis remise en liberté ? A parcouru en moyenne 43 km/jour.
- (3) Sexe mâle d'après le pêcheur. En forme, bien que présentant une ancienne trace de flèche sur la carapace. Remise en liberté. Estimée à 17 kg, soit une augmentation de poids de près de 9 kg. Allongement de la carapace de 10 cm.
- (4) Pêchée au fusil et consommée.
- (5) Dormait au large à 10 miles de la côte ; bien en forme. Une autre a été vue à proximité avec une bague.
- (6) Remise en liberté (pêcheur MOUA Emmanuel (56.23.87)/MANCHON (56.25.77)). Tuée par Monsieur Louis TAMA (Baie de Matavai) à TAHITI le 18/08/94.
- (7) 18,2 kg le jour du marquage. 22 kg et LC = 59 cm. I.C = 57,5 cm lors de la recapture à l'Hôtel MOOREA BEACH CLUB, puis transférée au Labo de BERKELEY et à l'EPT, car ne semblait pas en forme (pb de nourriture à l'Hôtel ?).
- (8) Tortue élevée par René TAPUTU. "ISMAEL".
- (9) Le 09/08/94 : LC = 48,2 cm, I.C = 41,2 cm, P = 11,7 kg (10,5 kg le 26/06/93).

ECLOSERIE POLYVALENTE
DE TARAVAO

E.V.A.A.M.

B.P. 7031

TARAVAO - TAHITI

Télécopie : (689) 57.70.56

N/REF. : 140 /EPT/JPL/bb

Taravao, le 5 Octobre 1994

TELECOPIE

FROM : **Jean-Pierre LANDRET**

TO FAX MESSAGE N° : **676 23891**

COMPAGNIE : Japan International Cooperation Agency - **KINGDOM OF TONGA**

ATTENTION : **M.Shigeaoki Sone**

NB PAGES : **1**

REF :

Dear Sir,

I write to you to supply additional informations about the young turtle S-768.

She comes from eggs taken at SCILLY atoll (West of the "Society archipelago") in October 1991 and hatch in December 1991 in TAHITI (PAPEARI Station).

The young turtles were reared with special floating artificial food in plastic netting enclosures in the lagoon.

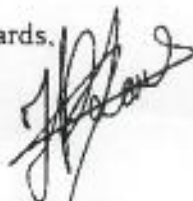
Turtle S-768 was tagged on 26 June 1993 (18 months old-SCL : 43.5 cm - SCW : 40 cm - weight : 10.54 kg) and released at SCILLY atoll on 01 October 1993 (21 months old).

We have been worked on the turtle program since 1989 (growing, public awareness, repopulation by head starting...).

Up to October 1993 we released about 700 turtles from 9 months to 5 years old and tagged 252 adults femelles.

Unfortunately, we haven't no more supplies and are constrained to stop the program.

Best regards,



J.P. LANDRET

copy to Jean Pierre

AQUACULTURE RESEARCH AND DEVELOPMENT PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(J I C A)

C/O JICA FISHERIES PROJECT
P.O. BOX 2480 NUKU'ALOFA,
KINGDOM OF TONGA

TEL/FAX: (676) 23891
Ministry of Fisheries

FACSIMILE TRANSMISSION

10 August 1994

Mr. George Balazs
Leader, Marine Turtle Research Programme
National Marine Fisheries Service
Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2396

Released Seilly
Captured
Reared

6/23/93
10.54 kg
43.5 x 40

Dear Sir,

I would like to inform you recapture of the tagged turtle in Tonga. Mr. Mata Fonu'a Langi who is an employee of Ministry of Fisheries found a tagged turtle in his relative's house on 9 August 1994. Then, the turtle was brought to the land culture tank at Sopa Mariculture Centre on the same day. Now, the turtle is still kept here but she looks too weak to survive. Recapture data is shown as follows.

Species : Chelonia mydas
Tag # : S 768, WRITE HIMB, UNIVERSITY HAWAII 96744
Date found : 26 July 1994
Location : Sopa, Northern coast of Tongatapu island
Condition : The animal was alive but washed on the beach. Mr. Langi's relative could catch it easily by hands.

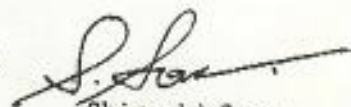
Measurements on 9 August 1994

SCL : 48.2 cm Body Height: 19.2 cm
SCW : 41.2 cm Weight : 11.7 kg
SPL : 39.8 cm

Remarks : Sign of the old shark attack on both hind flippers

The present reporter, an expert of shellfish culture of Japan International Cooperation Agency (JICA), is working at Sopa Mariculture Centre, Ministry of Fisheries, Tonga. I had been worked on the turtle headstarting project at MMDC, Palau. I also had been worked with Mr. Suganuma, Ogasawara, in Japan. I hear many about you from Mr. Suganuma.

With best regards,


Shigeaki Sone.

X
b.

copy
to
John Pomeroy

AQUACULTURE RESEARCH AND DEVELOPMENT PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(J I C A)

C/O JICA FISHERIES PROJECT
P.O. BOX 2480 NUKU'ALOFA,
KINGDOM OF TONGA

TBL/FAX: (676) 23891
Ministry of Fisheries

FACSIMILE TRANSMISSION

10 August 1994

Mr. George Balazs
Leader, Marine Turtle Research Programme
National Marine Fisheries Service
Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear Sir,

I would like to inform you recapture of the tagged turtle in Tonga. Mr. Mata Fonu'a Langi who is an employee of Ministry of Fisheries found a tagged turtle in his relative's house on 9 August 1994. Then, the turtle was brought to the land culture tank at Sopu Mariculture Centre on the same day. Now, the turtle is still kept here but she looks too weak to survive. Recapture data is shown as follows.

Species : Chelonia mydas
Tag # : S 768, ~~WRITE~~ HIMS, UNIVERSITY HAWAII 96744
Date found : 26 July 1994
Location : Sopu, Northern coast of Tongatapu island
Condition : The animal was alive but washed on the beach. Mr. Langi's relative could catch it easily by hands.

Measurements on 9 August 1994

SCL : 48.2 cm Body Height: 19.2 cm
SCW : 41.2 cm Weight : 11.7 kg
SPL : 39.8 cm

Remarks : Sign of the old shark attack on both hind flippers

The present reporter, an expert of shellfish culture of Japan International Cooperation Agency (JICA), is working at Sopu Mariculture Centre, Ministry of Fisheries, Tonga. I had been worked on the turtle headstarting project at MMDC, Palau. I also had been worked with Mr. Suganuma, Ogasawara, in Japan. I hear many about you from Mr. Suganuma.

With best regards,


Shigeaki Sone.

24
b.

