

Fourth Trip to Kachiclaure

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4th Trip to Kaho'olawe 19 Nov 76

19 Nov 76
Tue

- Robert J. Hommon
Forbes Motorcade, Pat McCoy & Mary Weinstein

Salvage of Site 109

Arrived on Kalamazoo about 1:30 P. Set
up camp ~~and~~ 13 tents in "prairie area"
and a shelter for pots around 3:00. Sundown
ca. 5:30, left site.

At the site the primary ~~detritus~~

At the site the primary ~~structure~~
goal was to acquaint everyone with
the nature of what remains. The primary
of conversation was the major component
of the site, namely, the submerged structure
themselves. It was not mentioned in the
initial notes, but the number of arched
floors is quite small, and the major
~~most~~ visible site consists of comparatively
few quality loose changes, mostly
measuring about two or three meters
~~or~~ a mile. In some areas seen on the
last trip, survey inspection showed that
these stones appeared in most of the
down out sites and that there was a
high correlation between their presence and
the presence of arched and arched

810

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remains. On the basis of guide record,
the tentative conclusion was that these
shock pieces ~~are~~ resulted from the
tearing of rocks for good ~~from~~ material
for crushing.

However, it seems clear now, that at least in the case of the 109, most of the architectural material placed ~~there~~ the results of furnishings made, etc. usually on old, prehistoric acquired elsewhere, on the island.

True and other evidence, raises several problems. One is: where is the source, which in many instances when we return to the old workshop falls in the trap, another speaker question ~~is~~ has to do with a number and trend and economic function of sites: the known that when they arrived at the place that now to become the camp sites they were carrying evidence of which we find in shells, since we know of ~~no~~ ~~no~~ accounts of determining shellfish in the context time. Except of all - contact within their shells, this

in turn means that at least some of the
pieces of the site came from the ocean,
directly. However, at the site some of the
cave were overlying each other - forms
which we think came from the center
of the island were on lead, suggesting
that some of the waste came from the
central part of the island (if we're right
about the source.) If the source is
actually at the coast where the shells
came from, the question is: why did they
come upland at all. One answer
is farming, but if farming was at
Lua Malaka and other similar places
as I suspect, why did they camp (if
these are camps) on sites 109, 110, 111
etcetera - why not take on the lava
malaka. (Also, why did they "farming")
all these items associated
with their crafts (i.e. glass, adze, pre-
forms [wide flaked], conical shell lenses, ~~and~~
spheres and pears the conical shell

spheres?

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all the things we look to the
blocky rocks. P. McCoy suggests they
are fire-cracked or at least weakened
along blocky-type fracture planes by
exposure to fire, ~~either~~ either as fire-
place rocks or as stones. This would
explain virtually all observed facts:
1) the association with cultural remains
of objects which were not made
deliberately by man; 2) the blocky
fracturing, which differs clearly from
the observed natural weathering of
stones seen everywhere around us.
It is clear that in these cases where the
original surfaces of these stones ~~are~~
can be seen they exhibit the rounded
shapes of the naturally occurring rocks.
It looks as though site 109, despite
the fact that it is on a definite slope that
we estimate to be 10-20%, represents
relatively little scattering displacement

down the slope. Simple reasoning is that the total upslope-downslope of the site is only about 20 m (pave. level) so that ~~not~~ no part of the site have been moved ~~there~~ more than this distance, and most of it less.

The amount of basaltic glass is amazing. There are considerably more flakes and cores of glass than of basalt. It will be very interesting to see how the date ranges cluster, in view of the fact that this site was probably used ~~at~~ only once, ~~for a short time~~.

In relation to the main cluster of site 109, there are two others, ~~one~~ one is just on the other side of ~~a~~ a bank. Crater I don't remember this crater from last time - might look at slides - in fact there is a cluster of craters in this area. At any rate, we can't say that we have no evidence of destruction of site from ~~before~~ any more and the

guide

other is upslope from main cluster, and on the other side of the airfield. The one upslope seems to consist entirely of the flaking-cracked rocks.

Both Pat and Murray agree that the guide ~~is~~ is on both sides of the (Kamela and —) are probably only a few centuries old -- possibly as young as 100-200 years, which means first that the erosion that represent could be the result of local influence; and second that the landscape was considerably less dissected in the past - contact point, though the slope were probably about the same.

20, Nov 76 (Sat)

GC
GF
BF
MS

Established N-S and E-W baseline with blue carpenter's chalk lines all bearings and measurements.

Took series of photos of general site -- one series of 9 shots (6-14) is from exterior, ~~the other~~ series of 8 shots from intersection of handlines from all perspectives. Note: each and each shot are arranged at: North (red), W (orange), S (blue) and E (~~the~~ green).

Grid system: 2x2 m grids using central point as 0-0 and e.g. N-2, E-4, etc. Collecting by categories in each square consecutively. Thus:

- Bivalve Shells = GF
- " " = GC
- Bivalve Flakes = BF
- Marine Shells = MS
- Coral = C

Metal: over 1 cm in greatest dimension

Square N1W1

Photos taken: Roll 2 -- Frame 26

B/W: " " " " 6

MS 1 150 ⁵⁴ 1.24 m. ~~these from~~
MS 2 150 2 pieces total in square
Spherical weathered shells: 124 x 17 cm.

Angular material: 34 smooth, 1 vesicular
Metal 10

N1W2 Color 2-27 B/W 2-7

MS 2 BF-1 66 SN/131 WE

Angular material: 90 smooth 9 vesicular
Spherical. 8 x 6 cm.

