Figure 1.1

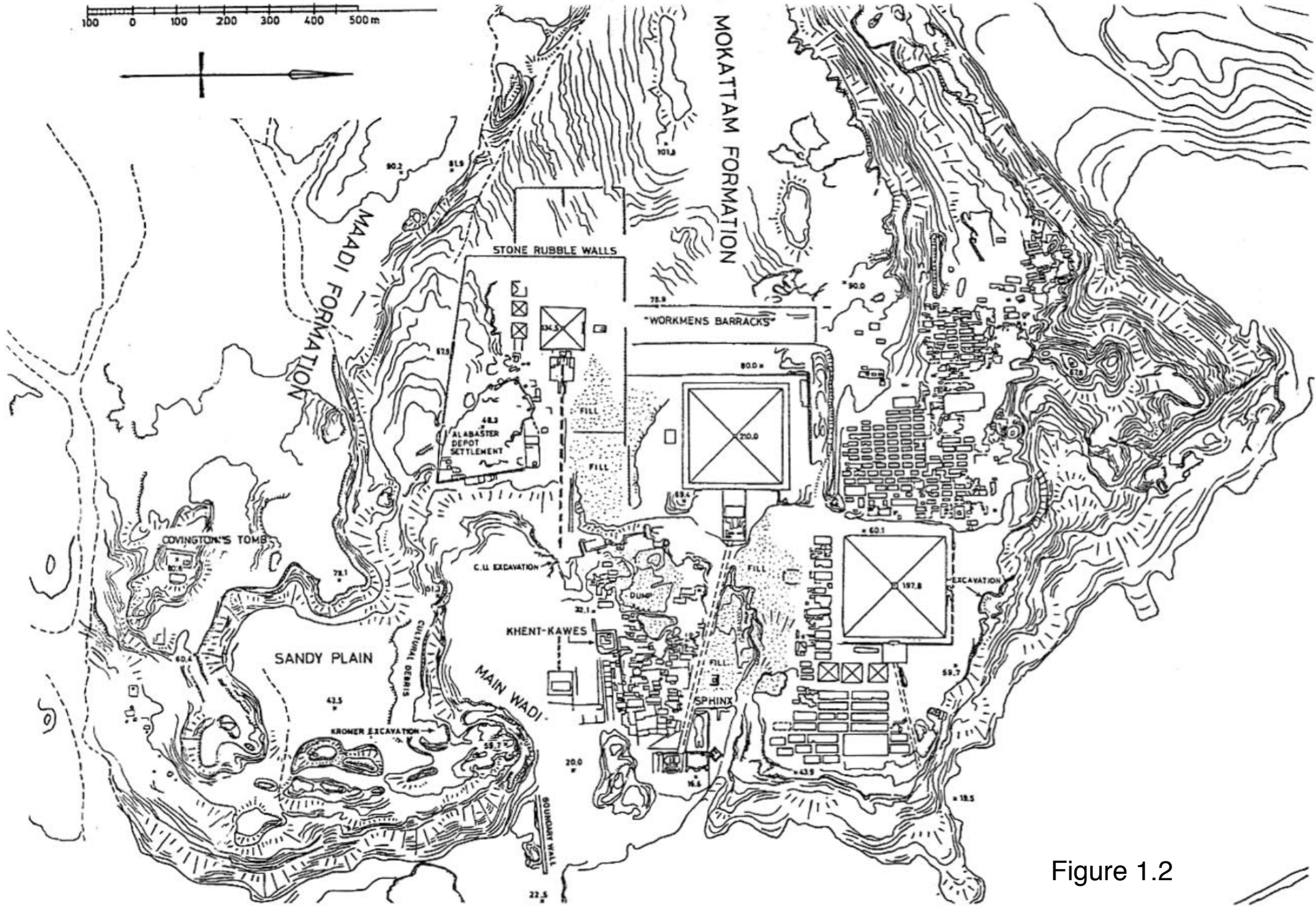

100 0 100 200 300 400 500 m
MOKATTAM FORMATION
MAADI FORMATION
STONE RUBBLE WALLS
WORKMENS BARRACKS
ALABASTER DEPOT SETTLEMENT
FILL
COVINGTON'S TOMB
C.U. EXCAVATION
DUMP
EXCAVATION
KHENT-KAWES
SANDY PLAIN
CHIPPING DEBRIS
MAIN WADI
SPHINX
KROMER EXCAVATION
BOUNDARY WALL