Dec. 91 released from Sully
headstart

Technical Cooperation Papua New Guinea and Federal Republic of Germany

MOMA COASTAL FISHERIES DEVELOPMENT PROJECT (MCFDP)

Department of Fisheries & Marine Resources (DFMR)
Fisheries Branch, Department of Madang
Fisheries Division, Department of Morobe
Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ)

P.O. Box 4197
Lae
Papua New Guinea

Phone: 675 421364
423719
Fax : 675 422623

Dr. Rudolf Hermes

Lae, 14 November 1994

To
Marine Turtle Tagging Programme
Hawaii Institute of Marine Biology (HIMB)
University
Hawaii 96744, U.S.A.

Dear Madam/Sir:

A single turtle tag was recently forwarded to us. Apart from your address, it bears the serial number: X-703.


The turtle was caught during the month of September 1994 in the vicinity of Busama village, Huon Gulf, Morobe Province, Papua New Guinea (approx. 30 km south of Lae). The turtle was consumed by the villagers. I could not ascertain size or species. As you will be aware, certain areas on the west coast of Huon Gulf are important nesting spots of leatherback turtles.

Please confirm the receipt of our message by sending us information on the species, date and location of tagging. Please send us also any recent information (scientific articles and/or extension materials useful for public awareness campaigns) which you may have prepared and available for distribution.

We are implementing here a German government supported project for the development of artisanal fisheries. Our activities include extension programmes on resource conservation.

Looking forward to hearing from you.

Yours sincerely,


Dr. Rudolf Hermes

Mr. D. R. Hayes
P.O. Box 4197
LAE
Papua New Guinea



TO Marine Turtle Tagging Program
Hawaii Institute of Marine Biology (HIMB)
UNIVERSITY
HI 96744 U.S.A.



"FONDATION HIBISCUS"

(Association Régie Loi 1901)
Pour la protection des Tortues
BP 184 HAAMENE
Ile de TAHAA
Polynésie Française
(French Polynesia)
TEL. (689) 65.65.65



Dr. KAREN BJORN DAL
DIRECTEUR DU
CENTRE FOR SEA TURTLE
DEPARTMENT OF ZOOLOGY
UNIVERSITY OF FLORIDA
GAINESVILLE
FL 32611
U.S.A

Bonjour le Directeur

A titre d'informations, nous
vous adressons une copie de notre lettre au
Ministre de la Mer de Polynésie Française,
faisant état du sauvetage de 70 tortues
lesquelles, ont été relâchées dans l'océan.
Malheureusement nous craignons que le Populcher
de la seule Ile de Tahaa, en a connaissance,
presque avant.

Je vous en souhaite bonne réception
et une prie de croire à mes meilleures
salutations -

pour la Fondation
P. P. / M. R.

FONDATION "HIBISCUS"

(Association Régie Loi 1901)
Pour la protection des Tortues
BP 184 HAAMENE
Ile de TAHAA
Polynésie Française
(French Polynesia)
TEL. 65.65.65



REFERENCE:

VOTRE LETTRE DU 3 AVRIL 1994
N° 0587 / MMA / SMA

Monsieur le Ministre
DE LA MER
GOUVERNEMENT DE LA
POLYNÉSIE - FRANÇAISE
PARETO
TAHITI
FAX 43 81 55

Monsieur le Ministre,

J'ai l'honneur de vous accuser
RECEPTION DE VOTRE LETTRE, SI DESSUS RÉFÉRENCÉE, sous
FORME D'EXPL. DE JUSTICE.

- Je tiens, à vous rappeler Monsieur le Ministre, que
NOTRE DEMANDE (LA PREMIÈRE) DATE DU MOIS D'AOUT 1991
MAIS JE COMPRENS, DU LE FAUTE, DU TEMPS, QU'IL APPORTE
DES MODIFICATIONS, A LA DÉLIBÉRATION N° 9083 AT DU
13 JUILLET 1990, ce en quoi, TOUTE NOTRE CONFIANCE, VOUS
EST ACQUISE.
- Nous réitérons donc PAR LA PRÉSENTE, UNE DEMANDE
DE DÉROGATION, POUR TOUTE "ASSOCIATION DE PROTECTION DE
TORTUES", AU REGARD, DE LA NOUVELLE RÉGLEMENTATION
PRÉVUE, TOUS EN RÉFÉRENCE À CE QUE NOTRE ASSOCIATION
PUISSE ÊTRE AFFILIÉE, A L'AQUARIOPHILIE.
- Je réitère donc, NOTRE DEMANDE, DU SEUL DROIT, ANX,
A NOTRE ASSOCIATION D'EXISTER.

ET SOLITONS, Monsieur le Ministre, votre réponse dans un délai de 4 mois, pour nous permettre au delà de ce délai, de saisir le Tribunal Administratif, avec l'ensemble du dossier constitué.

- Bien entendu, nous voulons, et solitions, que le relâchage des tortues, puisse se faire, en collaboration de vos services à Raiatea, pour les îles, et par ailleurs des tortues, par des élèves du primaire des écoles de Tahaa, ou avec des touristes, quand nécessaire.

- Depuis plus de 6 mois, nous avons sollicité que les tortues, puissent être lâchées, pour nous permettre de les lâcher.

Devant, le silence de vos services, nous avons pris la décision de les lâcher, et en raison de l'absence de personnes de votre service, et notre désir, de collaborer, et d'être contrôlés, par ces mêmes services, nous vous donnons les dates, et tenons les justificatifs, à votre disposition.

- Vous savez, très bien Monsieur le Ministre, qu'il se passe, beaucoup de tortues, dans les I.S.L.V. et cela quelques soient les "lois" les protégeant et ce serait "pure hypocrisie" que de continuer à avoir une situation de "fait".

- Ce jour nous avons voulu vous montrer, aussi notre bonne volonté, puisque toutes les tortues ont été relâchées.

A compter de ce jour 11 Mai 1984, nous reprenons "nos combats" pour les tortues, car malgré nous il s'en passe, autant rien qu'à Tahaa, que nous n'en savons ! Nous voulons faire la même chose à Bora-Bora, Raiatea - Huahine - Mauviti.

ETAT DES REMISES A L'EAU.