Metal: "

N1W3 Photos: Color 2-25 B/W 2-8

MS-3 gr

Angular: 138 smooth 15 vesicular Metal: 14
Spherical: 3x2 ~~2~~ x 2 cm. many more vesicular

N1W4 Photos: Color 2-29 B/W 2-9

MS: 1 Metal: 4 Michael Bivalve

Angular Material: 17 smooth 6 vesicular

center of
rectangular
weathered
square

N1W5 Photo: Color 2-30 / BW 2-10

GF-1: location

75 SN, 95 WE
 Measurement: low round, very overhad. 1
 For mainly a naturally flaked piece

Metal: 11

Angular: 32 nonperpendicular / 2 recicular

N2W1 Photo: Color 2-31 / BW 2-11

MS: 2

Metal: 7 / Angular: 28 smooth / 0 recicular

Glass GF-1: 195 SN / 53 EW

GF-2 25 NS / 49 EW

BF-1 70 NS / 71 EW

N2W2 Color 2-32 / BW 2-12

MS: 3 zero

Metal: 7

Angular: 53 smooth & recicular

N2W3 Color 2-33 / BW 2-13

MS: 1

Metal 10 Angular: smooth 157 recicular 18

GC-1 140 WE, 144 NS

N2W4 Color 2-34 / BW 2-14

19

MS: 1

123

Metal 13 Angular: nonperpendicular 11 recicular

N2W5 Color 2-35 / BW 2-15

MS: 2 zero

Metal: 10 Angular: 42 nonperpendicular / recicular

N3W1

Color 3-33-4 BW 2-16-17 2x24
 Photo: -33-16 are slightly lumpy they appear

MS: 4

Metal: 7 Angular: 72 nonperpendicular 3 recicular

BF-1 22 EW / 11 NS

BF-2 21 EW / 23 NS

BF-3 25 EW / 38 NS

BF-4 4 EW / 44 NS

BF-5 65 EW / 61 NS

BF-6 107 ~~EW~~ SW / 74 NS

BF-7 46 EW / 158 NS

BF-8 75 EW / 05 N

N3W1 (continued)

- GF-1 12 NS/4 EW
 GF-2 49 NS/84 W/E good end.
 GF-3 52 NS/63 W/E beautiful
 GF-4 160 NS/54 EW
~~GC-1~~ 129 NS/86 EW GC-1 / K L L
 GC-2 55 NS/102 WE
 GC-3 60 NS/81 WE very nice
 GC-4 52 NS/15 WE (? - had sample from it)
 GC-5 93 NS/55 EW
 GC-6 97 NS/82 EW
 GC-7 113 NS/69 EW very large
 GC-8 131 NS/53 EW
 GC-9 140 NS/55 EW good
 GC-10 153 NS/62 EW
 GC-11 0° SN-58 EW (off paleore flow!)
 GC-12 159 NS-101 EW

N3W2 Color 3-5/BWZ-18

MS=0

Metal: 5

BF-1 66 EW/179 NS
 Angular: 50 mm, 4 mm
 GC-1 36 NS/22 EW
 (note: only in small place; little were observed)

MS=0

Note: numerous angular, non-spherical
 angular rocks in a "plume" pool in
 erosion channel; plume pool: 37x40 cm
 and 11 cm deep, also 5 pc. metal

N3W3 Color 3-6/BWZ-19

MS=0

GC-1: 94 NS/126 WE
 Metal: 7

Angular non-spherical: 276 microns; 19
 rounded pieces: 14 wide x 11, length-
 rating: 13; (freq. only, length: 17)

Note: This is the very heavy "concentra-
 tion" near the crater that is visible in
 many of the photos.

N3W4 Color 3-7/BWZ-20

MS=0

Metal: 14 Angular Stone: massive; 37 microns; 2
 BF-1 3 WE/55 SN

20

N4W5 color 3-8 / BWZ-21

MS: 1

GC-1 55 EW / 15 SN

GC-2 90 EW / 0° SN

Metal: 8

Angular: Nonvascular: 34; ~~vascular~~ = 0N4W1 color 3-9 / BWZ-22

MS=0

GF-1 47 EW / 157 NS (polished)

~~GC-1~~

GC-1 58 WE / 6° SN (good slope)

BF-1 81 WE / 63 NS

BF-2 79 EW / 127 NS

BF-3 107 EW / 178 NS

Angular: Nonvascular: 41 (non-0)

Metal: 8

N4W2 color 3-10 / BWZ-23

MS=0

GF-1 28 EW / 29 SN

Metal: 7 (sluid=1)

Angular: ~~Nonvascular~~: 19 (vascular)
Buried in metal aluminum?

20

N4W3 color 3-11 / BWZ-24

MS=0

Base
Core # 112 NS / 132 WE

Metal: 11

Angular: Nonvascular: 34 Vascular
Buried in aluminum: Metal=4; Rock=1N4W4 color 3-12 / BWZ-25

MS=

Metal: 12

Angular: 23 ~~nonvascular~~ 0° vascular

GC-1 27 EW / 142 NS

N4W5 color 3-13 / BWZ-26

MS=1

BF-1 112 NS / 12 EW

Metal: 6

Angular: 9 Nonvascular

GC-1 123 EW / 34 NS

N5W1 Color: 3-14 / BW 2-27

Metal 7
Angular: 12 mm V

N5W2 Color 3-15 / BW 2-28

BF-1 25 NW / 2 NE
Metal: 7
Angular: 9 mm V

N5W3 Color 3-16 / BW 2-29

MS=1 (epidic)
Metal: 6
Angular: 8 mm vascular

N5W4 Color 3-17 / BW 2-30

Metal: 9
Angular: 2 mm vascular / 1 micaceous-1

N5W5 Color 3-18 / BW 2-31

Metal: 2
Angular: 3 mm vascular - 0 vascular

N6W1 Color 3-19 / BW 2-32 & -33

BF-1 73 NS / 48 WE
BF-2 79 NS / 48 WE
BF-3 125 NS / 23 WE
BF-4 485 N / 82 WE
Metal: 10
Angular: 27 = mm V
0 = V

N6W2 Color 3-20 / BW 2-34 20

Metal: 9
Angular: 24 mm vascular. 0 Vee.