Figure 1.2

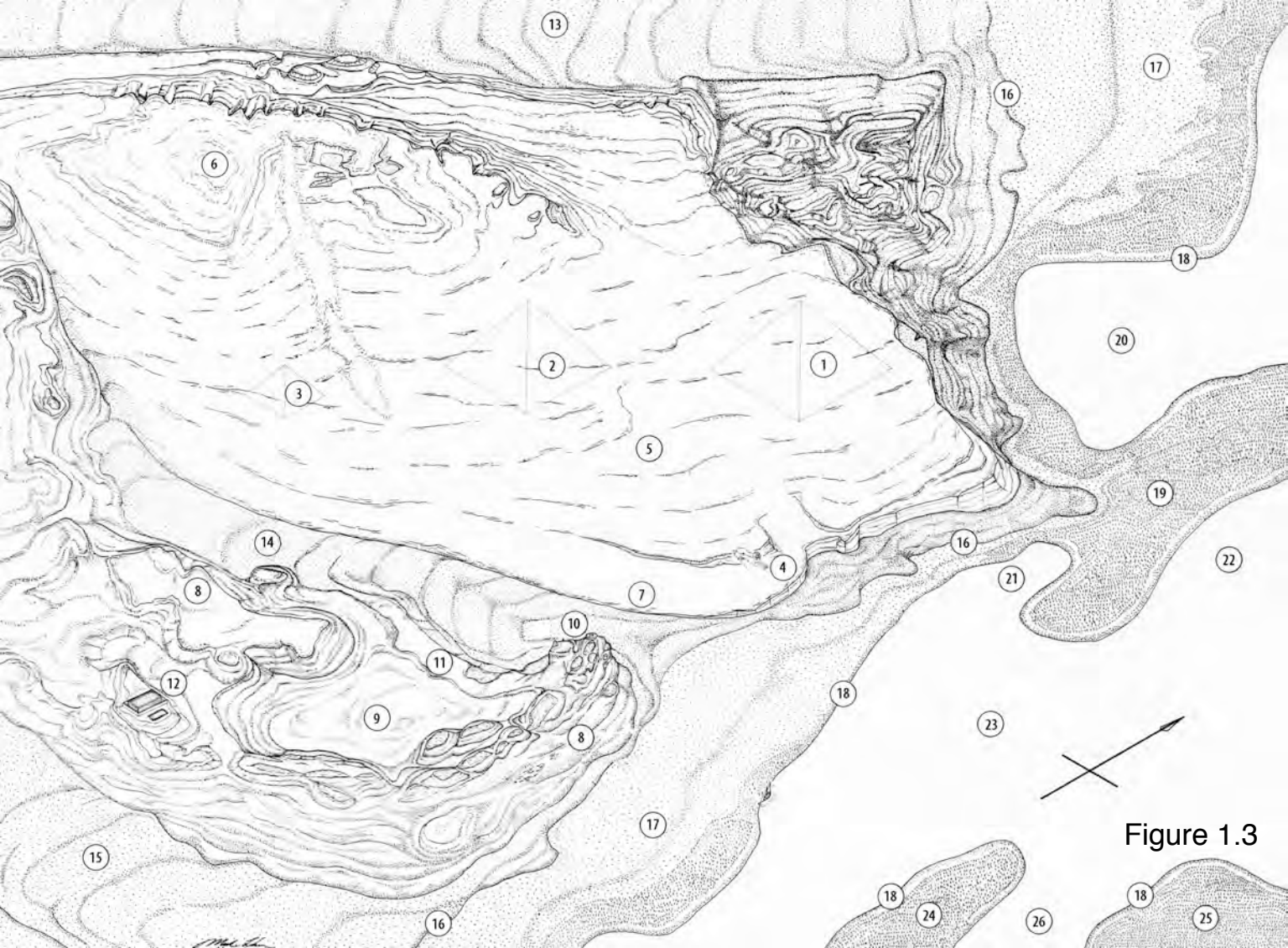

13
17
16
6
18
20
2
1
3
5
19
14
16
22
4
21
8
7
10
11
12
18
9
23
8
17
15
18
18
16
24
26
25

Figure 1.3

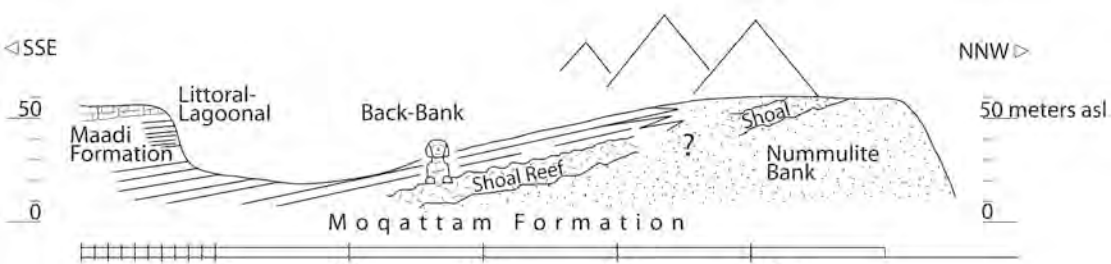

SSE
NNW
50
0
Littoral-
Lagoonal
Maadi
Formation
Back-Bank
Shoal Reef
?
Shoal
Nummulite
Bank
50 meters asl
0
Moqattam Formation
0
200
400
600
800
1000 m