DATES	NOMBRE DE TORTUES	PERSONNES	NOM DU BATEAU OU VOILIER.	DESTINATION
16.10.82	12 TORTUES AVEC BAGUES	ESAAOY.	BATEAU GUAMI FRANCE	SCILLY
07.04.93	20 TORTUES AVEC BAGUES	MARINE NATIONALE EDIC 9074	EDIC. 9074 FRANCE	SCILLY
02.05.93	4 TORTUES ECHAPPEES DU PARC (PARC 1)	-	FORT MARAMU AYANT CASSE UNE PARTIE DU PARC.	LE LARGE LAGON DE TAHAA
22.02.94	7 TORTUES dont 2 TORTUES TETE DECORUEE	SORTIE PASSE DE TAHAA TUHOTOV.	CALCANTANI DE TAHAA-LAGON HIRICUS	PASSE TOMOTOV TAHAA
25.02.94	1 TORTUE	SORTIE PASSE	HAAVITI GERARD DU JEU FRANCE	PASSE.
27.02.94	1 TORTUE	"	BATBAR NORMA PADI FRANCE	PASSE
28 Fevrier 94	1 TORTUE	"	YVES GUILLET FRANCE	PASSE
02. MARS 94 20. Fevrier 94	3 TORTUES	"	DANAE. ENIZAN 2010 FRANCE	PASSE
12. MARS 94	1 TORTUE	"	HAAVITI GERARD D'UNES FAMILLE PETILLA <u>ANGLETERRE</u>	PASSE
12 MARS 94	1 TORTUE	"	BRIHADIER GERARD <u>FRANCE</u>	PASSE
19 MARS 94	1 TORTUE	"	PELUCHON <u>FRANCE</u>	PASSE
19 MARS 94	1 TORTUE	"	SKUA. - <u>FRANCE</u>	PASSE

Du 08.04.94
MMA/SMW

SUITE DES REFUGES A L'EAU

DATES	NOMBRE	PERSONNES	NOM(S) BATEAUX OU DILIGENCES	DESTINATION
26 MARS 94	1 TORTUE	SORTIE DE LA PASSE AU LARGE	SADIARA. FAMILLE BETSCHART <u>ITALIE</u> Philippe Faucon.	PASSE
27 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	ARCHIMEDE <u>BOUY FRANCE</u>	PASSE
28 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	FAMILLE DIMYTRYSHY M <u>CANADA</u>	PASSE
28 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	OUFEN PRILLA HANS DIETER HUCK <u>ALLEMAGNE</u>	PASSE
16 AVRIL 94	1 TORTUE	SORTIE PASSE AU LARGE	NIFARCO BEN STARR <u>U.S.A</u> LAURENT	PASSE
16 AVRIL 94	2 TORTUES PETITES KEA TATS UGE	LAGON	DEUX PETITES TORTUES SE SONT ECHAPPEES DU PARC	LAGON
29.04.94	1 TORTUE	PASSE LARGE	NORBERT EICKNER <u>ALLEMAGNE</u>	PASSE
30.04.94	1 TORTUE	LARGE HVAITIE	MAHINI M. LINDBECK <u>FRANCE</u>	PASSE
30 04 94 ET PRECEDENTS	3 TORTUES	TATTAN DANS LAGON	- FOTO TATTAN LAGON - LEON TATTAN LAGON - PATRICK ARCHIEU	LAGON
06. MAI 94	1 TORTUE	PASSE AU LARGE	ANAI'S JENIFER FISH <u>V.S.A.</u>	PASSE
06 MAI 94	1 TORTUE	PASSE AU LARGE	THE DREAMS VAN DER YEUGHT <u>FRANCE</u>	PASSE
06 MAI 94	1 TORTUE	PASSE AU LARGE	TADJ - SUSAN V. ENROCK <u>USA</u>	

DU 08-04-94
MMA/SMA

SUITE DES REMISES A L'EAU

DATES	NOMBRE	PERSONNES	NOM DES MARAIS DU TULIER.	
10 MAI 94	1 TORTUE TORTUE COQ	SORTIE LARGE PASSE	GANNAPLOT HARMUT-HOLTMANN <u>ALLEMAGNE</u>	PASIE
10 MAI 94	1 TORTUE TETE DE COQ.	SORTIE LARGE PASSE	HITI NUI. COLLIN JEAN. <u>FRANCE</u>	
<u>TOTAL</u>	2 TORTUES	DE	SAUVÉES AU 10.05.94	

Ce chiffre largement insuffisant au regard
du nombre de tortues, consommées
durant la même période aux I.S.L.V.

Du 08.04.94
MMA/SMA

SUITE DES REFUGES A L'EAU

DATES	NOMBRE	PERSONNES	NOM(S) PATRON(S) OU SURNOM(S)	DESTINATION
26 MARS 94	1 TORTUE	SORTIE DE LA PASSE AU LARGE	SADIARA. FAMILLE BETSCHART <u>ITALIE</u> Philippe FAUCON.	PASSE
27 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	ARLHIMÈDE BOUZY <u>FRANCE</u>	PASSE
28 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	FAMILLE DIMYTRYSHYH <u>CANADA</u>	PASSE
28 MARS 94	1 TORTUE	SORTIE PASSE AU LARGE	DUFEN PRILLA HANS HÖRER HUCK <u>ALLEMAGNE</u>	PASSE
16 AVRIL 94	1 TORTUE	SORTIE PASSE AU LARGE	NIEARCO IBEN STARR <u>U.S.A</u> LAURENT	PASSE
16 AVRIL 94	2 TORTUES PETITES VEA TÈTE VEA	LAGON	DEUX PETITES TORTUES SE SONT ECHAPPÉES DU PARC	LAGON
29.04.94	1 TORTUE	PASSE LARGE	NORBERT EILHNER <u>ALLEMAGNE</u>	PASSE
30.04.94	1 TORTUE	LARGE HVAITIE	MANINI M. LINDBERGH <u>FRANCE</u>	PASSE
30 04 94 ET PRÉCÉDEMMENT	3 TORTUES	TATIAN DANS LAGON	- POTO TATHAN LAGON - LEON TATHAN LAGON - PATRICK ARCHISEL	LAGON
06 MAI 94	1 TORTUE	PASSE AU LARGE	ANAI'S JENNIFER RISH <u>U.S.A.</u>	PASSE
06 MAI 94	1 TORTUE	PASSE AU LARGE	THE DREAMS VAN DER YUGHT <u>FRANCE</u>	PASSE
06 MAI 94	1 TORTUE	PASSE AU LARGE	TADJ - SUSAN V. ENROCK <u>USA</u>	

Suite N° 6 du M. 0594

RÉPONSE LETTRE
DU 08.04.94
MMA/SMA

DANS L'ATTENTE Monsieur le Ministre, de
VOTRE ACCORD, POUR QUE LES ASSOCIATIONS "ACTIVES"
PUISSENT CONTINUER A OEUVRER EFFICACEMENT,
VEUILLEZ AGRÉER Monsieur le Ministre A
L'EXPRESSION DE MES RESPECTUEUSES SALUTATIONS

POUR LA FONDATION
P. P. L. MOROU.

A. Morou



U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396
(808)943-1221 • Fax: (808)943-1290

November 7, 1994 F/SWC2:ghb

Constable Arthur Paulino
Rotuma Police Station
Rotuma Island
FIJI

Dear Constable Paulino:

I apologize for my delay in being able to answer your letter reporting the capture of a tagged sea turtle (S463, S463, R1088, & R1089) at Rotuma on August 20, 1994. We sincerely appreciate your taking the time to write to us about such a valuable and interesting event.