BF-1 = 155 NS / 181 WE
MS=1 (weathered Thio → Surface pitted metal)

N6W3 Color 3-21 / BW 2-35

Metal: 7
Angular: 2 mm V; 0 = V

N6W4 Color 3-22 / BW 2-36

Metal: 35 (surface) 6 under alluvium
Angular: 0 (surface) 0 under alluvium

N6W5 Color 3-23 / BW 2-37

Metal: 10 (surface) 19 under alluvium
Angular: 1 (") 0 " "

N7W1 Color 3-24 / BW 2-38

Metal: 6
Angular: 11 (vascular)
Bead Pile 75 N / 20 WE
The ~~rest~~ northern boundaries not noted

N7W2 Color 3-25 / BW 3-2

Metal 9
Angular: 7

21

S1W1 Color 3-26/BW 3-3 $\frac{4/3}{135}$

Metal = 11

Angular: 136 Nonvascular 8 Vascular

S1W2 Color 3-27/BW 3-4

MS = 1

GC-1 10 NS/86 WE

GC-2 73 NS/119 WE

GC-3 73 NS/75 WE

GC-4 109 NS/60 WE

Metal = 8

Angular 67 NonV 0 Vascular

S1W3 Color 3-28/BW 3-5

Metal = 17

Angular 64 ~~64~~ NonV 3 Vascular
(2 buried angular)

Coral = 1

MS = 2 (Thais: frags)

Mang. Metals: 92 NS/96 WE

BF-1 148 NS/58 WE

S1W4 Color 3-29/BW 3-5

Metal = 11

Angular = 37 Nonvascular 10 Vascular
Buried = 1 " "

Zite

S1W5 Color 3-30/BW 3-6

Metal = 7

Angular 22 Nonvascular 1 Vascular

BF-1 = 535 N/O.E.W.

3774
square
 $\frac{37}{4}$
14 sq. cm.

B

As our kept can reliably see, we started collecting today. We've covered a 148 square meters (37 square) and have some interesting results already. Numerous datable pieces of glass, flint and most importantly for purposes of dating technology, clay the 3 fire-cracked rocks are not only differentially distributed (which we knew already) but also they seem to be distributed by size in some place. This is

especially true around the large concen-
tration ~~that~~ in the NW quadrant that
is in many photos.

All photos were taken from the north
as indicated in each square

NOTE on MEASUREMENTS for
locating: read eg. "97 NS/42 EW" as
97 meters, measuring from north to south
and 42 cm measuring from east to west

A primary reason for recording
the metal fragments is to compare with
the distribution of angular boulders

After work, we walked up Kowloon
gulch back to camp. Many found a
series of small dikes at the bottom
of the gulch. Evidence for the second
line in Hawaii, we found a series
of basaltic plates, not a quarry, but
the place is large enough and old
enough to use for tools.

GO BACK TO R. Z. 20; NW 2-21
METAL?

The "found" notes in a number of squares
refer to alluvium: ~~to~~ fine material in
tiny gulches a few cm deep and wide: ca
2-15 cm deep and 10 to 40 cm wide.

21 Nov. 1976

AM covered photos BW & color
at glass source & site 14 which
is above it in bank.

SZU 1 color 4-2 / BW 3-13

Metal: 11 (2 subangular)

Angular: 81 mmV; 3 neocircular
subangular: 3

GC-1 (frag) 21 WE / 6 SN

SZU 2 color 4-3 / BW 3-14

Metal: 17 (1 subangular)

Angular: 70 mmV; 34 4Vea.

MS. 2 (B frags)

BF-1: 57 NS 69 EW 1 many, and

S2W3 Color 4-4 / BW 3-15

✓ Metal: 17

✓ Augulus: 35 Non V 2 Vascular

MS-2 (Thais frag) + 1 subcap (frag)

S2W4 Color 4-5 / BW 3-16

✓ Metal: 18 (mostly small)

✓ Augulus: 21 Non V 4 Vascular

✓ MS=1 (Thais frag)

2 many nodules

S2W5 Color 4-6 / BW 3-17

✓ BF-1: 19EW / 109SN ~~GF-1~~: 70SN 0 WE

✓ Metal: 14

✓ Augulus: 91 Non V 2 Vascular

1 nodule

S2W6 ✓ Only glass noted - no phos

✓ GC-1 138EW 0SN

S3W1 Color 4-7 / BW 3-18

✓ MS-1 Thais frag

✓ Metal: 11

✓ Augulus: 26 Non V 2 Vasc.

✓ 1 many nodule

S3W2 Color 4-8 / BW 3-19

✓ MS=1 Thais (complete)

✓ Metal: 9

✓ Augulus: 18 Non V 0 V.

5 " (subcap.)

S3W3 Color 4-9 / BW 3-20

✓ Metal: 14

✓ Augulus: 16 Non V 3 V.

✓ BF-1 105SN / 93EW

✓ MS=1 (Thais frag)

S3W4 ^{No FOTD} Color 4-10 / BW 3-21

✓ MS=1 (Thais: nearly complete 7 metal

S3W5 ^{No FOTD}

✓ Metal: 9

✓ GF-1: 40EW / 36SN ✓ Augulus: 6

✓ MS=1 (frag)

22 NO FOT
2 Baal 7 lakes in non recorded area

S1W6 → BF-1 29SN/34EW

A1W6 → BF-1 97EW/91NS

S4W1 Color 4-10/BW3-21

Metal: 11
Angular 22 and 4 vesicular
MS=1 7 hair (frag)
GF-1 = 28EW/104 NS

N1E1 Color 4-11/BW3-22

Metal: 13
Angular 53 non. V. 2 vesicular
MS: 3 (2 coarse, 1 thin all frags)

GC-1 24SN/11WE

GC-2 35SN/52WE

GC-3 10SN/109WE

GC-4 18SN/104WE

GC-5 16SN/146WE

GC-6 21SN/32EW

GC-7 88NS/44EW

GC-8 = 67NS/59EW
GC-9 = 72NS/67EW
GC-10 = 59NS/61EW

GF-1 = 42NS/53EW
GC-11 = 20NS/82EW
GC-12 = 20NS/97WE

N1E2 Color 4-12/BW3-23

1 Core
MS=6 7 (1 coarse & 6 thin frags)
Metal: 10
Angular: 62 don't, 1 vesicular

GC-1 (frag) 28SN/5WE

GC-2 31SN/23WE

GC-3 31SN/47WE

GC-4 215SN/56WE

GC-5 45NS/83WE

GF-1 48SN/28WE

*Long good must study

N/EZ (continued)