Figure 1.4

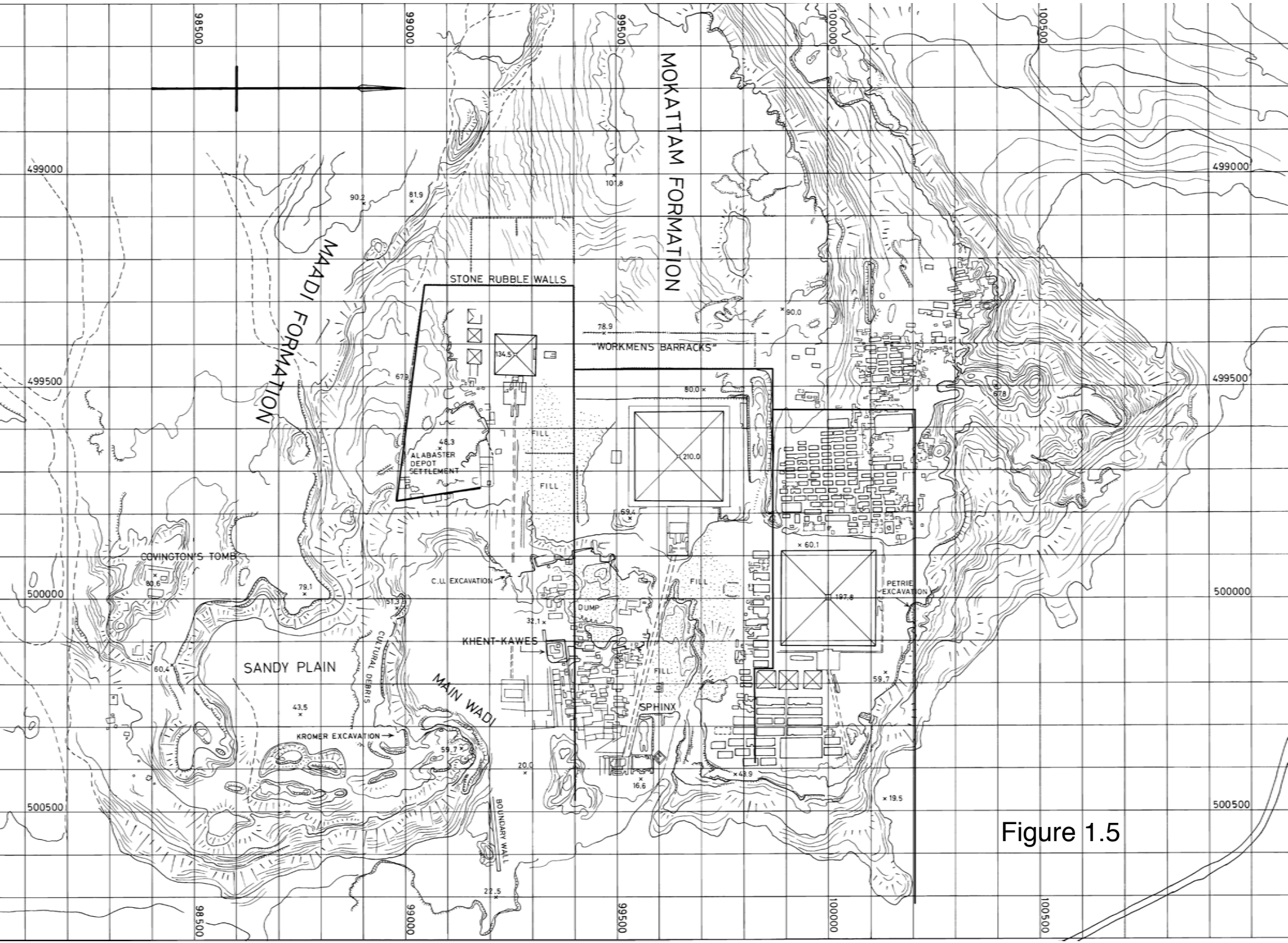

MOKATTAM FORMATION
MAADI FORMATION
STONE RUBBLE WALLS
"WORKMEN'S BARRACKS"
ALABASTER DEPOT SETTLEMENT
FILL
DUMP
COVINGTON'S TOMB
C.U. EXCAVATION
KHENT-KAWES
SANDY PLAIN
CULTURAL DEBRIS
MAIN WADI
KROMER EXCAVATION
SPHINX
PETRIE EXCAVATION
BOUNDARY WALL
499000
499500
500000
500500
98500
99000
99500
100000
100500