The turtle you reported was an adult female green turtle, Chelonia mydas. The turtle had been tagged while nesting ashore and laying eggs at Scilly Atoll (north of Tahiti) October 21, 1992. This tagging study was conducted by Mr. Philippe Siu and Mr. Jean-Pierre Landret in French Polynesia as part of a Pacific-wide conservation and research program by the South Pacific Regional Environmental Programme (SPREP). The distance that turtle S463 traveled to take up residency at Rotuma when not nesting once again demonstrates the shared nature of sea turtle resources in the Pacific islands. Numerous other sea turtle migrations of this nature have been documented by tagging studies. I have enclosed an assortment of articles on the SPREP conservation program, as well as other aspects of sea turtle biology.

Please extend my sincere appreciation to fishermen Mr. Vafou Sosefo and Mr. Etika Matelesi for turning in the tags to your office so they could be properly reported. Some additional information on the capture of the turtle would be very helpful. What method was used to capture the turtle? Are turtles of this large size commonly caught at Rotuma? Approximately how many per year? Is a special area visited to catch turtles, or do they occur all around the island? Are other species, besides the green turtle, found at Rotuma? Has any other turtle ever been captured that had a tag on it? Do turtles ever lay their eggs at Rotuma? And lastly, are turtles shared and eaten in any special traditional manner (feasts or special occasions) at Rotuma?



I am sorry to ask you so many questions, but we have almost no knowledge at all about sea turtles at Rotuma. Your writing to us offers an excellent opportunity to correspond with someone who can supply important information. Thank you for any assistance that you can offer in trying to answer these question.

Copies of my letter, and the letter you sent to me, are being sent to SPREP headquarters in Apia, Western Samoa. SPREP will send you three turtle-design t-shirts as a token of appreciation for reporting the tagged turtle. Please share these with Mr. Sosefo and Mr. Matelesi.

I look forward to receiving a letter from you again at your earliest convenience.

Sincerely,

George H. Balazs
Zoologist and Leader,
Marine Turtle Research Program
(Sea Turtle Technical Advisor to SPREP)

cc
Sue Miller, SPREP
P. Siu & J.-P. Landret, EVAAM

Rotuma Police Station
Rotuma.

S-463 S464
R1088, R1089

*Frequently
Tagged
Scully
Nastig*

29th August 1994.

*MOTU OIA
CCL=97 10/21/92*

Sir/Madam,

On 26.8.94 I came to know that a turtle, presumably a Green turtle was caught off the Western coast of Rotuma on 20.8.94 by local fishermen; VAFOOU SOSEPO and ERIKA MATELESI. On the turtle were four (4) tags with the numbers S-463 and S-464 - HEBB UNIVERSITY HAWAII 96744. The other two tags have the numbers R 1088 and R1089 SPO/REP BPD5 NOUMEA CEDEX NEW CALEDONIA.

Rotuma is about 400kilometres North North West of Fiji and is a dependency of Fiji.

In one of the issues of National Geographic magazine, in 1993, an article on the growing fears of the turtle going extinct was highlighted. I believe that studies are being carried out by institutions such as yours and although we may not have access to data and information collected in regards to the turtle, we would like to know as to the place and date of tagging. As in Fiji the turtles were hunted for its meat from the month of March till October. During these months the turtle do breed. We would be grateful if you could furnish us with more information as to the breeding season of the turtle. If there is a period that the turtles will not breed then I believe that reputed institutions such as yours may lobby for legislation to be enacted to safeguard the turtle breeding season. Not many people here are aware of the danger faced by the turtles.

Your reply on the date and place the turtle was tagged with the above numbers and any other information concerning the turtle will be received with appreciation.

Yours faithfully

AP II
Constable Arthur Paulino



U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Science Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396
(808)943-1221 • Fax: (808)943-1290

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Rotuma Police Station
Rotuma Island
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Sincerely,

George H. Balazs
Zoologist and Leader,
Marine Turtle Research Program
(Sea Turtle Technical Advisor to SPREP)

cc
Sue Miller, SPREP
P. Siu & J.-P. Landret, EVAAM

Rotuna Police Station

Rotuna.

S463, S464
R1088, R1089

8/20/94

29th August 1994.

ORIGINALLY TAGGED
10/21/92 MTU 01A
R1088, R1089 Scilly
S463, S464 CC=97

Sir/Madam,

On 26.8.94 I came to know that a turtle, presumably a Green turtle was caught off the Western coast of Rotuna on 20.8.94 by local fishermen ; VAFOOU SOSEFO and ETIKA MATELESI. On the turtle were four (4) tags with the numbers S-463 and S-464 - HEMB UNIVERSITY HAWAII 96744. The other two tags have the numbers R 1088 and R1089 SPC/REP EPD5 NOUMEA CEDEX NEW CALEDONIA.

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Your reply on the date and place the turtle was tagged with the above numbers and any other information concerning the turtle will be received with appreciation.

AIR MAIL

HIMB UNIVERSITY
HAWAII 96744
HAWAII





6723 23397

Mr George Balazs
NOAA
National Marine Fisheries Service
Southwest Fisheries Center Honolulu Laboratory
2570 Dole Street
Honolulu, HAWAII 96822-2396

20 September 1995

Dear Mr Balazs,

Thank you for your letter dated 12 September, received today. I was pleased to have a response at last, as I had been trying by various means to make the appropriate contact on behalf of the people who made the original report.

I did not personally find this animal. Local residents Michael Jack and his son Edward were fishing at the time they encountered and rescued the turtle, and I believe the circumstances were relayed to you by Col Limpus. I have copied your letter to them, and asked them to answer your question regarding measurements either directly or through me.

It is most interesting to people on Norfolk Island to know that a turtle here has come from such a distance, and we await with interest your information on the exact release site. Presumably it was in the vicinity of Tahiti.

To answer your final question about the incidence of turtle sightings in Norfolk waters, it is not unusual. Mature and semi-mature turtles are regularly seen from many coastal vantage points, and by divers and both rock- and boat-fishermen. There are certain places where one can almost guarantee seeing turtles at any time of year. Turtles are not harvested for food by the local population.

I have been circulating material from SPREP and ANCA to the school and the local newspaper in a consciousness-raising exercise, and have been getting quite a bit of positive feedback from the community. This should hopefully result in a higher level of reporting. The sighting of turtles is so common that there is not a reporting system, unless they are found in distress, or tagged. This is the first tagged turtle I am aware of being found in Norfolk waters. In last Saturday's local paper I did an article based on the information Col Limpus provided last week when we discussed the use of Norfolk by turtles. In that article I requested reports from anybody sighting individuals less than 12 inches in carapace length, as Col is interested in the possible dispersal of hatchlings/juveniles in this area.

Thank you for the enclosures in your letter. The supporters of the International Year are obviously enthusiastic about their subject, and some excellent material has been produced.

I am going to be away from Norfolk Island from 24 September to 31 October, but will look forward to further information being here on my return. I am happy to be of any assistance that I can.