GC-6 61SN 28WE	GC-13 58SN 26EW
GC-2 91SN 32WE	GC-14 68SN 22EW
GC-7 97SN 10WE	GC-6 69SN 27EW
GC-3 102SN 3WE	GC-15 55SN 50EW
(Hog) GC-8 72SN 62WE	GC-16 95SN 16EW
GC-9 2SN 76EW	GC-7 93SN 17EW
GC-4 10SN 77EW	GC-17 52SN 63EW
GC-5 23SN 35EW	GC-18 44SN 74EW
GC-10 3SN 25EW	GC-19 77SN 72EW
GC-11 23SN 49EW	GC-20 69SN 105EW
GC-12 45SN 63EW	GC-21 93SN 84EW
GC-22 89SN 91EW	GC-22 28NS 85EW
GC-23 96SN 118EW	GC-23 29NS 110EW
GC-24 83SN 120EW	GC-9 4NS 81WE
BF-1 81SN 121EW	GC-32 62NS 126EW
GC-25 128SN 20EW	GC-33 65NS 131EW
GC-26 40NS 18EW	GC-34 73NS 121EW
BF-2 35NS 21EW	GC-35 79NS 111EW
GC-27 124SN 75EW	<u>Pickover</u> 93NS 132EW
GC-28 124SN 78EW	BF-4 8NS 13WE
GC-29 46NS 88EW	GC-10 1NS 26WE
*GC-8 44NS 91EW	
GC-30 32NS 64EW	

N/E3 Color 4-13, BU 3-24

MS=2 (opposite & 1-2 both forage)

Metal 8 110

Amphibian 36 35 May 1 Newbury

BY QUADRANTN/E QUADRANT

GC-13 58NS 36EW } cluster

BF-1

General NE Quad

GC-3, 4 & 5 (one enormous)

SE Quad

GC-1 } cluster 30EW 90SN

BF-2 & 3

General

GC-24 6 & 7

SW Q

GC-8-17

GC-2 & 3

BF-4 & 5

NW Q

GC-18, -19, -20 } cluster 22NS/30WE

GC-4

2 BF-6 & 7

5 GC-21-25

1 GC-5

N1E4 color 4-14, BAV3-25

NE Quadrant

GC-1 $\frac{1}{2}$ 2

BF-1

MS=1 (course)

SE Q

GC-3 $\frac{1}{4}$ 4

GF-1

SW Q

GC-5

GF-2

NW Quadrant

GC-6

Metal: 11

Angular: 10 new, 0 vascular

N1E5 color 4-15, BW3-26

Metal: 17 6 subsurface

Angular: 12 new, V.

NE Q = 3000

SE Q = 3000

SW Quadrant

GC-1, 2, 3, 4

BF-1

NW Q

GC-5

MS=1 (course frag)

N1E6 (no photo, etc.)

Angular 8

N2E1 color 4-16, BW3-27

Metal: 11

Angular 67 new 90 V.

NE Quadrant

MS=3

GC-1-7

GF-1

~~GC-1~~

SE Quadrant

GC-8, 9, 10, 11, 12 → cluster resins 4400

General:

1 GC-13-19

2 GC-22 $\frac{1}{3}$ 3

BF-1

SW Q

MS=2 (1 course, 1 debris-frag)

1 BF-2

1 GF-4

4 GC-20-23

~~GC~~ NW Q

MS=2

General: 1 (poor worked, but well stored)

GC-24, 25

GF-5

23

NZE2 Cor 4-17, BU 3-28

Metals
angular ss non 4 linear

Note: General phototaken of overle in
NZE3 incl a cluster of 5 and in SWg.

NE Quad

BF-1

GC-1-45

Coral: 1 piece (vertical)

SE 2

MS=2 (thick & red shell frag)

GC-6, 7, 8

SW Quad

Cluster:

GC-9-21

1 GF-1

1 BF-2

General

GC-22, 23, 24

GF-2

BF-3

1 piece: vesicular glassy scoria
(unmelted: possibly from surface
of floor)

NW Quad

Cluster

GC-25, 26

89 MS/45 EU [18x12 cm cluster dim.]

NZE3	cd	BU
	21	33

Cluster dim: 57x50cm

NW Quad (cont)

General:

GC-27, 28

BF-5

MS=2 = 7 frag: coarse & thio

NZE3

Cor 4-~~28~~ & BU 3-~~28~~
21 33

Metals: 19

Angular: 39 non 0 v.

NE Quad

GC-1-44

GF-1

BF-1

SE Quad

General: 2 spec. Coral

MS=2 (helmet & gastropod frags)

GC-5, 6, 7

2 GF-2 & 3

Cluster in streamlet bottom

1 BF-4

4 GC-8, 9, 10, 11

SW Quad

Cluster in streamlet bottom

2 GC-12, 13 &

2 C1 vesicular glassy scoria

1-BF-5 &

General:

2 GC-14, 15 and 20 (to good stone sample)

2 BF-6, 7

MC-1 (from 1st sample)

NWQ

MS = 1 (Copied from)

4 GC-16, 17, 18, 19

NZE4 color 4-~~24~~²²/BW 5-~~34~~

Metal 18

Angular 23 non V = Vaccines

NEQGC-1 $\frac{1}{2}$ 2SEQGC-3 $\frac{1}{2}$ 4SWQGC-5, 6 $\frac{1}{2}$ 7NWQ

cluster: 56EW/21MS; 19x11 cm area

GC-8 9 $\frac{1}{2}$ 10

Several:

7 GC-11 $\frac{1}{2}$ -17

1 BF-1 (pore from preform; definite network - pore network)

NZE5 color 4-23/BW 3-35

Metal 8 (5 carburetor) [36-general]

13 non V 0 vac. BW4-1-general

NZE1 color 4-24/BW 4-2

Metal 12

Angular 100

NEQ

GC-1, 2, 3, 4, 5

SEQ

GC-1, 2

GC-6, 7, 8

GC-1, 2

SWQ7 GC-9 $\frac{1}{2}$ -15NWQ

4 GC-16-19

1 pc. coral (pore rounded)

① N3E2 color 4-25/Bu/4-3

NW Q

Cluster 53 NS 164 EW ~~in~~ 20x10 cm

2 GC-21, 22^{ok}

1 GF-9^{ok}

General MS=1 (?)

