

**A PRELIMINARY LOOK AT GROUNDSTONE DISTRIBUTION
SHOOFLY VILLAGE**

**ASU Field School 1985
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**SHOOFLY CHAPTER
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PROJECT DESCRIPTION

The purpose of this paper is to determine and plot the distribution of groundstone artifacts collected during both the '84 and '85 seasons at Shoofly Village near Payson, AZ. These distributional maps will be based on frequencies only and will not take volume of dirt moved into account. The various levels and loci will not be considered at this time. It is intended to be only a gross analysis of the spatial relationships of groundstone at Shoofly Village.

DATA

The data used in this analysis consists of 298 groundstone artifacts collected and analyzed during the course of investigations at Shoofly Village directed by Dr. Charles L. Redman during both the 1984 and 1985 field season. Groundstone from last year's work that has not been analyzed was not included. Also excluded were several metate fragments whose provenience data was unavailable and some artifacts that had been analyzed during lab sessions before I began the project. I was not aware of these items until several weeks after the end of the '85 season when it was too late to incorporate them into the analysis. Analysis of the '85 material was done by me both at camp and at ASU after the field school had ended. Variables recorded were Excavation Unit, Level/Locus, Specimen #, Type, and Material. This same information was taken from the analysis forms for the '84 data done by M.M. Gregory and F.E. Gharrett.

Classes included in the Type category were 1) Manos (whole),

2) Mano fragments, 3) Metates (whole), 4) Metate fragments, 5) Shaft Tools, 6) Mortar, 7) Palette, 8) Axe, 9) Unknown. The '84 data included an Indeterminate class which encompassed all fragments regardless of the possibility of identification. Fragments in the '85 assemblage were identified as specific types where possible. Those that were too small to identify or were unidentifiable were placed in the Unknown class. In order to include the large Indeterminate class of the '84 data in this analysis, the actual artifacts were inspected and identified.

SPECIFIC AREAS

The following is a general description of the groundstone assemblage found in selected areas of the site. These areas are the major rooms excavated during the '85 season and the large midden area in the South Plaza. (See Frequency Charts and Surface Maps).

123E 158N

In 123E 158N, the pithouse, the primary type of groundstone artifact present is mano fragment which makes up 64.5% of the total assemblage collected. 22.7% is metate fragments. One shaft tool was found here along with two apparent palettes.

88E 84N

The assemblage from the south plaza midden consisted entirely of mano fragments (44.4%), metate fragments (16.7%), and unknown (38.9%). No whole artifacts were found in this trench - as might be expected in a midden area.

113E 124N

There is very little groundstone material from this room (Ruth's). The total assemblage consists of only nine pieces, four of which are whole manos.

117E 173N

57.9% of the assemblage in 117E 173N (David's second room) consisted of mano fragments. Metate fragments (21%), whole manos (10.5%), and unknown (10.5%) also occur. This room had the third highest count of groundstone artifacts of these selected areas. 134E 114N was first while 123E 158N was second.

130E 125N

As in 113E 124N, there was very little groundstone found here. The assemblage consists of nine pieces of which 4 (44.4%) are whole manos.

134E 114N

In terms of total overall numbers of groundstone artifacts collected, 134E 114N (David's first room), had the largest assemblage. The striking thing about this room is that nearly half of all metate fragments (24 of 58) and 75% (3 of 4) of all whole metates occur here. This is the only room where whole metates occur, and 57.5% of the assemblage consists of metate fragments and whole metates. The other 42.5% consists of whole manos and mano fragments.

TYPES

Metates and Metate Fragments

Whole metates and metate fragments were concentrated in one

room - 134E 114N. These also occur elsewhere but in much smaller numbers.

Manos and Mano Fragments

These artifacts occur primarily in 4 rooms - 134E 114N (20), 123E 158N (20), 117E 173N (13), and 129E 174N (11). There is a much more extensive distribution overall of manos than metates (see maps).

Shaft Tools

Of the 5 artifacts discovered one occurs in a room (123E 158N), while three were found in areas of burials.

Axes

There are only two axes in this data set, and both of these occur in 129E 174N, a room excavated in the 1984 season.

PROBLEMS

Factors that would affect any conclusions drawn from this study include the omission of the volume of dirt moved when comparing units, consistency between analyses (84 & 85), and accuracy of analysis.

The first was done so that an indication of where the groundstone was being found at the site overall could be shown. The units are not directly comparable, but it does give us an idea of where the groundstone is coming from and can help guide further research.

When looking at the artifacts from the 1984 season, it was noticed that a certain material was classified as sandstone by Gregory and Gharrett while that same material was classified as

granite by me. Inconsistency between the two '84 analysts was also noted. Who might be right also relates to the final factor - accuracy. It must be admitted that those doing the analysis were relatively inexperienced in identifying raw material and perhaps type of artifact.

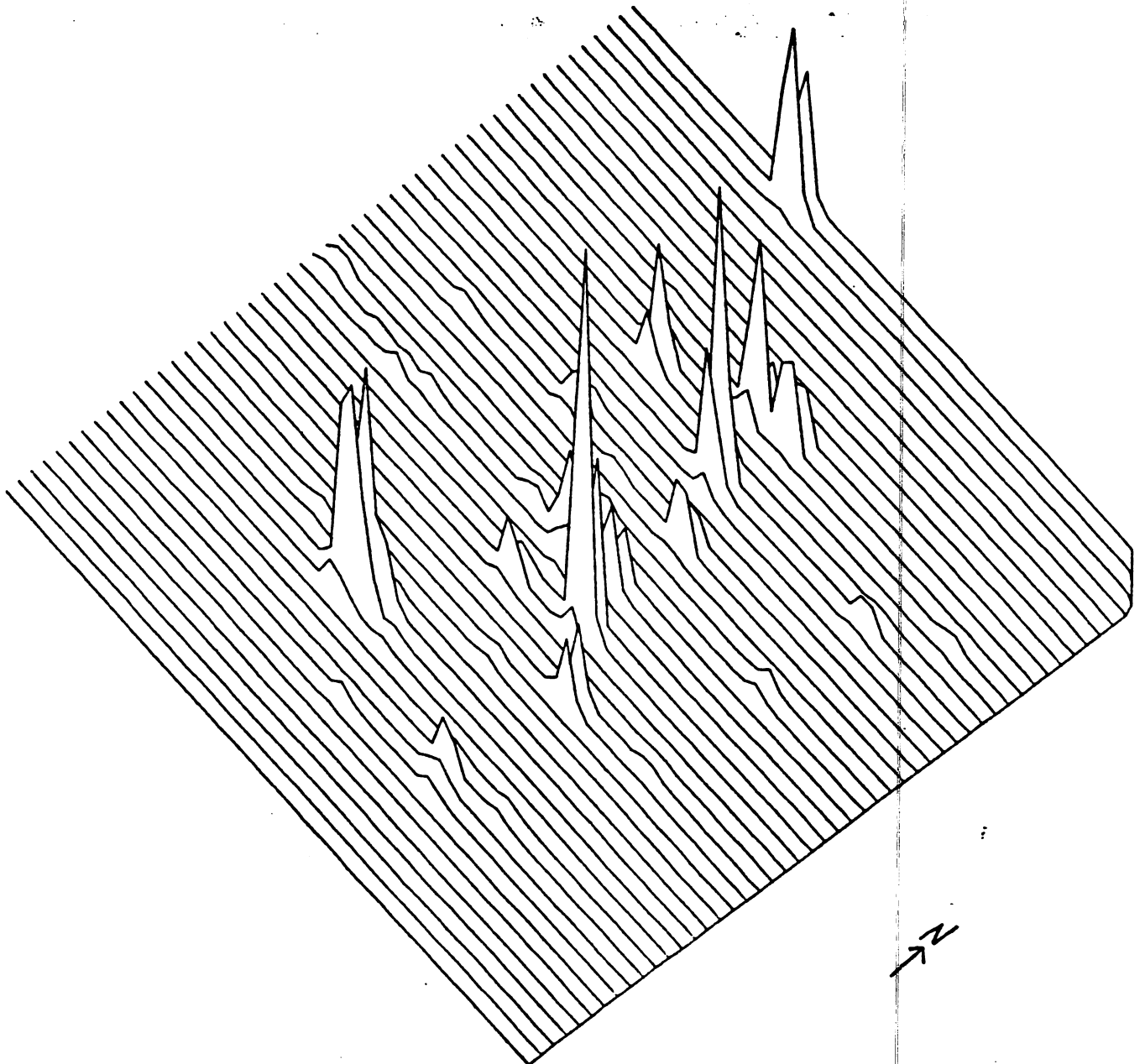
CONCLUSIONS

This has been only a preliminary descriptive analysis of the distribution of groundstone artifacts at Shoofly Village. Any interpretive conclusions would be premature. More detail and better control of the variables are required. However, it can be noted that one central core room, 134E 114N, was distinctive for the high number of groundstone artifacts excavated there and for the high incidence of metates. It can also be noted that a high proportion of the material occurred in rooms, but it must be kept in mind that more area was excavated in the rooms than in most of the other units.