Yours sincerely,

Margaret Christian



Canberra Office
GPO Box 636
Canberra ACT 2601
Ph (06) 250 0200
Fax (06) 250 0399

Park Manager
Jervis Bay
National Park
Village Road
Jervis Bay NSW 2540
Ph (044) 421 005
Fax (044) 438 302

Government
Conservator
PO Box 310
Norfolk Island 2899
South Pacific
Ph + 6723 22695
Fax + 6723 23397

Manager
Calperum Station
PO Box 1752
Reynolds SA 5341
Ph/Fax (085) 857 295

An agency of
the Federal
Environment
Portfolio



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

TELEFAX FOR:

JEAN-PIERRE LANDRET

DATE:

20 SEPT. 95

FAXED
9/19/95
2PG/1SKM

FROM:

George Balazs

TELEPHONE EXT: _____

NUMBER OF SHEETS TRANSMITTED (including this page)

2

MESSAGE:

Dear Jean-Pierre: I hope
you received the fax I sent a
few days ago regarding the
recovery in Norfolk Island (Turtle-P782).

The accompanying letter is Margaret
Christianson's response. Please contact
her, before Sept 24, to tell her
where the turtle was released.
I hope you are well.
Best regards,
Sgt





Queensland Department of Environment and Heritage

160 Ann Street • Brisbane Queensland • PO Box 155 • BRISBANE ALBERT STREET QLD 4002
Telephone (07) 227 7111 • Facsimile (07) 227 6534

Enquired to: Dr. Colin Limpus
Telephone: 07 2277718 (Fax: 07 2276386)
Your reference:
Our reference:

TO: George Balazs
Fax: 00 111 808 943 1290

11 September 1995

Dear George,

1. Thanks for thinking of including me in the November workshop to review status of marine turtles in the Pacific. Unfortunately, I am involved in a Marine Turtle training workshop for East African countries in South Africa at the time. I must decline the invitation. Please pass this reply on to Dr. Laurs.
2. I had a phone call from a lady in Norfolk Island (an Australian Territory) in the south west Pacific. (That makes us sound as if we are a colonial power like the USA doesn't it?) Among the various things discussed was a turtle tag with an Hawaiian address for which she said she has never had a reply to her letters. I assured her that if you knew of her correspondence you would have replied. The information is as follows:

Tag number "P782"

(not written at the time the turtle was rescued but written soon after - two people involved. tag in front flipper, ?left axillary area.) (Return address on reverse side of tag was reported as: "Write University of Hawaii, 96744")

Species: almost certainly *Chelonia mydas*.

Size: -2ft long, -15" wide.

(guessed size, not measured)

Date: 4 March 1995

Location: "The Cord", a rock pool on the north side of Norfolk Island (29°S, 167°E)

Circumstances:

Turtle stranded in rock pool at low tide along with some small sharks. Turtle rescued by two folks who released it immediately into the adjacent sea. It was then reported to

P782
6/17/93 on 10/1/93?
9.6kg
Silly 44cm = ~17"

the local ANCA office.

Could you please reply direct to Margaret Christian (I presume she is a descendant of Fletcher Christian ex *HMS Bounty*.) , Fax 0011 6723 23397; mail Box 310, Norfolk Island, 2899, Australia. I would appreciate a copy of the outcome, thanks.

3. News: I've just returned from 3 weeks of freshwater crocodile research in north Queensland. A good trip, -190 crocs captured from big breeding adults down to yearlings. All survived the trip although I had a nasty bite to one hand. Several fingers are still not fully operational but they will come good eventually. There are certainly some places one should not put one's fingers. Some of us are slow learners. This is the study I've had going for 20 years now. The crocs are so different to the turtles with respect to aging and reproduction studies. For the first few years they remain within a few hundred metres of where they are born. They are commencing to breed at 12-20 years of age, many are breeding in successive years, they lay one clutch of 12 eggs in a season, no migration. But like the turtles they are very long lived - the oldest crocs at the site are probably in excess of 60 years and still breeding.
4. Question: Did you receive a parcel from me recently with copies of tag recoveries from the SPREP region?

Regards for now,

Dr. Colin LIMPUS
Manager, Research and Monitoring (Maritime)

Queensland Department of Environment and Heritage

180 Ann Street • Brisbane Queensland • PO Box 155 • Brisbane Albert Street Qld 4002

Telephone (07) 227 7807 • Facsimile (07) 227 6386



Date 13.9.95 Time sent _____

Please deliver the following pages to

Name George BALAZS

Business/Section NMFS Honolulu Hawaii

Fax number 00 111 808 943 1290

From Name Col Limpus

Business/Section CONSERVATION STRATEGY BRANCH

Number of pages _____ including facsimile cover sheet

Special precedence Confidential Urgent

Notes ① Margaret Christian's Fax: 0011 6723 23397

be aware that I am endeavouring to have Margaret involved in our first Turtle audit. Dring.

② Re Turtle workshop - December would be more suitable. Give me precise dates - I'll try to make it. Also include level of report presentation / publication expected.

③ I know you would not disappoint me with a rapid reply to Margaret. *Tokyo Pacific greens. bll.*

SEP 13 1995 12:47PM ENV&HERIT-CON STRAT 07 2276386

TRANSMITTAL SHEET



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

TELEFAX FOR: MARGARET CHRISTIAN CC J-P LANDRET
NORFOLK ISLAND C. LIMPUS

DATE: 12 SEPTEMBER 95

FROM: GEORGE BALAZS

TELEPHONE EXT: _____

NUMBER OF SHEETS TRANSMITTED (including this page) ONE

MESSAGE:

DEAR MARGARET CHRISTIAN: COL LIMPUS RELAYED TO ME THAT YOU RECOVERED A SEA TURTLE WITH "HIMB UNIV. HAWAII" TAG P782 STRANDED ALIVE IN A ROCK POOL ON THE NORTH SIDE OF NORFOLK ISLAND ON 4 MARCH 1995. THE RETURN ADDRESS ON OUR TAGS HAS ALWAYS WORKED SUCCESSFULLY FOR US, BUT IN THIS CASE YOUR LETTER DID NOT REACH US ("KANEHOE HAWAII 96744"). THE TURTLE YOU FOUND AND RELEASED IMMEDIATELY WAS ORIGINALLY TAGGED BY MY FRIEND AND COLLEAGUE, MR. JEAN-PIERRE LANDRET OF EVAAM IN TAHITI. THE TURTLE, CHELONIA MYDAS, A GREEN TURTLE (HONU IN TAHITIAN) WAS ONE OF A NUMBER OF TURTLES RAISED AS HATCHLINGS COLLECTED AT SCILLY ATOLL NORTH OF BORA BORA. THE TURTLE WAS TAGGED, USING ONE OF OUR SMALLER TAGS, ON 17 JUNE 1993. AT THAT TIME IT WEIGHED 9.6 KG, AND MEASURED 44CM IN CARAPACE LENGTH. I DO NOT KNOW THE EXACT DATE THAT THE TURTLE WAS RELEASED INTO THE OCEAN, NOR EXACTLY WHERE IT WAS RELEASED. I AM CERTAIN THAT MR. LANDRET WILL RELAY THAT INFORMATION TO YOU, AND SEND COPIES TO MYSELF AND COLIN LIMPUS. FROM THE DESCRIPTION THAT COLIN GAVE ME, IT WOULD APPEAR THAT THE TURTLE WAS HEALTHY. I SEE THAT YOU ESTIMATED ITS SIZE AS "2 FEET". WAS THAT ESTIMATE JUST THE CARAPACE, OR DID IT ALSO INCLUDE THE LENGTH OF THE HEAD? THE ORIGINAL CARAPACE MEASUREMENT OF 44 CM WOULD BE EQUAL TO 17 INCHES.