3 GF-~~21, 22, 23, 24, 25~~ 11, 12

3 GC-23, 24, 25^{ok}

3 BF-~~21, 22, 23, 24, 25~~ 2, 7, 8

3 GC-~~19, 20~~ 19, 20

3 GF-~~6, 7, 8~~ 6, 7, 8

2 BF-4, 5^{ok}

② SW Q

2 GC-~~19, 20~~ 19, 20

3 GF-~~6, 7, 8~~ 6, 7, 8

2 BF-4, 5^{ok}

③ NE Q

7 GC-1-7

2 GF-1, 2

1 BF-1

MS=1 (frag.)

Cluster

loc. 36 EW/95 NS (22x8)

4 GC-8, 9, 10, 11

④ SE Q

Cluster 127 NS/137 EW (7x9 cm)

1 GC-8^{ok}

2 GF-3, 4

para extra GC 5 EQ

N3E3
C-4 4-4

SE Q (cont.)

General MS=1 (frag.)

10 GC-9-18

2 BF-2, 3

1 GF-5

N3E3 color 4-26/Bu/4-4

NE Q

General

GC-1-6

BF-1

SE Q

Cluster #1 43 EW/30 SN (6x5 cm)

GC-7, 8, 9

Cluster #2 35 SN/65 EW (5x4 cm)

GC-10, 11, 12

General

MS=1 (copied whole)

1 BF-2

5 GC-13-17

1 GF-1

SW Q

MS-3 frag.

2 BF-3, 4

9 GC-18-26

24

NWQ
1 BF-5
3 GF-2, 3, 4
10 GC-27-~~35~~ 37

N3E 4 color 4-27/BW 4-5

NE-None Metal 7
Angular 12 mm V

SWQ cluster 15 WE/11 SN (15x10cm)

3 GC-1, 2, 3
1 GF-2

General

1 GC-4
1 GF-3

NWQ MS=1 flower complete

2 GC-5, 6
2 BF-1, 2

N3E 4 color 4-28/BW 4-6

Metal 13 surf (3 outboard)
Angular 1 mm 2 Vase (3 mm Vase)

N4E1 color 4-~~28~~²⁹/BW 4-~~5~~ 7

Metal: 9
Angular 43 mm V 1 V.

NEQ None

SEQ GC-1

SWQ BF-1

NWQ

None

N4E2 color 4-30/BW 4-8

Metal 14
Angular 117

NEQ MS=1 flower frag

1 BF-1
2 GC-1, 2

SEQ

2 BF-2, 3
2 GF-1, 2

SWQ

1 head pottle: one surface per pottle
30 GC-3, 4, 5

138
26
53
117

N4E2
color 4-30/BW 4-8

2485

N4E3 Color 4-31 Bu 4-9 $\frac{51}{173}$

Metal: 12

Angular: 113 non V - V,

NEQ

1 BF-1

SEQ

MS=1 (thio frog)

1 GC-1

SWQ

1 GF-1

5 GC-2, 3, 4, 5, 6

NWQ

5 coral frogs perh same piece

5 GC-7-11

1 GF-2

N4E4 Color 4-32 Bu 4-10

Metal: 12

Angular 1.5 (+1 hand) 2 Vase

SEQ

1 BF-1

NWQ

1 BF-2

24

N4E5 Color 4-33 Bu 4-11

Metal 8

Angular 6 non V, 2 non V

N5-E1 Color 4-34 Bu 4-12

Metal 12

Angular 18 non V - V,

NEQ

1 BF-1 (Thatale)

N5-E2 Color 4-35 Bu 4-13

Metal: 12

Angular 100 non V,

including one measuring 57x22.5x7.5

NEQ

2 GC-1, 2

1 GF-1

SEQ

MS=1 (frog)

1 GC-3, 4, 5, 6, 7, 8

SWQ

1 GC-9

NWQ

MS=1 thio frog

4 GC-10, 11, 12, 13

N5E3 Color 4-3C/Bu 4-14

Metal 14

Angular 59 mmV — V

SEQ

1 BF-1

SWQ

1 Beach Belle: 118 NS/100W
long & narrow

ZGC-1 1/2 Z

NWQ

1 GC-3

N6E1 Color 5-1/BW 4-15

Metal 16

Angular 80 mmV — V

SEQ

4 GC-1-4

1 BF-1

SWQ

1 BF-2

MS=1 (partially frag)

Nothing in other quadrants

N6E2 Color 5-2/BW 4-16 24

Metal 13 (all small)

Angular 83

SEQ

MS=1

1 BF-1

SWQ

MS=1 (course frag)

5 GC-1-5

1 Broken Beach Belle 185N/21 WE

N6E3 5 Metal/2 Angular

N7E1 No Photo — Rocks & metal only

Metal 2

Angular 12

N7E2 No Photo — Rocks & metal only

Metal 2

Angular 3

1

N7E3

Metal 3

Angular 2

45 Agave — Today

37 " yesterday

82

25

(21 Nov cont.)

This AM we returned to the newly discovered phase source and ~~at~~ ^{at} mined in the vicinity. Before going down to the source, we found a site complete with at least two fireplaces under the red alluvium and about 15-20 m. above the bottom of the gully. The pillow-type deposit (not a dike, however) that contains the phase seems to dip upward and seems to outcrop behind where the site presently sits (although many times the site, along with surrounding material, may have slumped as a single mass) and may possibly have been mined by the inhabitants. Two indications of this are 1) that at least one of the stones of the fireplace has a phase crust and 2) in the shale material along from the site were (in addition to shells and shell-looking small flakes) a piece of glass or one piece of waste near [Site 114]

25 22 Nov 1976 (Site 109 Kakehane Cmt)

Note: Date on several more cultural items
agreements were collected today: i.e.