[Faint handwritten notes and signatures at the bottom of the page, including a signature that appears to read "Stephen B. ..."]

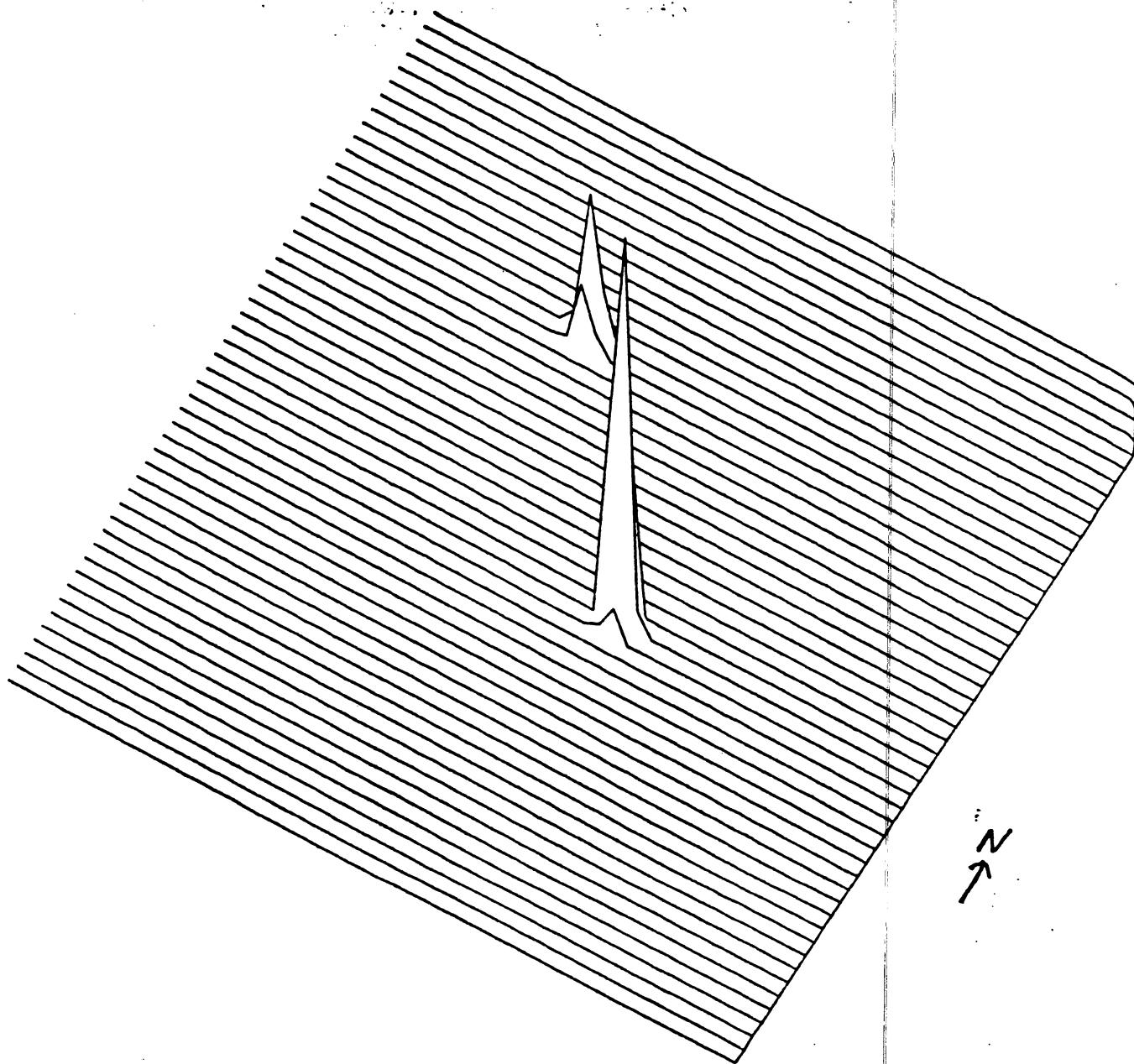
SURFACE MAPS

GROUNDSTONE DISTRIBUTION



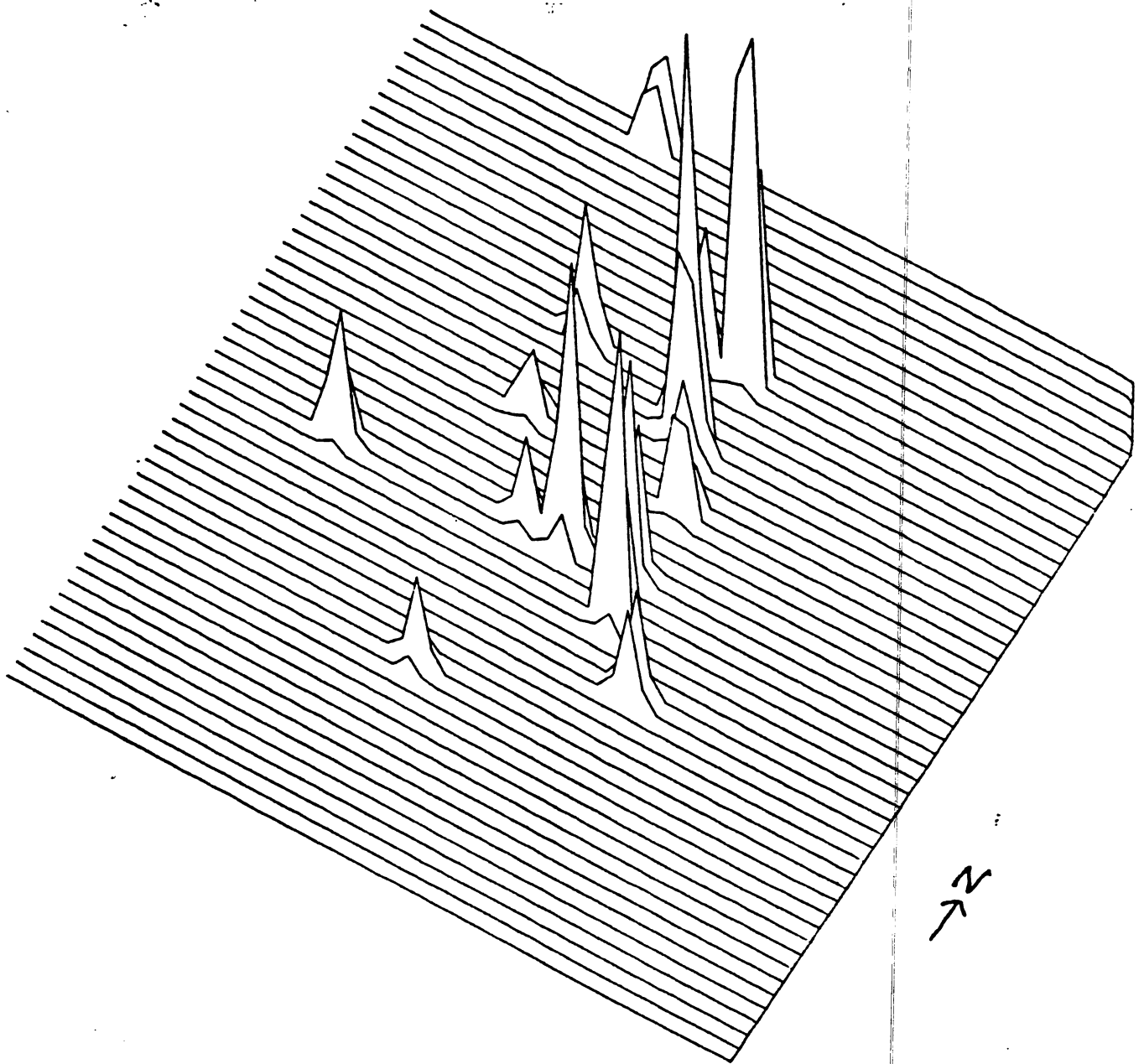
SHOOFLY VILLAGE 84 & 85

WHOLE METATE DISTRIBUTION



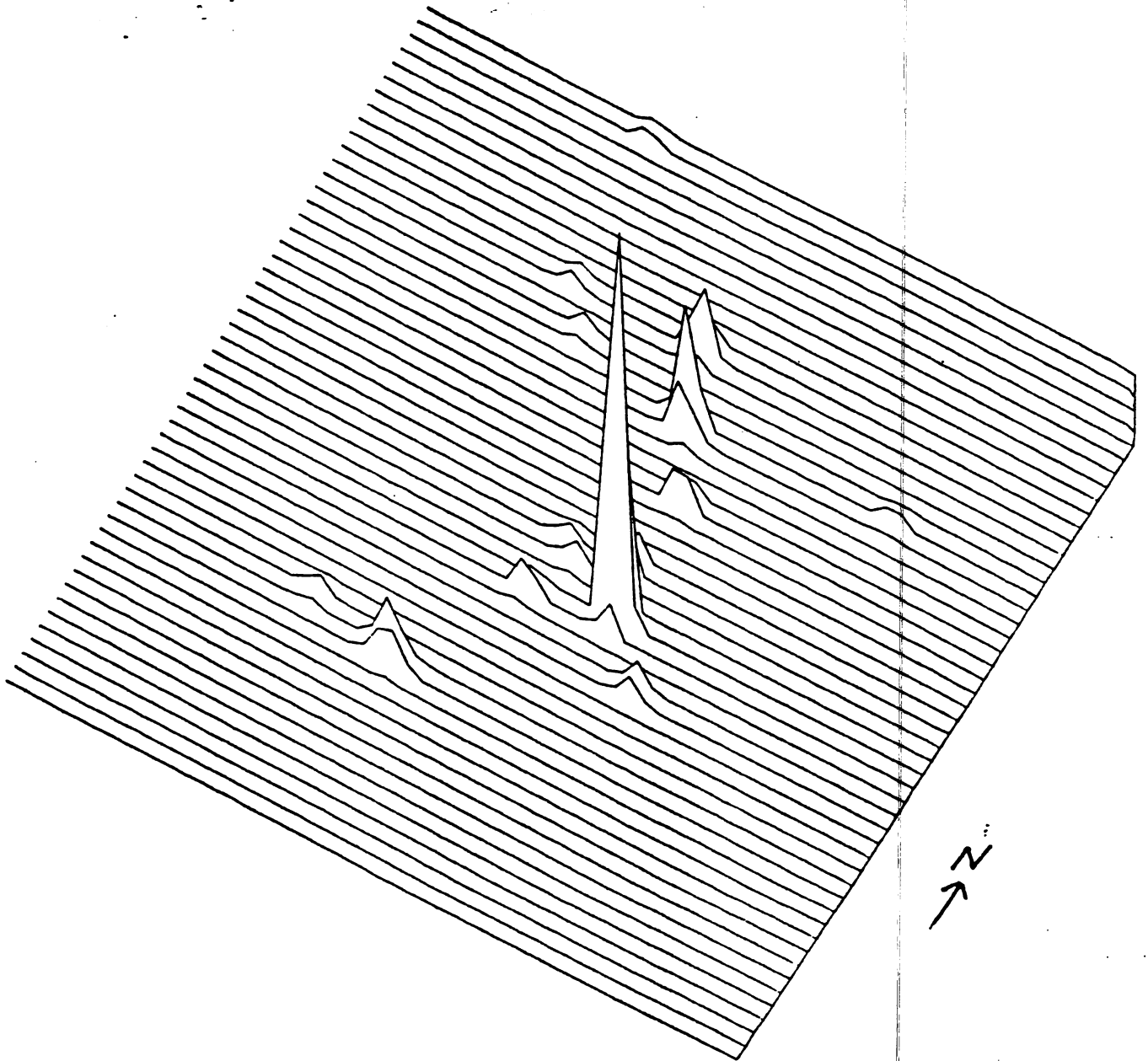
SHOOFLY VILLAGE 84 & 85

WHOLE MANO DISTRIBUTION



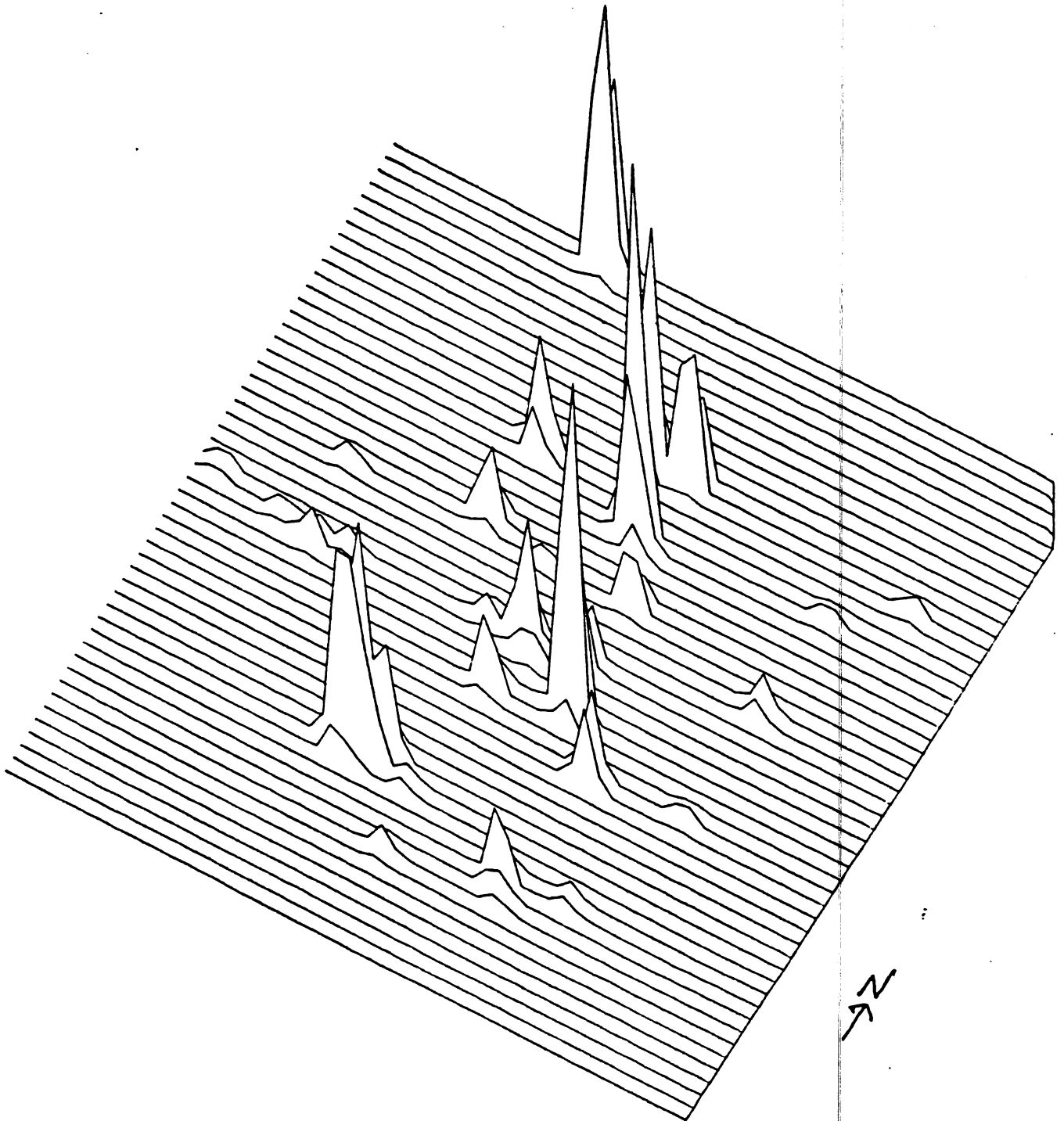