Figure 1.5

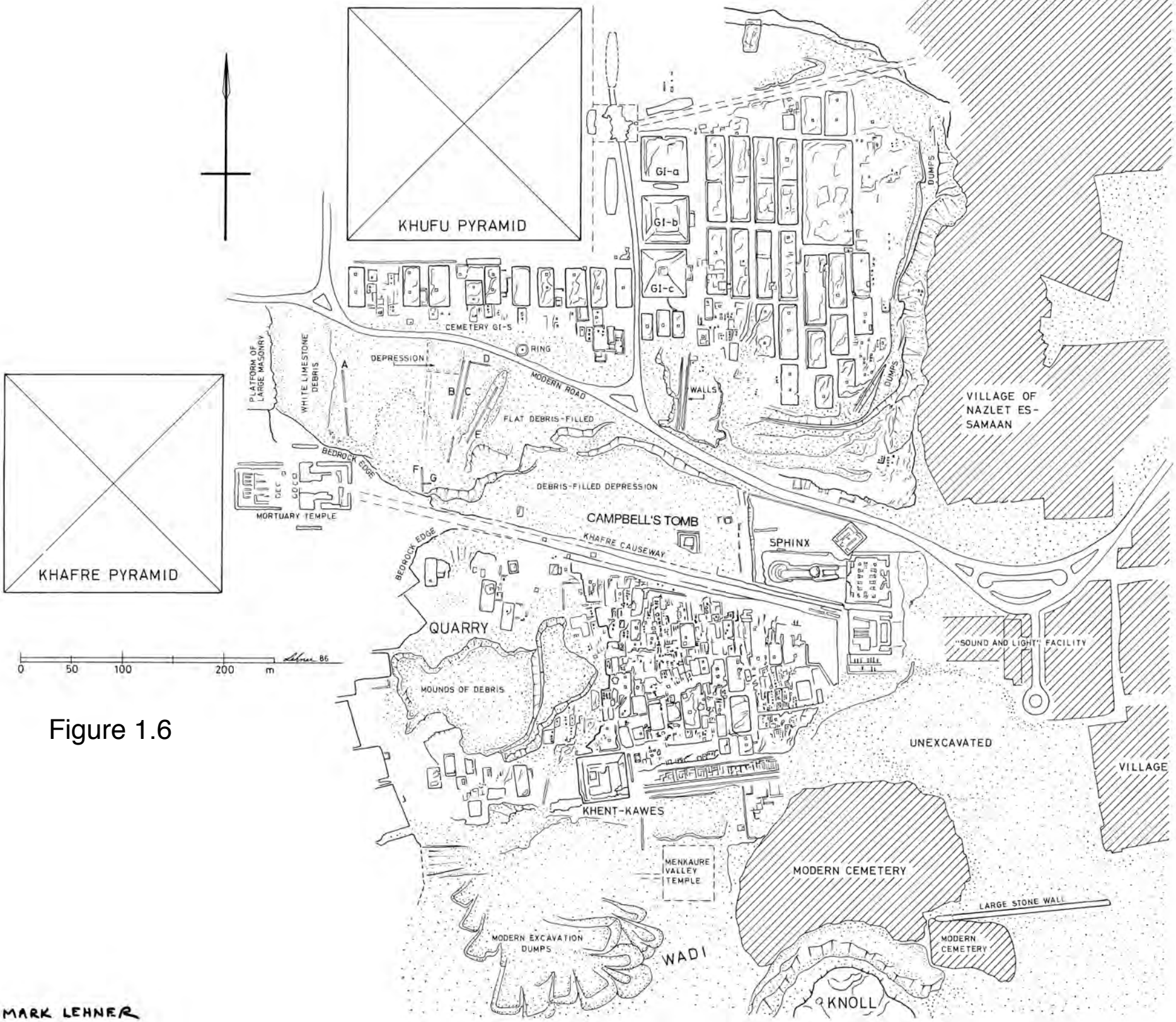


Figure 1.6

© 1990 MARK LEHNER

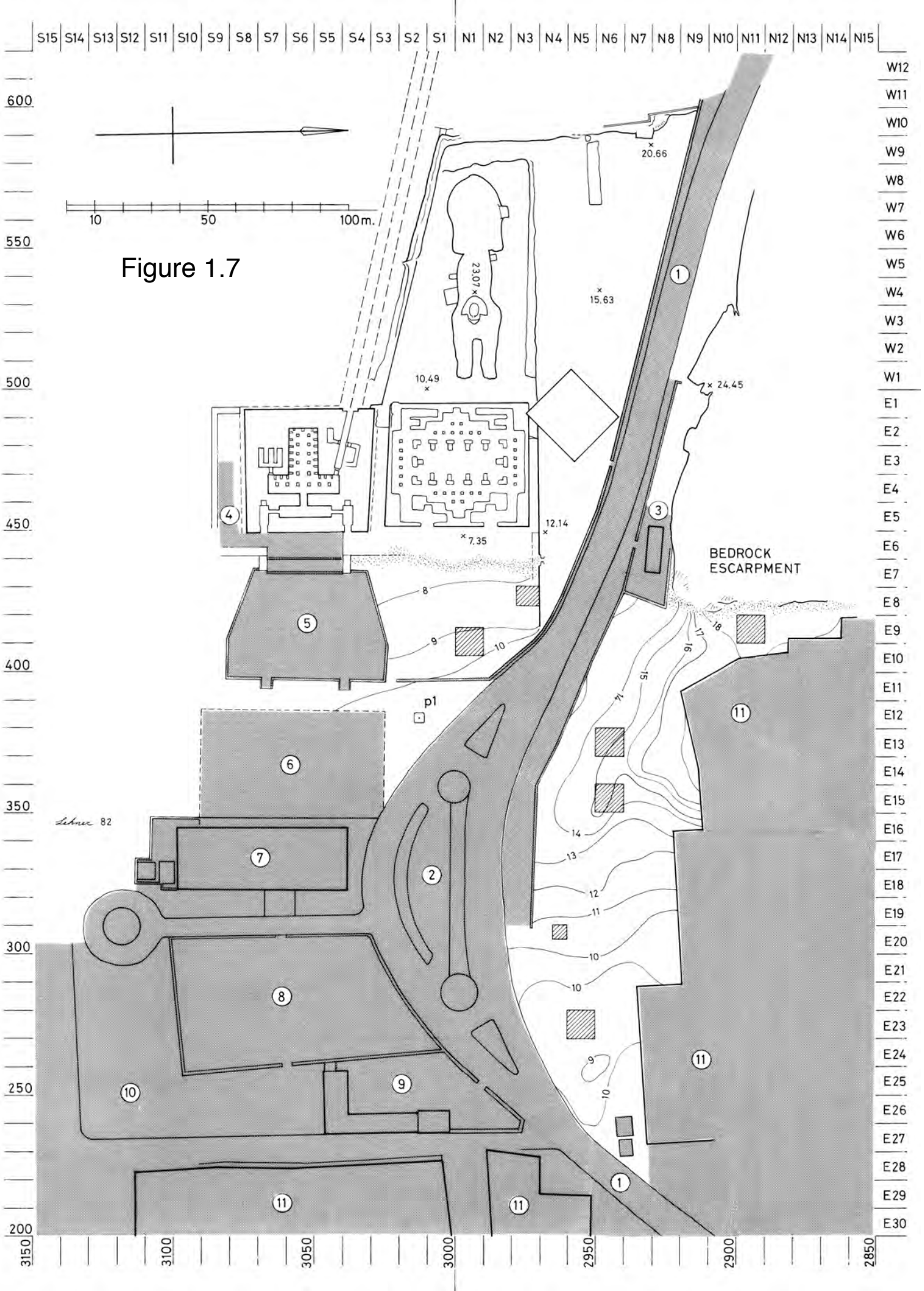

S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 N1 N2 N3 N4 N5 N6 N7 N8 N9 N10 N11 N12 N13 N14 N15
W12 W11 W10 W9 W8 W7 W6 W5 W4 W3 W2 W1 E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20 E21 E22 E23 E24 E25 E26 E27 E28 E29 E30
600 550 500 450 400 350 300 250 200
3150 3100 3050 3000 2950 2900 2850
10 50 100 m.
20.66
23.07
15.63
10.49
24.45
12.14
7.35
BEDROCK ESCARPMENT
p1
Lehner 82
1 2 3 4 5 6 7 8 9 10 11