- N1 W6 = 15 angular of metal
- N2 W6 = 29 " 8 "
- N3 W6 = 8 " 3 "
- S1 W6 7 " 5 "
- S2 W6 3 " 11 "
- N1 W7 5 " 4 "
- N2 W7 4 " 6 "

(Note: several taken yesterday gen)

S1E1 color 5-10 BU 4-19
metal: 14 62 sub surface)
Compuhan 93 Nov V Z V.

NEQ

MS=1 frag Thais

1 GC-1

SWQ

1 GF-1

NWQ

1 GF-2

S1E2 color 5-11 / BU 4-20

25

metal: 9

Compuhan: 29 Nov V, 3 V.

NEQ

NEQ

MS=1 frag

5 GC-1-5

2 GF-1, 2

SEQ

MS=1 frag

2 BF-1, 2

4 GC-6, 7, 8, 9

5 GF-3-7

SWQ

MS=4 (3 Thais, 1 Compuhan)

5 GC-10-14

5 GF-8-12

NWQ

Compuhan #123 SN / 50 WE (13x7 cm large)

2 GC-15, 16

1 GF-13

Compuhan #10 NS / 51 WE (6x6 cm)

1 GC-17

2 GF-14, 15

1 BF-3

26

S/E C color 5-15/BW 4-24

Metal: 5 (2 buried)
Angular 30 mm V

N/E Q (" 2 buried)

1 GC-1

S/W Q

1 BF-1

ZGC-2, 3

S/E Z (no plate, no allard)

5 = metal

7 angular

SZE 1 color 5-16/BW 4-25

Metal: 3

Angular 11 mm V 5 V

S/E Q

1 BF-1

NW Q

MS-1 w/old Thais

1 Basalt core remnant (w/old core)

1 BF-2

SZE Z color 5-17 (5-18), BW 4-26 (5-27)

Metal: 13

Angular 39 mm V 1 vertical
(3 mm V buried)

N/E Q

MS=1 (frag, Thais)

data fragment: 1075N/70EW (both points visible (N)
Plate, Broken: post- and -thru on both end caused blade and
→ color 5-18; BW 4-27
fracture

S/E Q

MS=1 (frag, Thais)

S/W Q

MS=1 (Thais frag)

NW Q

1 GF-1 (buried)

SZE 3 color 5-19/BW 4-28

Metal 12

Angular: 23 mm V 1 V

N/E Q

MS=3 (frag = 1 Thais & 2 waste)

GC-1-1

10 GF-1-10

S/E Q

1 BF-1

3 GC-7, 8, 9

2 GF-11, 12

Plate
color
5-17 = square
5-18 = cleavage
of old fragment
color: BW
4-26 39
4-27 39

SWQ

MS = 7 frags
 2 GF-13, 14
 2 GC-10, 11

NWQ

General:
 MS = 1

3 BF-2, 3, 4
 6 GC-12-17
 5 GF-15-19
 Cluster: 129 SN / 115 EW (30 x 15)
 3 GC-18, 19, 20
 4 GF-20, 21, 22, 23

S2E4 Color: 5-20 BW: 4-29

Metal: 21

Amplitude 3 mm V, -V

NEQ

1 GF-1

SEQ

3 GC-1-3

SWQ

MS = 1 (surf) 1 rock surf

2 GC-4, 5

1 GF-2

1 BF-1

NWQ

2 GC-6, 7

S2E5 Color: 5-21 / BW: 4-30

Metal: 25

Amplitude 11 mm V, -V

NEQ

1 BF-1

SEQ

1 GC-1

1 GF-1

SWQ

1 GC-2

NWQ

1 BF-2

1 GC-3

1 GF-2

S2E6 Color: 5-22 / BW: 4-31

Metal: 7 Amplitude: 26 mm V, -V

NEQ

1 GC-1

SWQ

1 BF-1

53E 5-36 27
 " 4 35 26
 " 3 34 25
 " 2 33 24
 " 1 32 23

25 SE E7 (No Photo)
 Metal: 15 (3 buried)
 Angular: 16 (1 ")

NEQ
 1GC-1
 SEQ
 1GC-2 } both ~~good~~ large

26 SE E1 Color 5-23 / BU 4-32
 Metal: 5
 Angular: 48 non V, 4 V.

NEQ
 1BF-1
 SWQ
 1GF-1
 1GC-1
 MS=1 frag
 NWQ
 2GC-2, 3

26 SE E2 Color 5-24 / BU 4-33
 Metal: 6
 Angular: 6 / non V 2 V angular

NEQ
 1GC-1
 NWQ
 1GC-2

37-1 SE E3 Color 5-25 / BU 4-34
 Metal: 13
 Angular: 39 non V / 1 V angular

NEQ
 1pc. coral
 1GC-1
 2GF-1, 2
 SEQ
 2GF-3, 4
 1GC-2
 SWQ
 1GC-3
 1GF-5
 NWQ
 MS=1 thaiso frag
 1BF-1

27

S3E4 Color 5-26 / BW 4-35

Metal: 17 (2
Angular 6 non V 1 Va.

NEQ

1GC-1

SEQ

{ 1BF-1 (~~in streamlet~~)
3GC-2,3,4
MS=2 skull frag } curved in streamlet

2GF-1/2 (surface)

SWQ

(surface)

{ 4GC-5-8
10GF-3-12

(cleaned
MS=1 (course frag)

4GF-13,14,15,16

NWQ

2GF-17,18

1GC-9

MS=1 frag

S3E5 Color 5-27 / BW-36

Metal= 11
Angular: 6 non V — 1/
No More Noting

NEQ

1GF-1

SWQ

1GF-1

S3E6 Color 5-28 / BW 5-1

Metal 15 (+ 2 metal subfrag)
Angular 6 non V

NEQ

1GF-1

S4E1 Color 5-29 / BW 5-2

Metal: 10

Angular: 24 non V 2 V.