SHOOFLY VILLAGE 84 & 85

METATE AND METATE FRAGMENT DISTRIBUTION



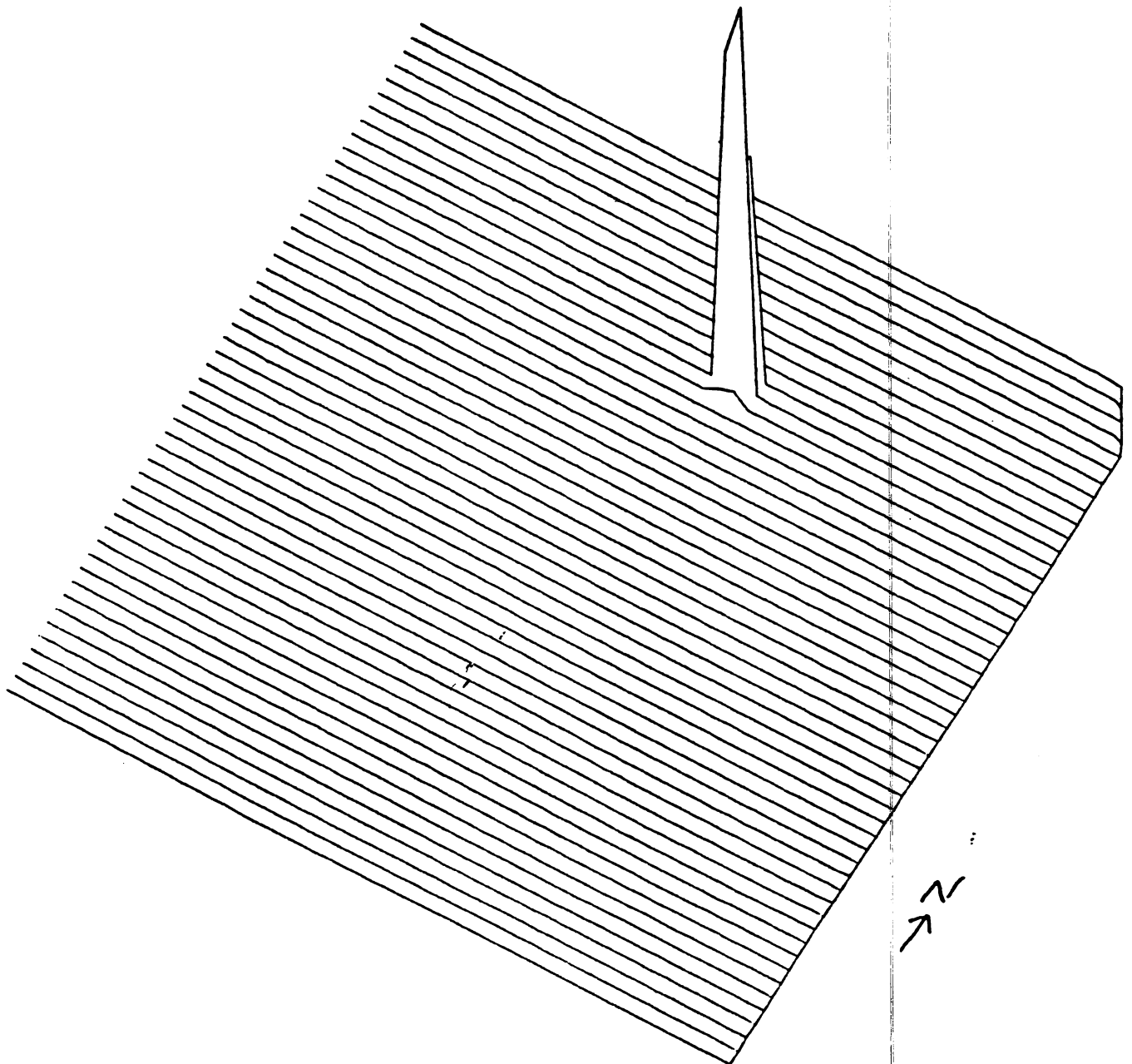
SHOOFLY VILLAGE 84 & 85

MANO AND MANO FRAGMENT DISTRIBUTION



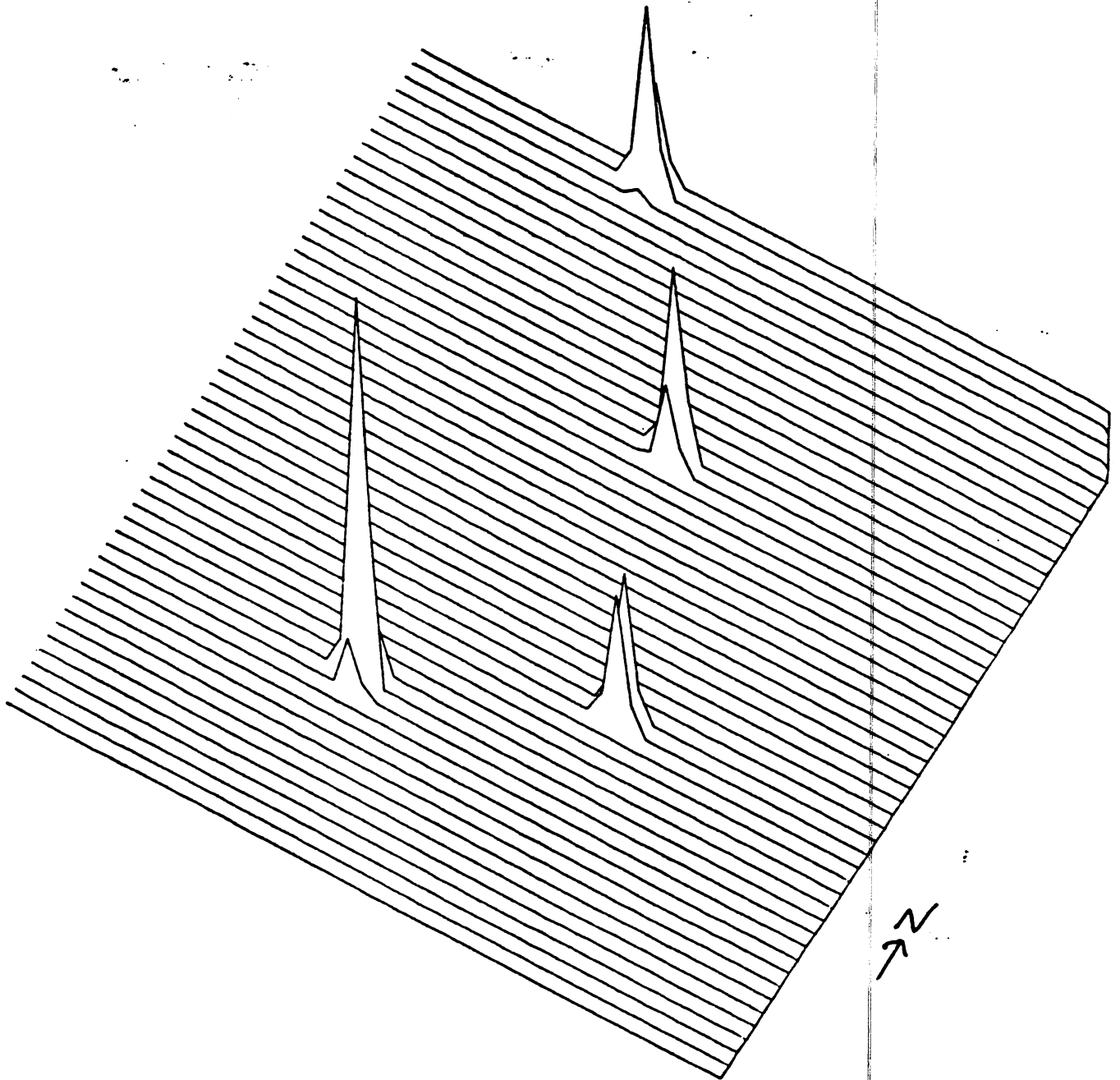
SHOOFLY VILLAGE 84 & 85

AXE DISTRIBUTION



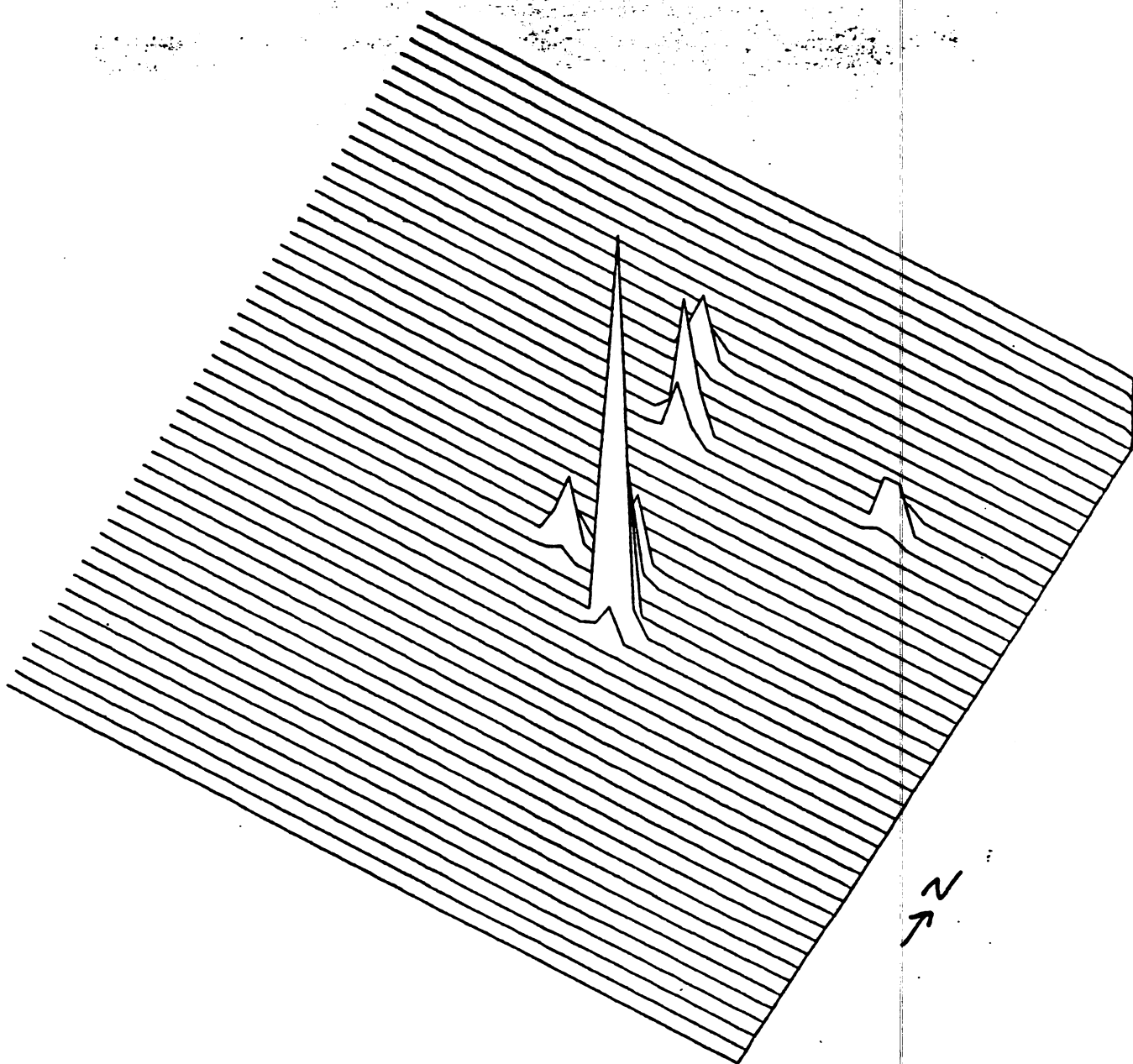
SHOOFLY VILLAGE 84 & 85

SHAFT TOOL DISTRIBUTION



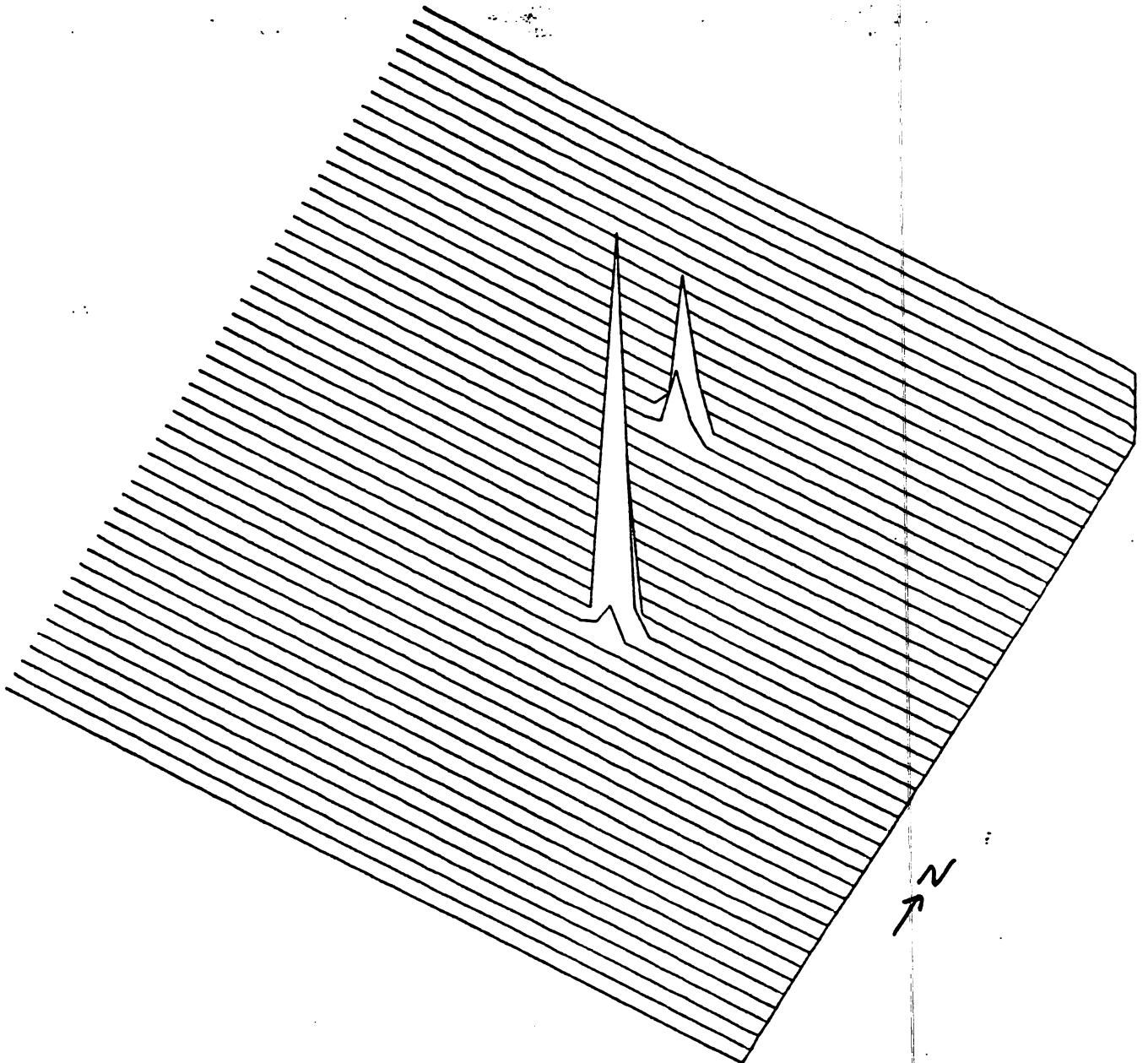
SHOOFLY VILLAGE 84 & 85