THANK YOU VERY MUCH FOR REPORTING THIS IMPORTANT INFORMATION. BY AIR MAIL I WILL TAKE THIS OPPORTUNITY TO SEND YOU LITERATURE ON SEA TURTLES ALONG WITH MATERIAL ON 1995 "YEAR OF THE SEA TURTLE" IN THE PACIFIC.

IN CLOSING, I MIGHT SAY THAT IT WOULD BE INTERESTING TO KNOW IF SEA TURTLES, ESPECIALLY GREEN TURTLES, ARE NORMALLY SEEN LIVING ALONG THE NORTH SHORE OF NORFOLK ISLAND. OR WAS THIS SIGHTING OF TURTLE P782 A RARE UNUSUAL OCCURRENCE?

BEST REGARDS AND ALOHA,

FAX

C. Limpus = 61722-76-386

J-P Landret = 689 57 7056



AQUACULTURE RESEARCH AND DEVELOPMENT PROJECT

Arrive le 2/11/94
N° 175 / EPT

JAPAN INTERNATIONAL COOPERATION AGENCY
(J I C A)

C/O JICA FISHERIES PROJECT
P.O. BOX 2480 NUKU'ALOFA,
KINGDOM OF TONGA

TEL/FAX: (676) 23801
Ministry of Fisheries

FACSIMILE TRANSMISSION 908 9k3 12 90

FAX to M^r G. BALAZS

02 November 1994

Mr. Jean-Pierre Landret
E.V.A.A.M.
Ecloserie Polyvalente
de Taravao
Taravao, Tahiti

FROM JP LANDRET.

Best regards

Jean-Pierre

Dear Mr. Landret,

I would like to inform you that the tagged turtle was found again in Tongatapu. The data is shown as follows;

Species : Chelonia mydas
Tag# : P 740, WR(H?)ITE HIMB, UNIVERSITY HAWAII 96744
Date found : 01 November 1994
Location : Polo'a, Northern coast of Tongatapu island
Condition : The animal was caught by fishing fence in the lagoon. She is relatively fine and no sign of disease.

Measurement on 02 November 1994

	Straight	Curved	
Carapace Length	48.3 cm	52.8 cm	Body Weight: 10.5 Kg
Carapace Width	41.3 cm	50.4 cm	
Plastron Length	38.3 cm		
Plastron Width	34.6 cm		
Body Height	17.6 cm		

Remarks : Deformed right hind flipper
: The animal will be released in near future but now she is in captivity at Sopa Mariculture Centre.
: Information will be sent to SPREP too.

Best regards,

S. Sone
Shigeaki SONE



FAXED
10-14/7:20
3PG/6K



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center Honolulu Laboratory
2570 Dole St. • Honolulu, Hawaii 96822-2396

Commercial: (808) 943-1221
Telefax: (808) 943-1290

TELEFAX FOR: J. P. LANDRET DATE: 13 OCTOBER 94

FROM: GEORGE BALAZS TELEPHONE EXT: _____

NUMBER OF SHEETS TRANSMITTED (including this page) 3

MESSAGE:

Dear Jean-Pierre = you
are absolutely correct. Mr. Sore's
early letters, and my letter to you,
said tog S-768. However,
his letters of August 12 and 15 said
S-763 (see accompanying letters). Now
I don't know which turtle it was.
Can you please write to him and
find out? Let me know.
Best regards to you and to
Philippe.

George



PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

(J I C A)

C/O JICA FISHERIES PROJECT
P.O. BOX 2480 NUKU'ALOFA,
KINGDOM OF TONGA

TEL/FAX: (676) 23891
Ministry of Fisheries

FACSIMILE TRANSMISSION

12 August 1994

Mr. George Balazs
Leader, Marine Turtle Research Programme
National Marine Fisheries Service
Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear George,


Thank you very much for your fax dated 11 August 1994. According to your request, I took measurements again as follows.

Measurements of the S-763 turtle

Curved Carapace Length: 51.8 cm
Curved Carapace Width : 48.0 cm
Curved Plastron Length: 50.0 cm
Curved Plastron Width : 36.0 cm

Since the animal has recovered in the tank, it will be released in near future. Therefore, I could not identify the stomach contents, however, I found too much plastic trash in the feces. Data of the release will be sent you later.

Best regards,


Shigeaki Sone
JICA Shellfish Culture Expert
c/o JICA Fisheries Project
P.O.Box 2480
Nuku'alofa
Tonga

AQUACULTURE RESEARCH AND DEVELOPMENT PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(J I C A)

C/O JICA FISHERIES PROJECT
P.O. BOX 2480 NUKU'ALOFA,
KINGDOM OF TONGA

TEL./FAX: (876) 23891
Ministry of Fisheries

FACSIMILE TRANSMISSION

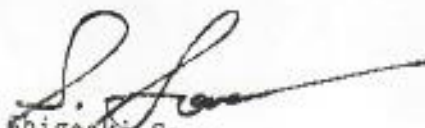
15 August 1994

Mr. George Daidas
Leader, Marine Turtle Research Programme
National Marine Fisheries Service
Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear George,

I would like to inform you about release of the S-763 turtle. At 4:45 p.m. on 12 August 1994, the turtle was released from Vuna wharf, Nuku'alofa, Tongatapu island by the officer of Ministry of Lands, Survey and Natural Resources. This event will be advertised on the local newspaper, therefore, the turtle may be free from fisherman. I hope that she will be recaptured in another place such as Fiji in healthy condition.

Best regards,


Shigeaki Sone
JICA Shellfish Culture Expert
c/o JICA Fisheries Project
P.O.Box 2480
Nuku'alofa
Tonga

1994 P80 21

Date: Fri, 2 Sep 94 12:55:53 PDT
From: Mailer-Daemon@bbs.lbc.com
To: gbalazs@honlab.nmfs.hawaii.edu, Postmaster@bbs.lbc.com
Subject: Returned mail: Request from unregistered user

----- Problem with session -----

You must be registered to use the gateway. This is necessary to satisfy FCC regulations. To register just send a message to gateway_info@lbc.com

The message should contain your call, first name, city, state, zip and home bbs if you have one.