NEQ

MS=1 (Main complete)

SEQ - none

SWQ

103 MS/90 WE
A lot Blank frag (i.e. cannot distinguish)
find for my, as one can in (blank)

S4E2 Color 5-30 / BW 5-3

Metal: 10

Angular 47 non V 1 Vascular

NEQ

1GC-1

2GF-1/2
2GC-2,3
1GF-1 (in hole)

29	2	1	29
30	3	2	30
31	4	3	31
32	5	4	32

27

S4E3 color 5-31 BW 5-4

Metal 7

Angular 70 non V $\frac{1}{4}$ / VascularNEQ

1 BF-1

1 GF-1

SEQ

2 BF-2, 3

S4E4 color 5-32 / BW 5-5

Metal

Angular: 6 non V—V.

NWQ

2 GF-1, 2

2 GC-1, 2

SWQ

1 BF-1

2 GF-3, 4

Proton

S6E1 = Angular = 8 Metal = 9

S6E2 = " = 10 " = 6

S6E3 = " = 21 " = 8 $\frac{1}{4}$ / vascular

S7E3 = " = 810 " = 87

BF-1 (SEQ)

BF-2 (NWQ)

27

S5E1 color 5-33 / BW 5-6

Metal: 12

Angular 29 non V 3 Vascular

NEQ

1 BF-1

SEQ

MS = 1 / Nois complete

SWQ

1 BF-2

NWQ

1 GF-1

1 BF-3

S5E2 color 5-34 / BW 5-7

Metal: 9

Angular 22, 1 Vascular

NEQ

MS = 1 / frag

SEQ

MS = 1 / frag

SWQ

1 GF-1

Note Additional: S5W1 = 15 angular

" Metal

AND NS = 4 = 0 angular

S5E3 Color

Metal: 10, one five piece
Angular 28 new V=3

NEQ

1BF-1

S5E4 No Photo

Metal: 5
Angular 16 new V—V.

SEQ

1GC-1 (unworked)

S6E4 No photo

Metal: 7
Angular 40

NEQ

MS=1 prog

SEQ

MS=1 prog 1BF-1

SWQ

MS=1 prog

S7E4

Metal 5 work,
Angular 8 new V

NWQ

MS=1 prog.

S6E5 (no photo)

Metal: 3
Ang: 4

SEQ

1BF-2

NEQ

1BF-1

NWQ

1BF-3

1GC-1

SWQ

MS=1 (prog) (exhib)

Temporary Station Basin

13F-1
1 pc. Coral
3 GC-1-3
3 GF-1-3

Amphibian = 7

3.7 m X 2.5 m X 40 cm deep

Entrance Cascade = 1.6 m long X 1.2 m wide

Photos:

4 Entrances & 1 Exit
~~Entrances~~ ~~from site~~ feed from
upside site

artifacts from top to bottom of exit
slit = 25 cm deep. at deepest

Exit channel has material all the way

ZZM₁ (cont)

After visiting and collecting, we saw
certain lines and spots in the drainage
pattern and the location of the nearby
crater and the concentration on the other
side of it as well as the concentration
of stones on the other side of the run-
way.

Meanwhile, Mung and Pat went $\in$
across the gulch and found a new
site, which we're designating site #115.

Mung is developing a reasonable
history of geology (recent) for the island
which includes a description of the gulches
followed by deposition of ~~the~~ 3(?) layers
of soil, at which time the gulches were
V-shaped valleys, gently sloping. Followed
by farming through soil down to & through
basalt basement. Then present filling of (some)
gulches w/ presently seen bottom sand.
Note: Site 114 is on one of the sides (where small)

28
23 Nov 1976 (Tue)

Returned to site 108 and Mauve
and Pat. We travelled nearly on a
straight line from the camp to
the site - rather than on the
road. By doing so we traversed
a slope of fine Mauve that we
had never surveyed before. On the
way we discovered what may be
the biggest cich Succow site known
in the islands except for Mauve
Kea. It appears as cich places
remaining greatly in size and cich
preference on the ground of small
and large hummocks. Though the
remains pin out, ~~the~~ ten all
of these concentrations (including the
original feature with spin) ~~are~~
clearly constitute one single site.

[Note on Policy: The extension of rate 108 and the discontinuance of rates 114 and 115 points up the fact that we'll have to change over inventory policies from one concentration on areas of

targets, etc to a survey that truly reflects the geographical resources of the island. This means considerable expansion of the project.]

Many more triangular and 3rd bearings from original picture of site 108; (all magnetic)

220° to Radar Beam

c. 25° to Mozula

188° to NE end of A-5 (Runway)

02° to E end of S-19

c. 1860 to 70s Radar Bends near A-5

73° to joint cluster down hill ²⁵⁰
90° to a second cluster (c. ~~250~~^{250m}?)
81° to a third cluster (c. ~~340~~^{250m}?)
75° to a fourth cluster (c. ~~340~~^{250m}?)

$$\begin{array}{r} 450 \\ 200 \\ \hline 650 \\ 223 \\ \hline 873 \end{array}$$

Site 114:

In a site situated near the base of a grey stratigraphic unit that underlies a ~~fine~~ ^{finely} bedded red unit are the top two layers of soil that had been isolated by ~~many~~ ^{what} ~~was~~ cut through to form the present gulches. Site 114 is directly above the glass source discovered earlier.

The most significant feature of the site is a fireplace in the process of eroding out of the gulch bank at the bottom of the grey layer. Note that the grey layer is visible along a considerable distance of Kanhera gulch.

Three *Eparki* & *paupai* shells have been found on the steeply sloping ^{eroded} surface of the site and in the distinctive ^{red} colour that has eroded from the

site. Also burnt places in the tuba. One glass flake c. 10 cm from the F.P. and 10 cm above the bottom of the charcoal, but certainly a surface find. But clearly the site.