GOUNDSTONE FOUND IN WALL CLEARING



SHOOFLY VILLAGE 84 & 85

METATES FOUND IN WALL CLEARING



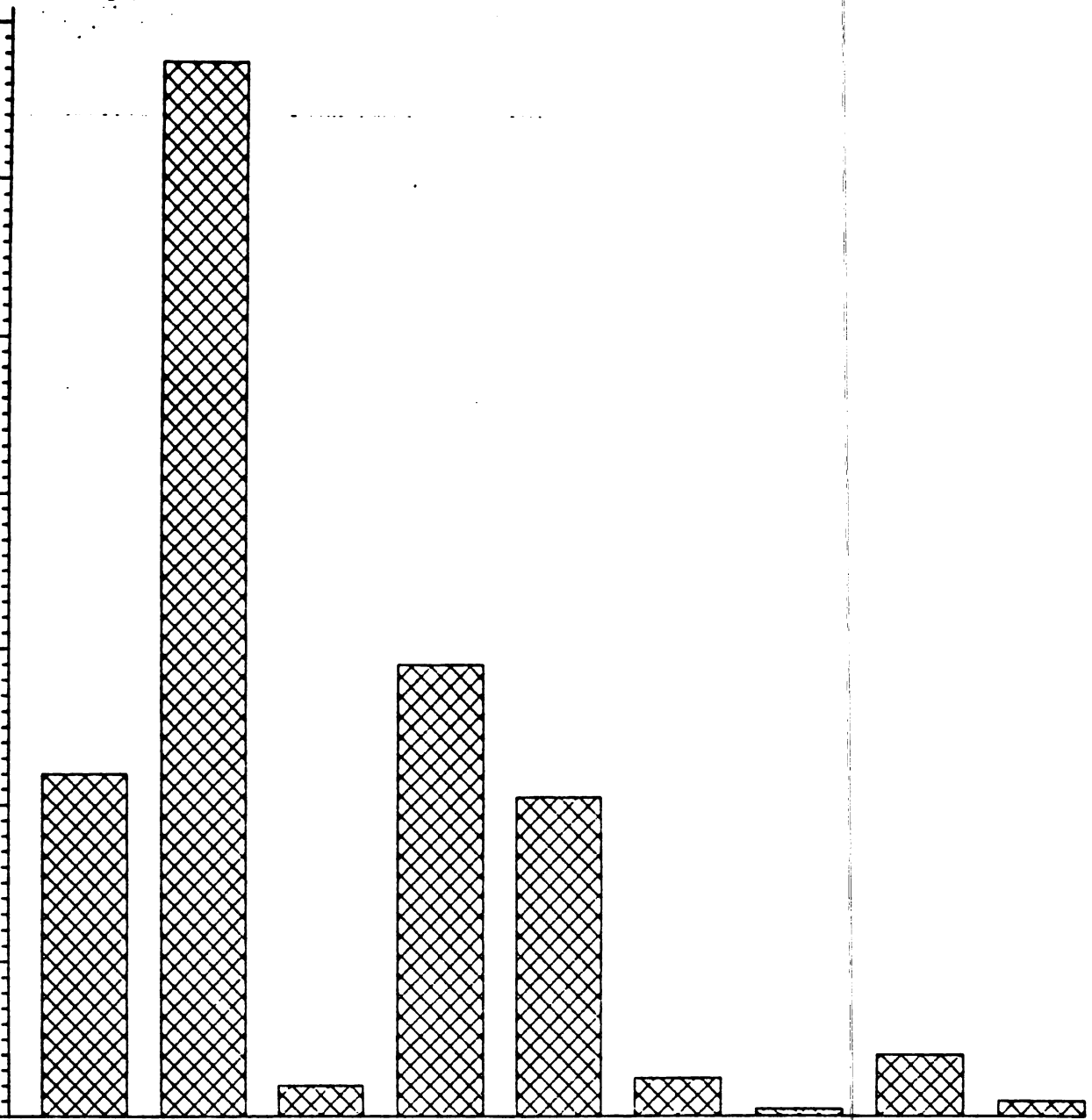
SHOOFLY VILLAGE 84 & 85

FREQUENCY CHARTS

GROUNDSTONE FREQUENCY BY TYPE

FREQUENCY

140
120
100
80
60
40
20
0



MANO
MANO FRAG
METATE
METATE FRAG
UNKNOWN
SHAFT TOOL
MORTAR
PALETTE
AXE

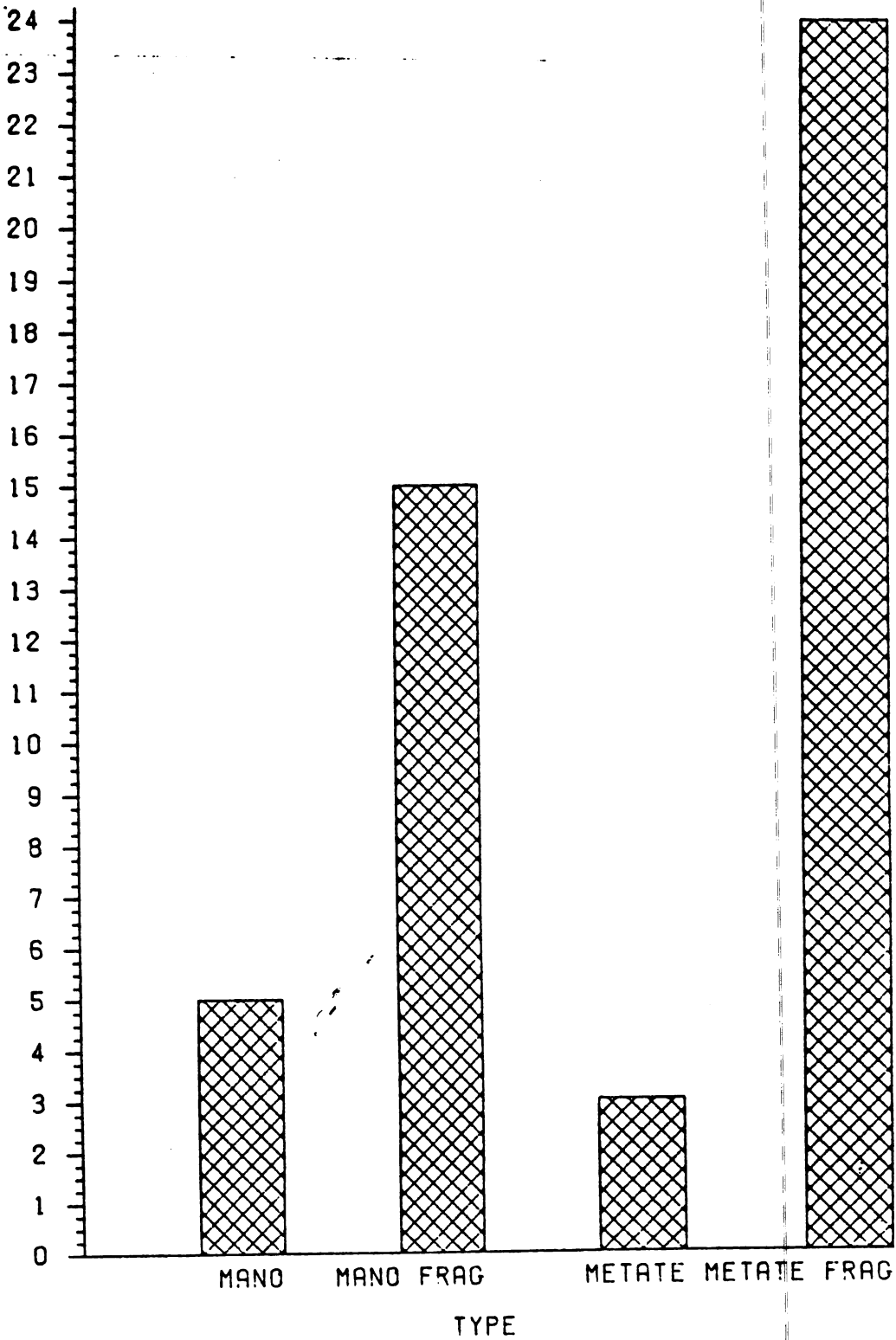
TYPE

SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 134E 114N

DAVIDS ROOM