Figure 1.7

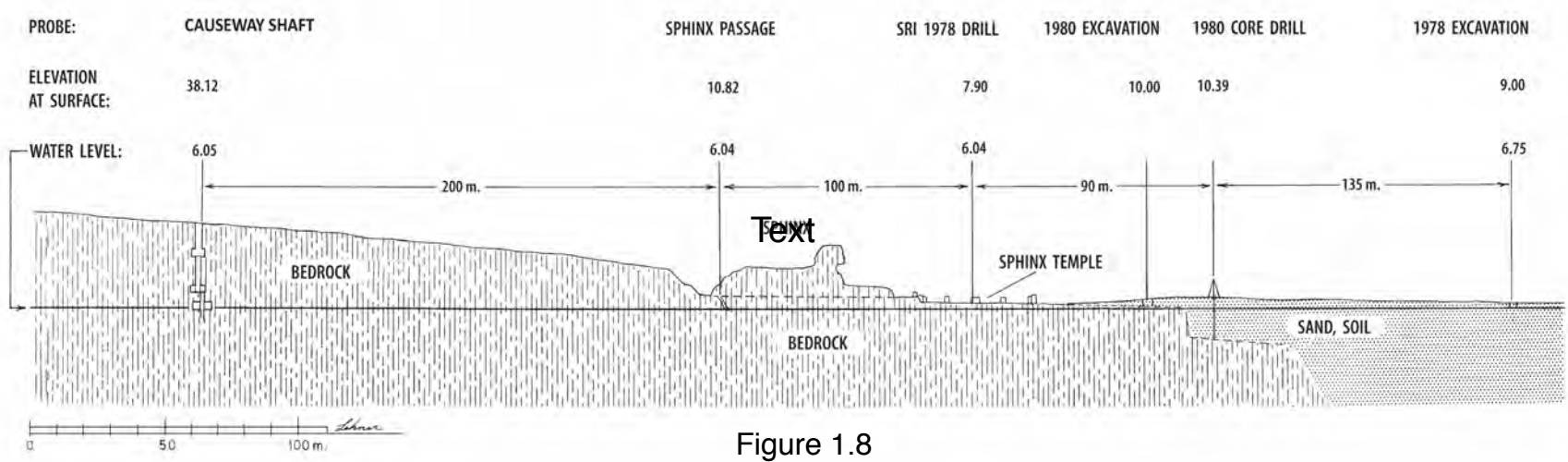

PROBE:
CAUSEWAY SHAFT
SPHINX PASSAGE
SRI 1978 DRILL
1980 EXCAVATION
1980 CORE DRILL
1978 EXCAVATION
ELEVATION AT SURFACE:
38.12
10.82
7.90
10.00
10.39
9.00
WATER LEVEL:
6.05
6.04
6.04
6.75
200 m.
100 m.
90 m.
135 m.
BEDROCK
SPHINX TEMPLE
BEDROCK
SAND, SOIL
0
50
100 m.