If you have already registered it is possible that your 'From:' field has changed and I can no longer recognize you.

Possible matches on username:

Possible matches on domain:

----- Unsent message follows -----

Return-Path: <gbalazs@honlab.nmfs.hawaii.edu>
Received: from honlab.nmfs.hawaii.edu by lbc.com (4.1/SMI-4.1)
id AA22271; Fri, 2 Sep 94 12:55:40 PDT
Received: by honlab.nmfs.hawaii.edu (931110.SGI/920502.SGI.AUTO)
for IPGATE@N6QMY.lbc.com id AA01623; Fri, 2 Sep 94 09:51:00 -0900
In-Reply-To: <9409020647.AA18034@lbc.com>
Message-Id: <Pine.3.89.9409020922.F701-0100000@honlab.nmfs.hawaii.edu>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Date: Fri, 2 Sep 1994 09:50:58 -0900 (HST)
From: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
To: N7BPT@bbs.lbc.com
Cc: IPGATE@N6QMY.lbc.com

Dear Phillippe: It is good to hear from you, especially on this email system. I hope you can now be a regular user, as this is a very efficient, fast way to communicate. The turtle S 759 was one of your turtles released at Scilly 23/06/93, according to records you faxed me. It weighed 18.24kg, and measured 51.5cm and 50.5cm. I will be interested to hear its size now, if it is in healthy condition, and how it was caught (was it "tame" and easy to catch?).

The meeting in Apia went very well. Mostly we planned for 1995 Year of the Sea Turtle in the Pacific Region. Sue Miller is in charge of this campaign for SPREP. I specifically asked Sue about why you hadn't attended. She said that she sent repeated faxes and letters to every address she had for you, but that no one ever responded. She also said that she tried telephoning you direct, but that she couldn't get ahold of you.

Looking forward to hearing from you again. I have just returned yesterday from an 8 day visit to work with turtle researchers in Taiwan. I was in the Peng-Hu Islands in the Taiwan Strait. They have green turtles nesting there, but they are VERY few in number. Best regards, George.

On Thu, 1 Sep 1994 N7BPT@bbs.lbc.com wrote:

> TO: GBALAZS@HONLAB.NMFS.HAWAII.EDU
> Papeete August 31,1994
>
> Philippe SIU
> Punaauia

88 92 09 20

Date: Thu, 1 Sep 94 23:47:05 PDT
From: N7BPT@bbs.lbc.com
To: GBALAZS@honlab.nmfs.hawaii.edu, IPGATE@N6QMY.lbc.com
Subject: tagged turtle HIMB S 759 found

TO: GBALAZS@HONLAB.NMFS.HAWAII.EDU
Papeete August 31, 1994

Philippe SIU
Punaauia
T^1.436788
Papeete-Tahiti

Message to: Dr. George BALAZS
NMFS, Southwest Fisheries Science Center
Honolulu Laboratory, Hawaii

Dear George,

A fisherman from Moorea caught a tagged turtle HIMB S 759 yesterday. The turtle is safely maintained in captivity. I will go tomorrow to Moorea to take picture and all informations: size and different observations. I suppose this turtle has been tagged by you because we do not have this series of number here.

It is not a green turtle I will be able to confirm if it is a loggerhead. Can you tell me more about this turtle? I intend to put a new tag before we release this turtle. Have you any other suggestions?

Have you attended the last meeting in Apia? I have no news from SPREP people.

I hope this message will reach you and I am waiting for answer if possible before I go to Moorea. Thank you.

Best regards, Iaorana
Philippe SIU
(relayed by Charles Vollum, fo0vol/n7bpt on board VIRTUE)

Xerox
for Tahiti
Book

Vao, 26/07/1994.

To Sir Georges H. Daltz.

I was very surprised of your answer.

I send you my thanks for the green tee shirt.
I am thinking of the Green Peace ship for
the protection of the animals.

May I know something about your work
on the marine Turtle research?

Do you use Turtle like a food or only in
laboratory? Do you allowed some visitors in
your laboratory?

Please, have you another free tee shirt
for a man, the same size like mine?

With my thanks again.

Yours sincerely,

DOUËPÈRE

MISS DOUËPÈRE MARIE

MOTU-ONE Recovery



Nom et adresse de l'expéditeur :
Sender's name and address

Miss Douereke Monec.

8 P 58 Vao, Ste des Pins.

Tel 46 1010 at 7^h30 A.M.



LE PLI SERA ACHÉMINÉ PAR VOIE DE SURFACE-S'IL RENFERME UN OBJET QUELCONQUE
AN AIR LETTER SHOULD NOT CONTAIN ANY ENCLOSEURE IF IT DOES IT WILL BE SENT BY ORDINARY MAIL
Second page - Second fold

PAR AVION
BY AIR MAIL

Mr George H. Galatz
Hanolulu Laboratory
2570 Dole Street
Honolulu, HI 96822-2396



NOUVELLE-CALÉDONIE
AÉROGRAMME
AIR LETTER



D-18 □ Monday, July 4, 1994

PEOPLE

Marlon Brando now lighter by 40 pounds

HOLLYWOOD — Marlon Brando has lost 40 pounds "and I plan to lose 30 more," he says.

Between takes on the Culver City set of "Don Juan De Marco and the Centerfold," which will film on Oahu's North Shore later this year, Brando said, "I've never felt as well and never been happier."

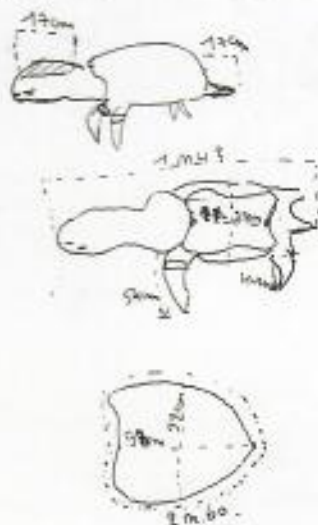
The 70-year-old also said he wants to open a museum in Los Angeles dedicated to the American Indian. He still has hopes to do films about the Indians. "I have such wonderful stories," he says sadly, recalling plans with a major TV producer and a network that went awry a few years back.

He has plans for two of his Tetiaroa islands in Tahiti, one to be devoted to preserving Tahitian culture, the second as a natural reserve.

VAO, le 26th April 1994.

Monsieur,

I must apologize for being so late with my answer.
Following that phone call from the 5th April 1994, I've
some informations concerning a captured turtle in Island.
pines. It was caught in Baie d'Ufi at VAO in Island
of this on 4th April 1994. There are 2 marks on the front
legs: Side 1 S. 193 Side 2 North H. P. B. University /
March 26 1994.