FREQUENCY

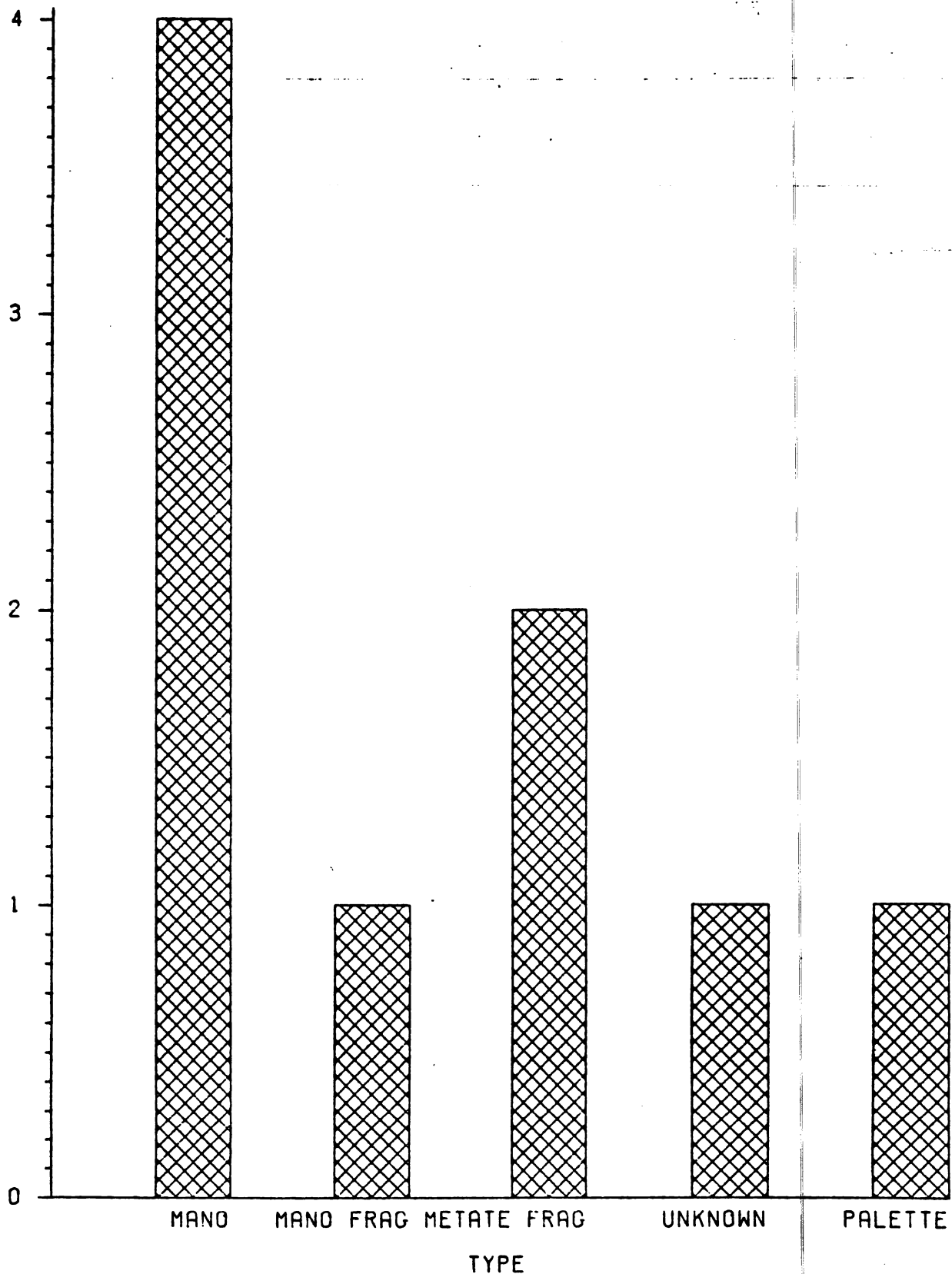


SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 130E 125N

OWENS ROOM

FREQUENCY

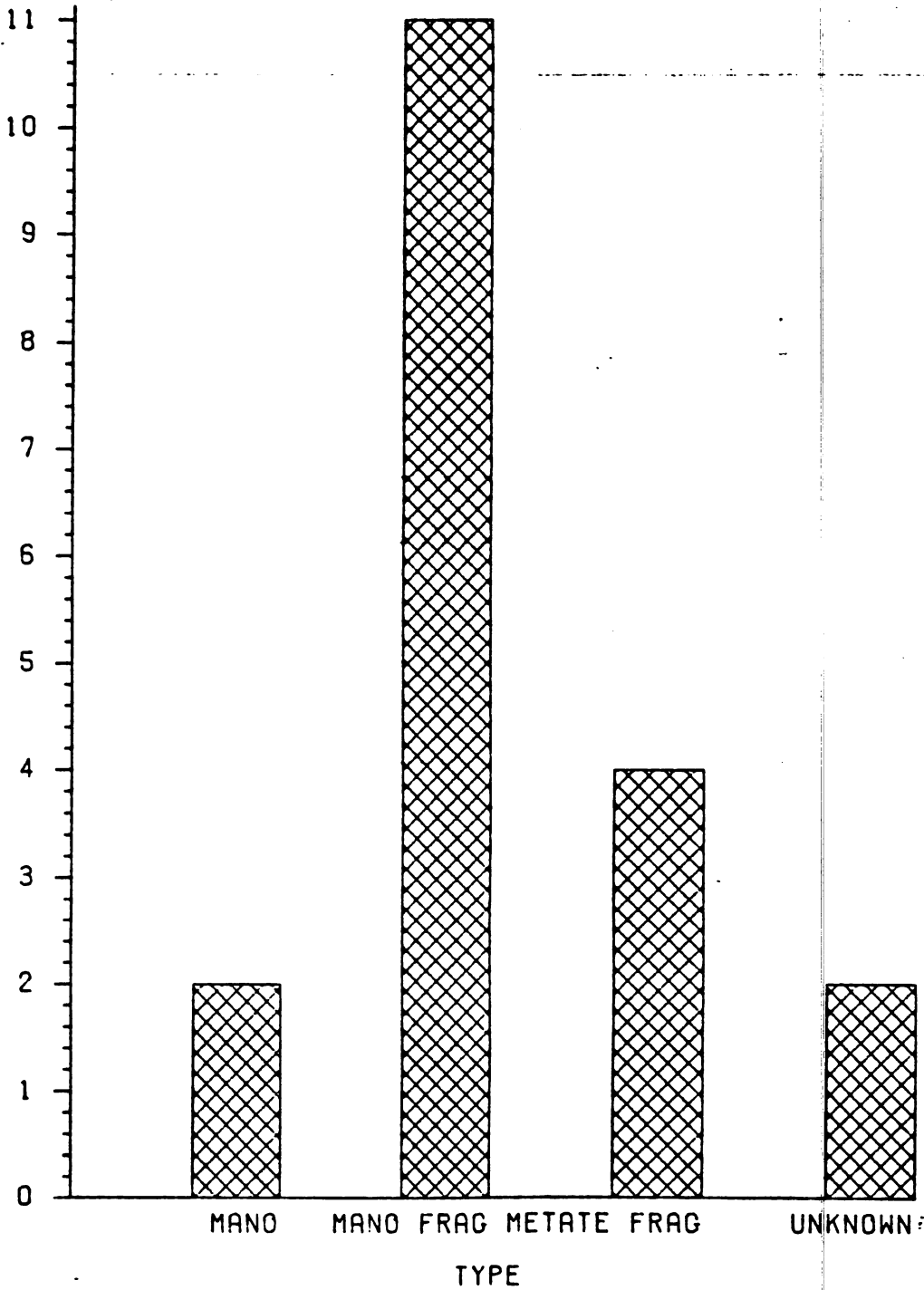


SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 117E 173N

DAVIDS SECOND ROOM

FREQUENCY



SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 134E 114N

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|------------|-----------|----------|---------|-------------|