Figure 1.8

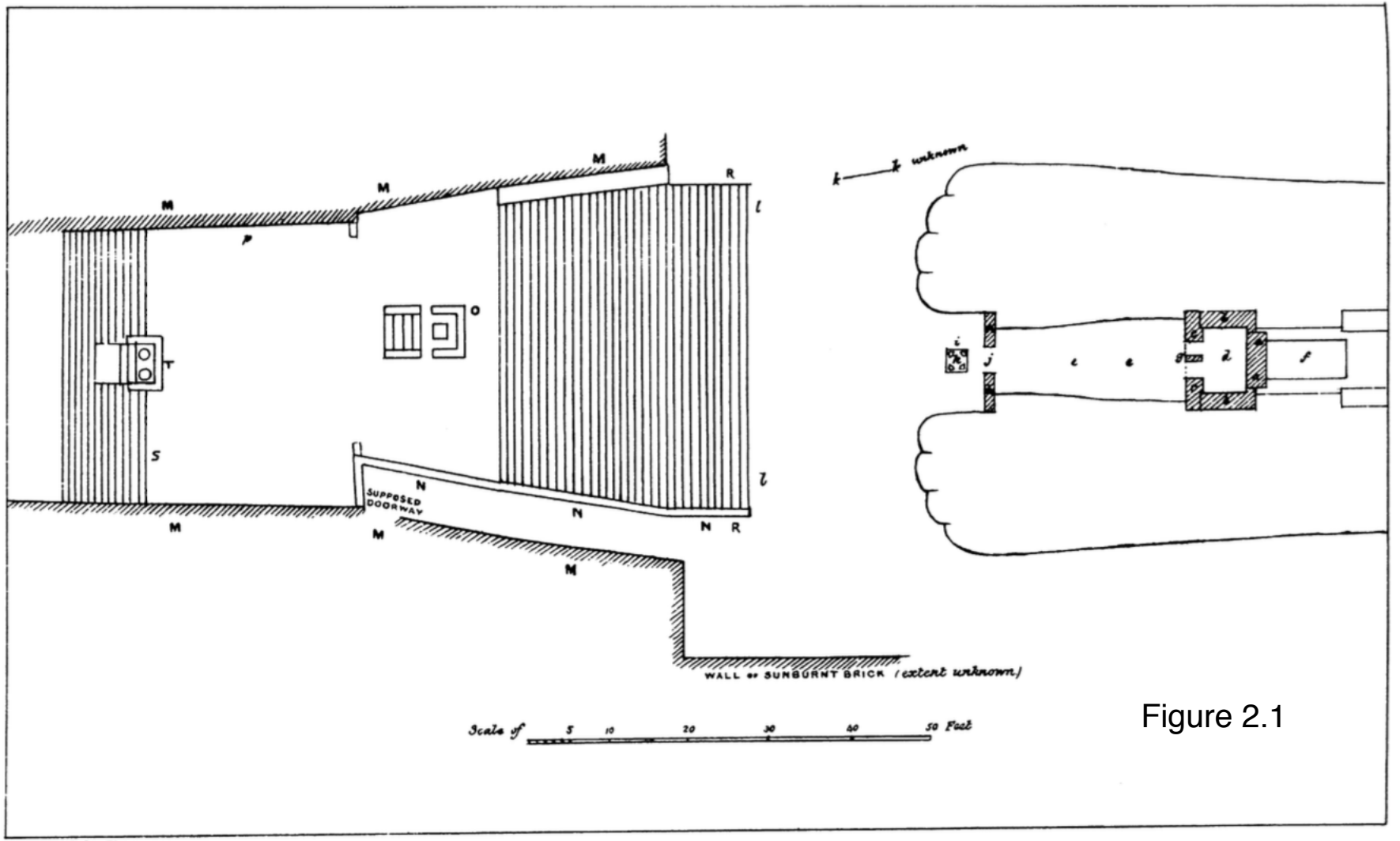


Figure 2.1

Measured by H. Salt

GROUND PLAN OF THE TEMPLE AND STEPS IN FRONT OF THE SPHINX.

PLAN

OF

DISCOVERIES BY CAPTN CAVIGLIA.

BEHIND AND IN THE NEIGHOURHOOD OF

THE GREAT SPHINX.