Ecaille Petrine = 80cm
= 34cm

longueur totale Arrière: 97cm

Tête + Anus = 13cm each

Front leg, nageoire ventrale: 54cm

Back leg, nageoire arrière: 41

longueur totale, face ventrale:

Ecaille du dos = 92cm longueur
→ 97cm longueur
= 2 m 60 percute.

I hope you will understand all these measurements. We can
weigh it. Please can you send me no book on the turtles. I want
to know about the age of that one we caught. In the
Pacific is there any breeding ground for turtles?
I thank you for being in contact with me.

With my best regards.

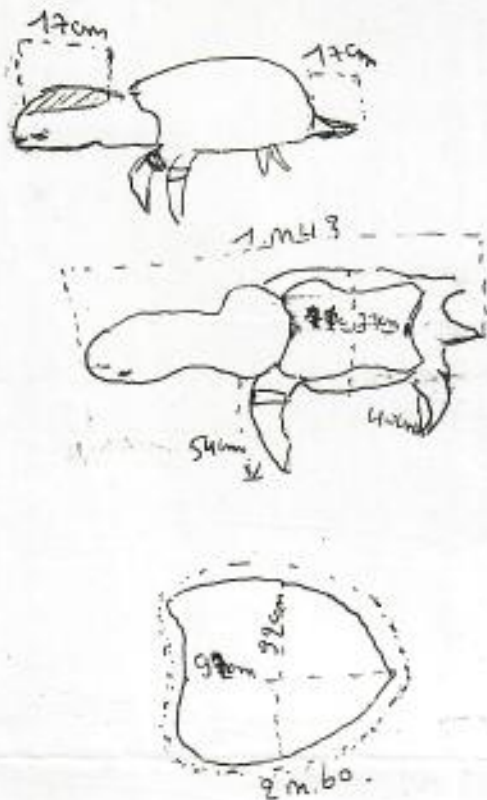
Dominique MALE CONSERVATION.

VAO, le 26th April 1994.

Monsieur,

I must apologize for being so late with my answer.

Following that phone call from the 5th April 1994, here are some informations concerning a captured turtle in Island of Pines. It was caught in Baie d'Upi at VAO in Island of Pines on 4th April 1994. There are 2 marks on the front legs: side 1 S. 197 side 2 write: Univ. B. University / Hawaii 96764.



Ecaille Poitrine = 80cm
= 31cm

Largeur Ecaille Poitrine: 77cm

Tête + Queue = 17cm each

Front leg, longueur avant = 54cm

Back leg, longueur arrière = 40cm

Longueur totale, face ventrale: 1m¹¹

Ecaille du dos : 92cm largeur
97cm longueur
: 2 m 60 permètre.

I hope you will understand all these measurements. We cannot weigh it. Please can you send me no book on the turtles. I want to know about the age of that one we caught. In the Pacific is there any breeding ground for turtles?
I thank you for being in contact with me.

With my best regards.

Leslie Doleman.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Fisheries Center
Galveston Laboratory
4700 Avenue U
Galveston, TX 77551-5997

April 14, 1992 F/SEC7:MR:EFK:mr

MEMORANDUM TO: George Balazs

FROM: Maurice Renaud *M Renaud*

SUBJ: Sea turtles crawling over extensive reef flats to nest

At the Sea Turtle Meeting (2/92) in Jekyll Island, GA you requested information regarding the nesting of sea turtles that required their crawling over rocks to get to the beach. I never had a chance to tell you that I had some video of this behavior near Madagascar in the Indian Ocean. Unfortunately I wasn't able to take the pictures myself. I got them off a National Geographic Special on TV in the mid-1980's. It is the standard video on sea turtles (nesting, poaching, survival of hatchlings, etc.), with a special section on the topic in which you are interested. I hope you enjoy the tape. You may keep this copy. If you need a video with a better start up, just let me know and I'll fix a new one for you.

I plan to be in Hawaii this December and will look you up.



South Pacific Commission
FAX Number (687) 26.38.18
Noumea, New Caledonia



Commission du Pacifique Sud
Numéro de FAX (687) 26.38.18
Nouméa (Nouvelle-Calédonie)

FAX MESSAGE

FAX NO.: 1 808 943 1290

NO. OF PAGES: 1 (INCLUDING THIS ONE)

TO: Dr. George Balazs, NMFS Honolulu Lab., Hawaii

FROM: A.D. Lewis, SPC, Noumea

DATE: 16 June, 1994

FILE: PRO 93/3/30

SUBJECT: CONTINUING TURTLE TAG SAGA

MESSAGE:

Dear George,

Back on deck, to report the latest developments in the saga of turtle tag no.S197.

More information from the very helpful Mme Marie Douperé, who ⁴was provided a series of measurements, which I shall mail separately to you. In brief, the carapace length seems to have been about 97cm. We have been in telephone contact with her, providing some of the basic details, but it would be best if you send the reward shirt and any more precise release details to her at the address below. It is indeed an interesting recovery, having moved more than 2,000 nm in the 18 months since release.

More importantly, she indicated that quite a few tagged turtles have been recovered in the past in the area (which is a nesting area), but no one knew what to do with them. The classic tagging programme "achilles' heel". Perhaps it would not be too late to send a few posters, even if they are in English.

Mme Marie Douperé
B.P. 58
98832 VAO
Ile des Pins
New Caledonia

Re the SPC leaflet and the turtle recipe, I can only note that turtle remains traditional and much esteemed fare in many parts of the South Pacific, even though its use (particularly in non-traditional contexts, such as export of shell for ornamental use) is appropriately being increasingly restricted. We of course exist only to serve the SPC member countries, and the SPC nutrition folks presumably are just reflecting the fact that turtle is still commonly eaten in many areas. Assuming harvest at traditional levels is sustainable, this seems far less reprehensible than some of the heinous crimes visited on turtle populations by our society in the past for far less valid reasons eg. canned turtle soup, calipee etc. Enough already - the values of the West imposed by hindsight on the developing world always depress me, even if they are correct.

With best wishes,

A.D. Lewis
Oceanic Fisheries Coordinator

Reward
T-shirt?

S197

SOUTH PACIFIC COMMISSION
FAX NUMBER (687) 26 38 18
NOUMEA, NEW CALEDONIA

COMMISSION DU PACIFIQUE SUD
NUMERO DE FAX (687) 26 38 18
NOUMEA (NOUVELLE-CALÉDONIE)

FAX MESSAGE

FAX NUMBER: 1-803-243-1292 NO OF PAGES: 1 INCLUDING THIS ONE
TO: George Balazs, NMFS Honolulu
FROM: John Hampton, SPC Noumea
DATE: 5 May 1994 FILE REF: PRO/93/3/30
SUBJECT: Tapped Turtle S197

Dear George

Tony has just left for 5 weeks vacation. Unfortunately, it appears as though there were no size measurements taken of S197. A shame for such an interesting recovery - it happens to us with tuna all the time!

Regards


John Hampton