| WAND | 1 | 1 | 10.538 | 10.538 |
| WAND FLAG | 1 | 2 | 9.715 | 20.253 |
| METAL | 2 | 4 | 38.747 | 58.999 |
| METAL FLAG | 2 | 6 | 51.000 | 100.000 |

GROUNDSTONE IN 130E 115N

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|------------|-----------|----------|---------|-------------|
| WAND | 1 | 1 | 44.444 | 44.444 |
| WAND FLAG | 1 | 2 | 44.444 | 88.889 |
| METAL | 1 | 3 | 22.222 | 111.111 |
| METAL FLAG | 1 | 4 | 11.111 | 122.222 |
| UNKN | 1 | 5 | 11.111 | 133.333 |

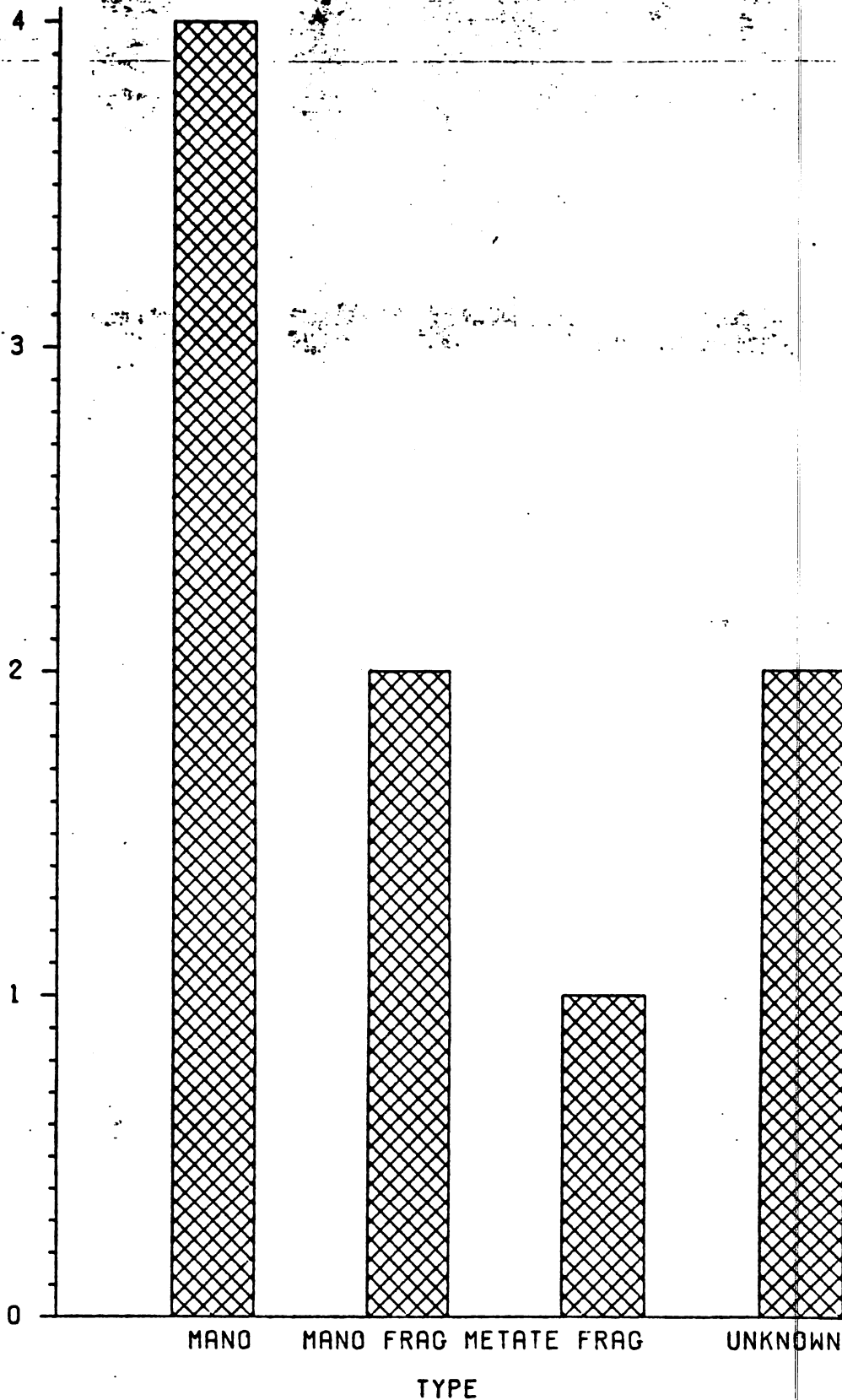
GROUNDSTONE IN 117E 120N

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|------------|-----------|----------|---------|-------------|
| WAND | 1 | 1 | 10.526 | 10.526 |
| WAND FLAG | 1 | 2 | 9.790 | 20.316 |
| METAL | 1 | 3 | 9.790 | 30.106 |
| METAL FLAG | 1 | 4 | 9.790 | 39.896 |
| UNKN | 1 | 5 | 10.526 | 50.422 |