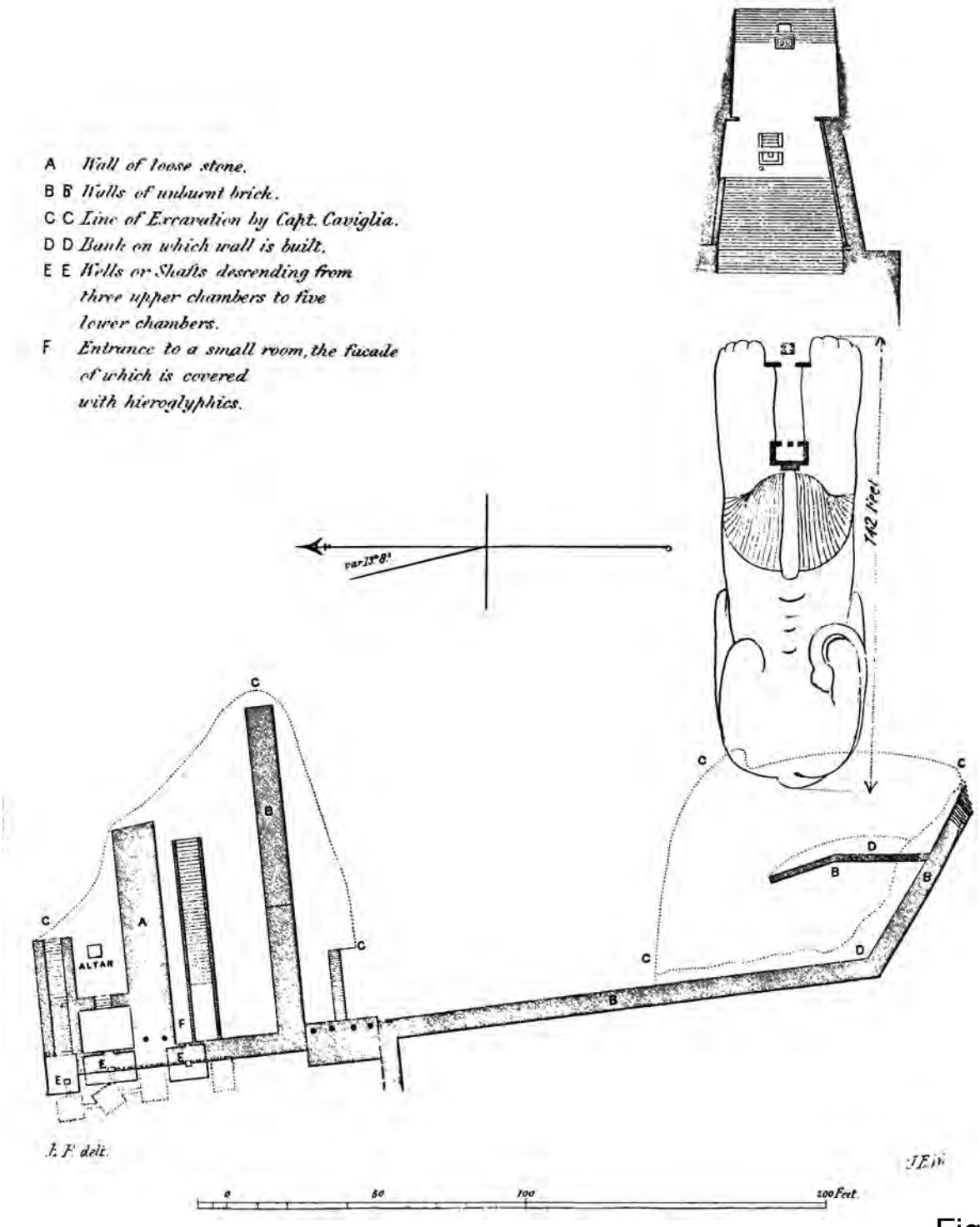


Figure 2.2

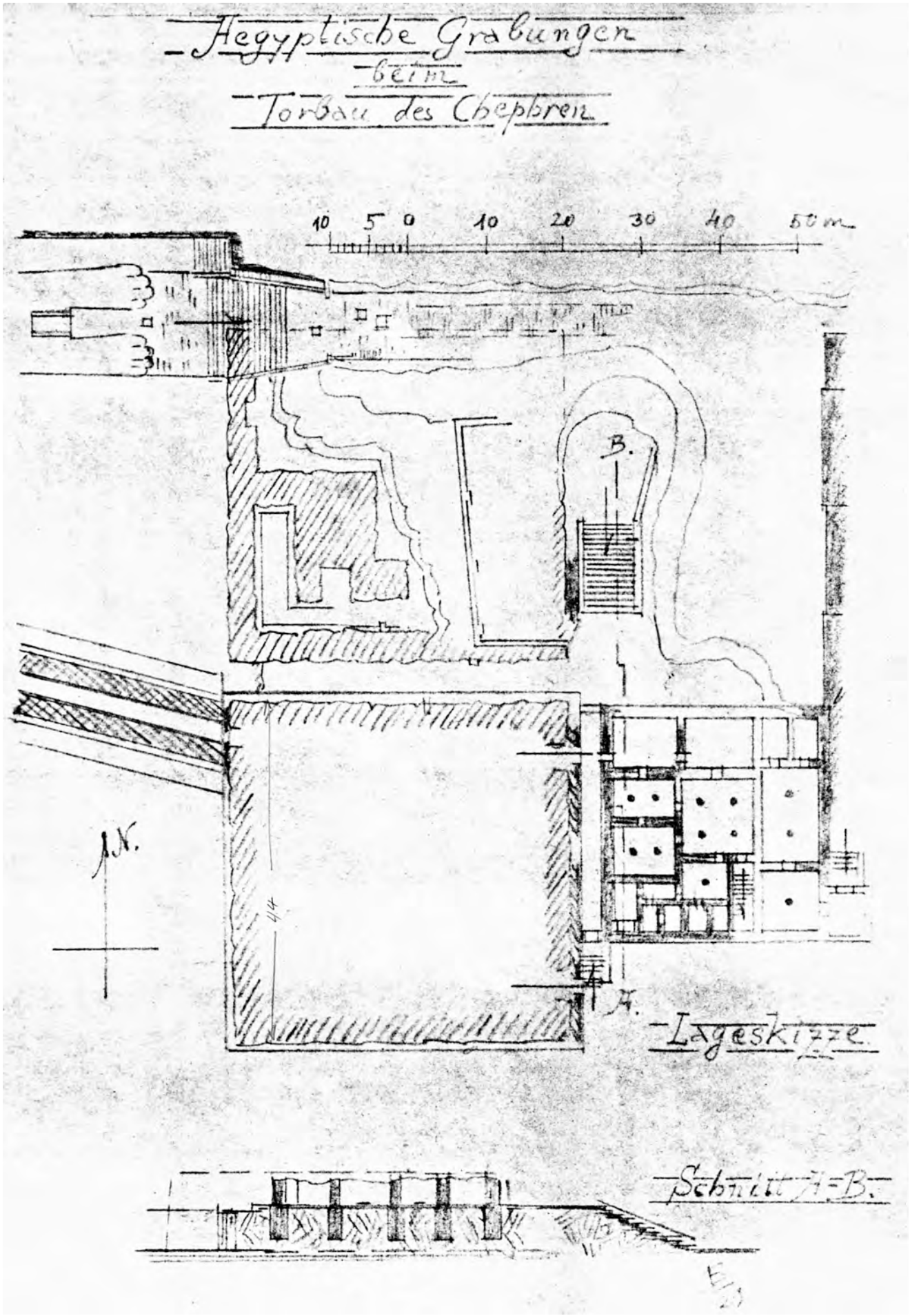

Aegyptische Grabungen
beim
Torbau des Chephren
10 5 0 10 20 30 40 50 m
B.
N.
A.
Lageskizze
Schnitt A-B.