The fireplace has been located along a N-S line. Crustaceans least two other fireplaces; one upland & one main [neither as good as this one]

Another piece of glass from C, 1.4 m N of F.P. and c. 0.5 m above bottom of charcoal (centrally) Also on surface of slope.

Detailed section of F.P. measured

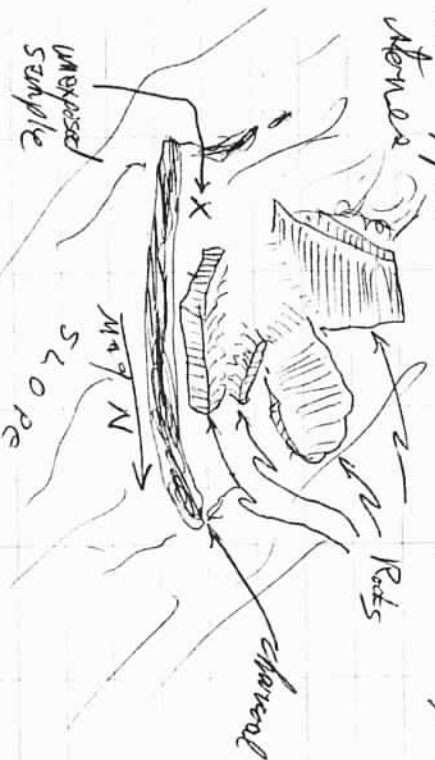
0.55 m (N.S.) (measured along the bottom of the charcoal). The F.P. seems to include four exposed stones (almost certainly others as well) including a thick slab with glassy-bonding surface sitting directly on top of the charcoal. Charcoal is in clumps that average about 2 x 1 x 0.5 cm and charcoal layer is 7 cm thick.

(Note: one more stone almost ready to drop into gulch) all stones are vicinular.

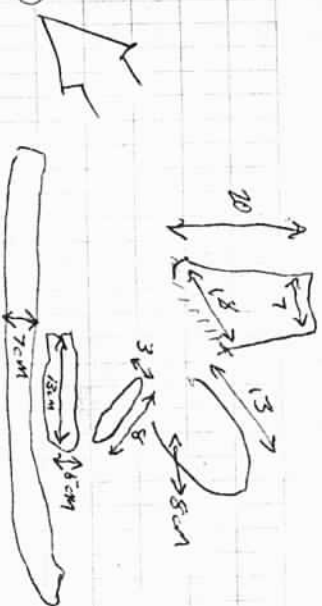
[Thickness of gray layer here: c. 50 cm.]

These place seem slightly disturbed and appear to have no bedding

stones



Two carbonaceous bodies; one from exposed, the other unexposed.



Location of site 114: from site 109.
331° May.

Site 115:

This site is the one that Murray and Pat visited yesterday. Though there is a basement within a few meters of the site nearly every thing is exposed except for the contents of the ~~rocks~~ ^{rocks} surrounding mounds which are remnants of soil but have no vegetation

Special ~~features~~ features of the site include the remnants of an inner ring of one of the mounds (correlating with the slight overhang seen in features of site 110 and suggested at site 109) and clearly indicated by angular stones ~~extents~~ (virtually the same as those that indicate presence of site 109 and others) concentrated in an oval shape measuring 1 m (NS) x 60 m (EW) and including not only charcoal, but also fire-purged soil around the outside.

Another feature of interest is a concentration of burned coral that seem to be eroding out of a cluster of large stones from head size

to torso size (coral up to 2 ft size 29)

In addition to an abundance of glass flakes and coral (more flakes than coral?) including ~~usually~~ ^{usually} large ones (could be longer average than usual) and numerous small flakes there are thin, pink, coral

also two sinphores and an odd perforated (quadrangular) one of the (broadish) sinphore is well ~~shaped~~ ^{shaped} and polished and. ~~truncated~~ ^{truncated} seemingly truncated at one end. The other is not as fine and is more usually shaped.

[Note: the flakes are around the north mound, which is similar to the inner mound except that it is larger and has no evidence of fire.]

Bearing & distance to fine amber & age =

(Note: concentrations of angular stones are at approx same distance & bearing

Bearing to the sinkhole (and a piece of glass)
 Distance " " "

[Note: the spine seems to be 2 concentric circles of stones and several large stone in center]

Another exhibit: an odd, irregularly shaped $\frac{1}{2}$ lb in core section -- and a piece of glass next to it, collected. The site seems to have at least 3 separate activity areas (one, during, reciprocal)

Site 116 $\rightarrow$ 5 PM (Heber till sundown)

A small shell midden on the E edge of Konedara patch. Shells present: spili, a very few very large, but most smaller than most on Kakerua, many pipipi, some, some large to large ~~amounts of~~ this, but not four in comparison. Perhaps $\frac{1}{3}$ or more are burned

Roughly 6 m in diam with some remnant reddish brown soil in the center

24 Nov 1976 above map reading ~~22nd~~

Returned AM to the Malesia area:

Site 103 (Ulivilili site: remember! also: 294° to Mozu & 224° to Branch coral) 294° to Mozu & 224° to Radon Bank Pine Muri

Site 101 (Structure (w/ty: unusual # of water over stone -- also Branch coral): Bearing: 267° to center of Mozu appears to be the summit from here) and 220° to Pine Muri (Radon Bank) Small to medium sized stones (not as large as some nearby) and some coral. Very few ~~large~~ stones, some activity localities. Most represent activity and activity. The look at site

Site 102: After bearing. Wee that one 115° it is clear that this site, like that one probably has ~~more than one~~ distinct activity areas. In addition to the "shrine" (corally) part -- here as at 101 there is an unusually large & of another area. Stones (mostly 3 to 10 cm in size) as though a pavement ~~was~~ here of one time more place is being collected from here

Site 101 by Muri and 101 by Muri. The water worn and ~~tried~~ standing in the in area of the Branch coral. Distinct areas are compared stones almost exclusively. Bearing: 267° to ~~the~~ Mozu & site 101