GROUNDSTONE IN 113E 124N

RUTHS ROOM

FREQUENCY

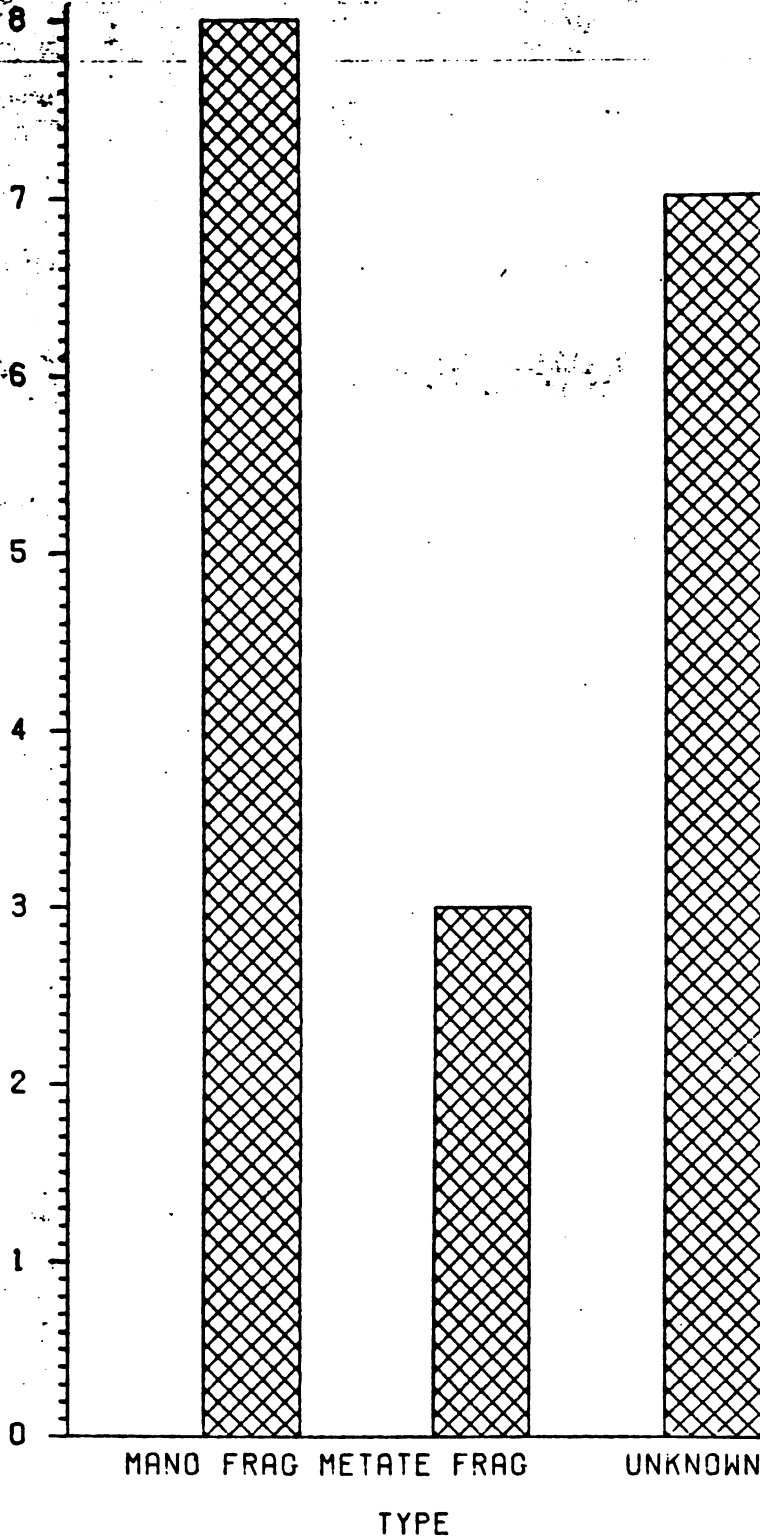


SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 88E 84N

SOUTH PLAZA MIDDEN

FREQUENCY

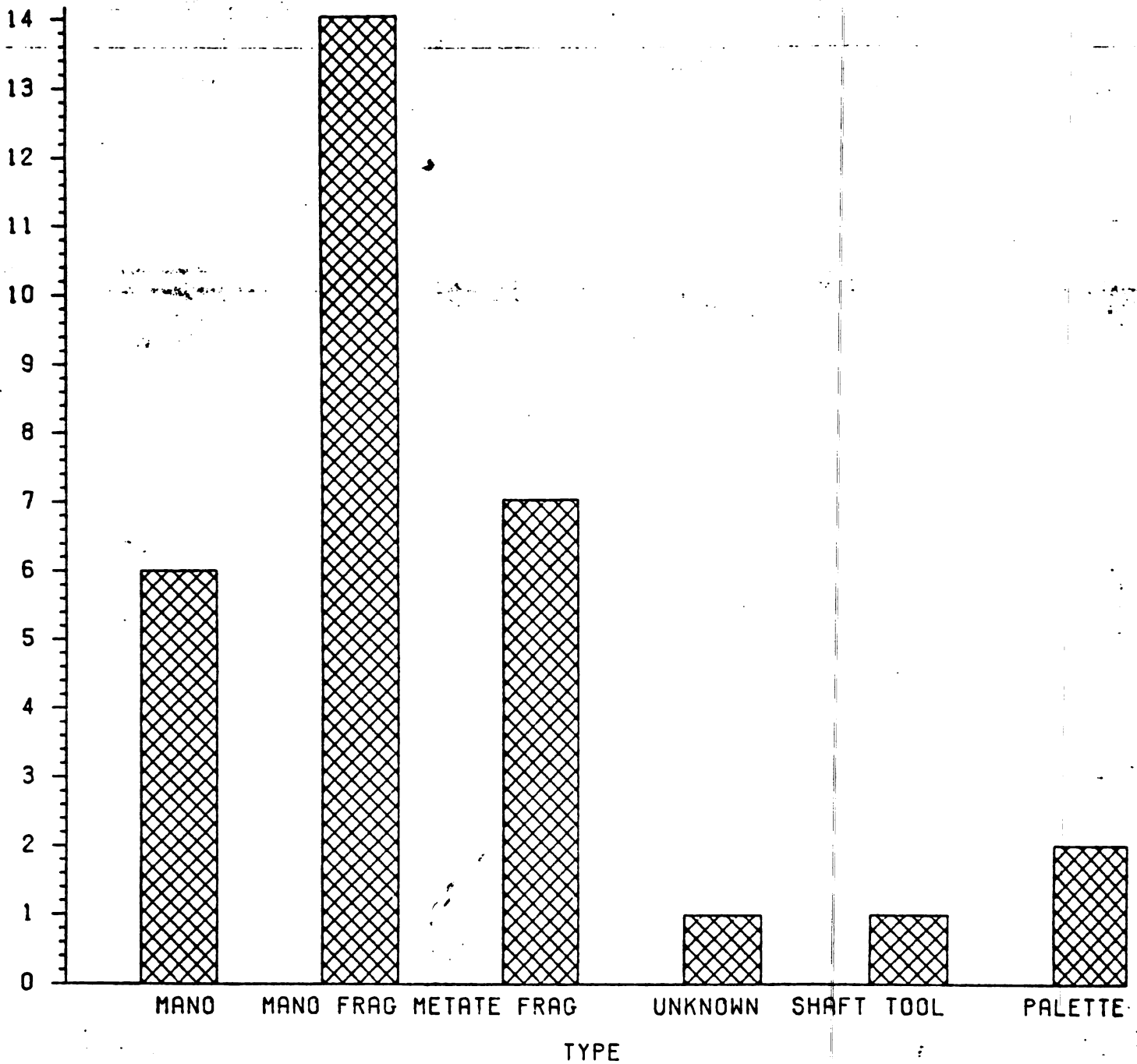


SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 123E 158N

THE PITHOUSE

FREQUENCY



SHOOFLY VILLAGE 84 & 85

GROUNDSTONE IN 113E 124N

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|-------------|-----------|----------|---------|-------------|
| MANC | 4 | 4 | 44.444 | 44.444 |
| MANC FRAG | 2 | 6 | 22.222 | 66.667 |
| METATE FRAG | 1 | 7 | 11.111 | 77.778 |
| UNKNOWN | 2 | 9 | 22.222 | 100.000 |

GROUNDSTONE IN 88E 84N

SAS

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|-------------|-----------|----------|---------|-------------|
| MANC FRAG | 8 | 8 | 44.444 | 44.444 |
| METATE FRAG | 1 | 9 | 16.667 | 61.111 |
| UNKNOWN | 7 | 16 | 38.889 | 100.000 |

GROUNDSTONE IN 123E 158N

SAS

| TYPE | FREQUENCY | CUM FREQ | PERCENT | CUM PERCENT |
|-------------|-----------|----------|---------|-------------|
| MANC | 1 | 1 | 19.608 | 19.608 |
| MANC FRAG | 1 | 2 | 19.608 | 39.216 |
| METATE FRAG | 1 | 3 | 19.608 | 58.824 |
| UNKNOWN | 1 | 4 | 19.608 | 78.432 |
| UNKNOWN | 1 | 5 | 19.608 | 98.040 |
| UNKNOWN | 1 | 6 | 19.608 | 100.000 |

GROUNDSTONE FREQUENCY BY TYPE & MATERIAL

FREQUENCY

140
120
100
80
60
40
20
0



LEGEND: MATER

 BASALT
 VES BASALT
 CONGLOMERATE

 GRANITE
 SANDSTONE

SHOOFLY VILLAGE 84 & 85

TABLE OF TYPE BY WATER

| TYPE | WATER | | GRANITE | VES BASA LT | SANDSTONE | CONGLOM RATE | TOTAL |
|--------------|---------|---------|---------|-------------|-----------|--------------|--------|
| | PERCENT | COL PCT | | | | | |
| MNC | 21.20 | 11.90 | 23.00 | 13.93 | 10.33 | 0.00 | 14.77 |
| | 13.67 | 11.76 | 13.00 | 11.76 | 11.90 | 100.00 | |
| MNC 0174 | 27.77 | 31.00 | 13.00 | 10.72 | 32.22 | 0.00 | 45.55 |
| | 27.77 | 31.00 | 13.00 | 10.72 | 32.22 | 0.00 | |
| GRANITE | 20.00 | 25.00 | 5.00 | 2.00 | 0.00 | 0.00 | 1.34 |
| | 20.00 | 25.00 | 5.00 | 2.00 | 0.00 | 0.00 | |
| GRANITE 0040 | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 58 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 19.46 |
| GRANITE 1000 | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 13.72 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | |
| GRANITE 1000 | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 1.00 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | |
| GRANITE | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 0.34 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | |
| GRANITE | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 2.00 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | |
| GRANITE | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | 0.67 |
| | 20.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.00 | |
| TOTAL | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 0.00 | 100.00 |