Figure 2.3

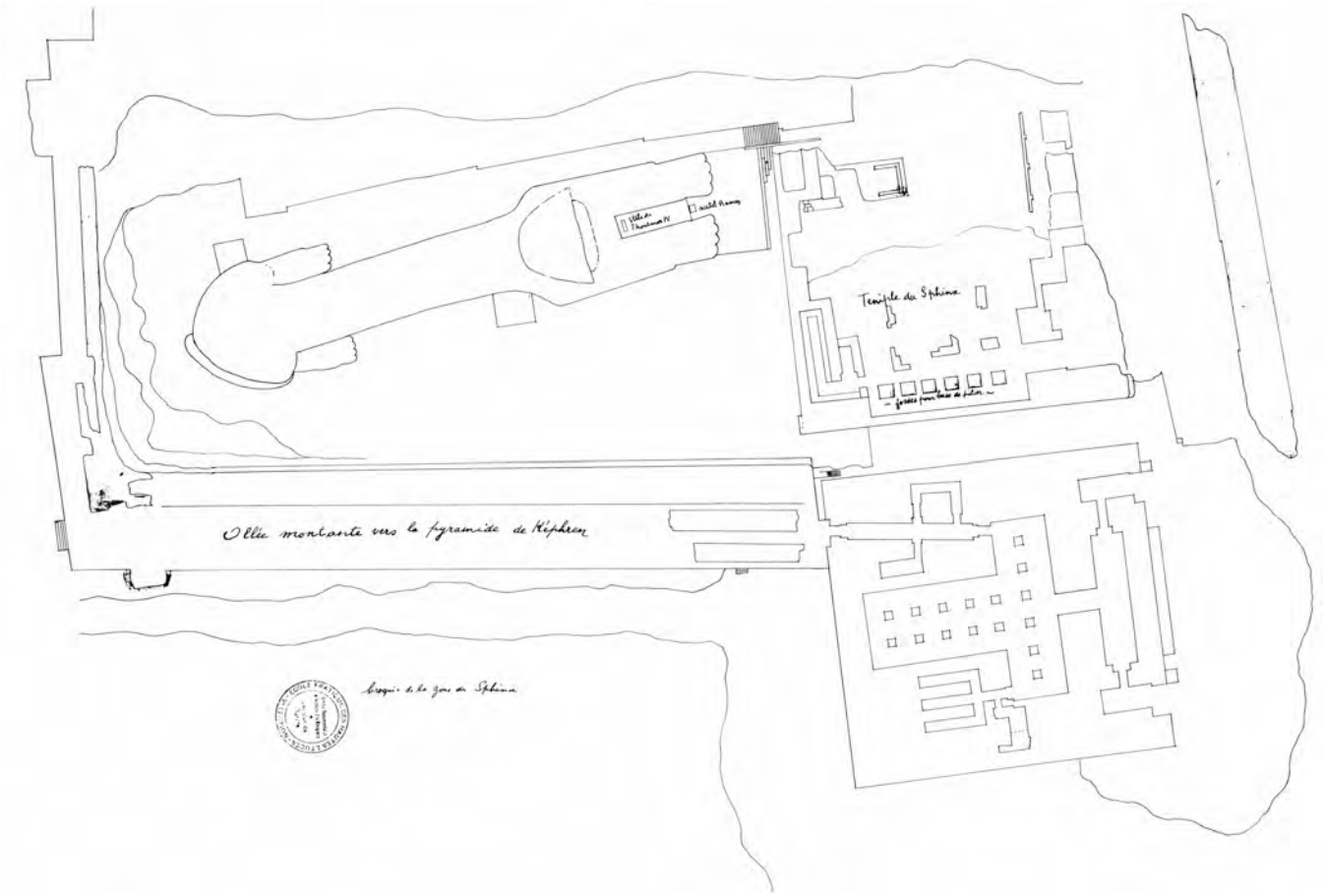

Temple du Sphinx
Allée montante vers la pyramide de Khéphren

Figure 2.4

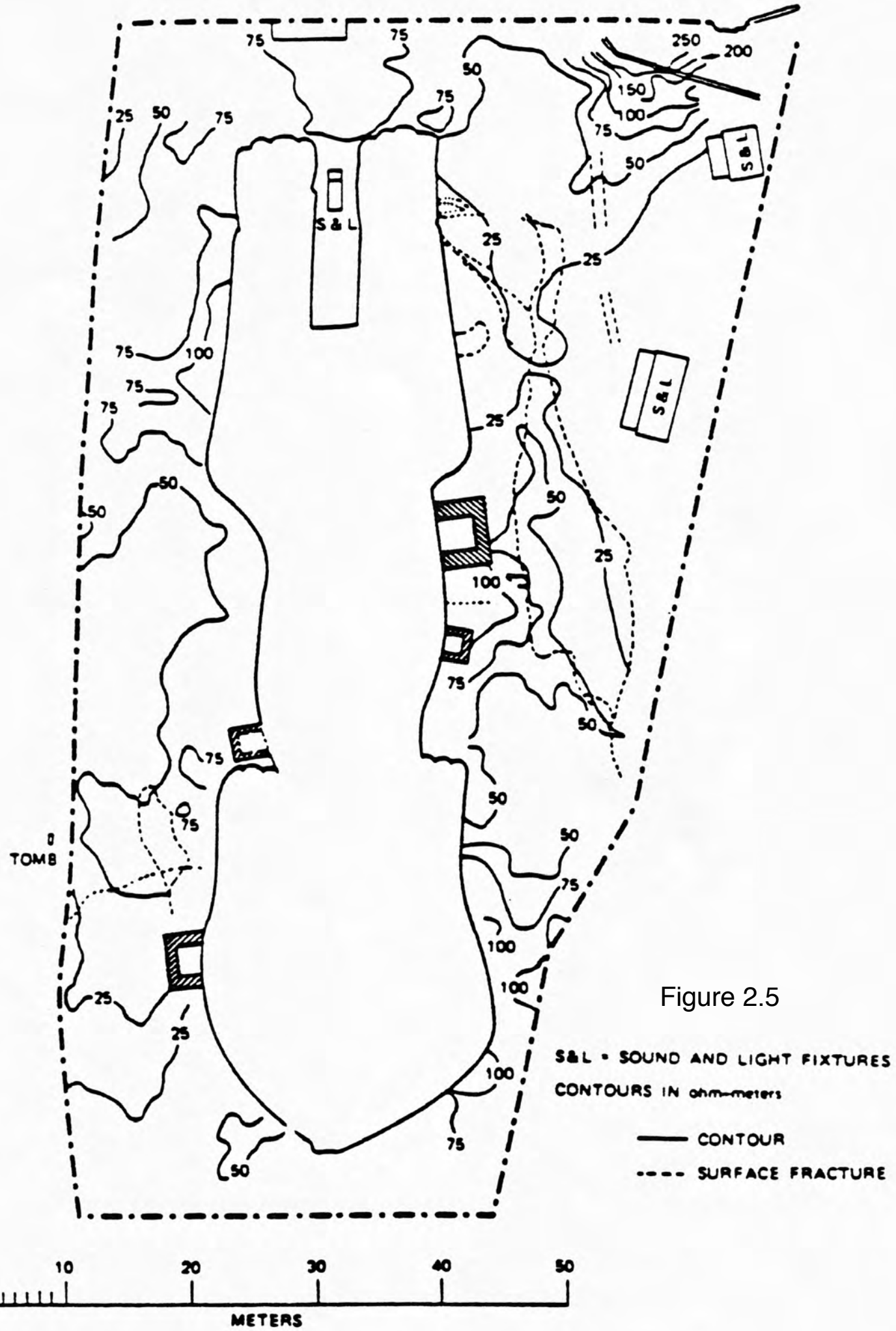

S & L
S&L
TOMB
0
10
20
30
40
50
METERS
S&L = SOUND AND LIGHT FIXTURES
CONTOURS IN ohm-meters
CONTOUR
SURFACE FRACTURE

Figure 2.5

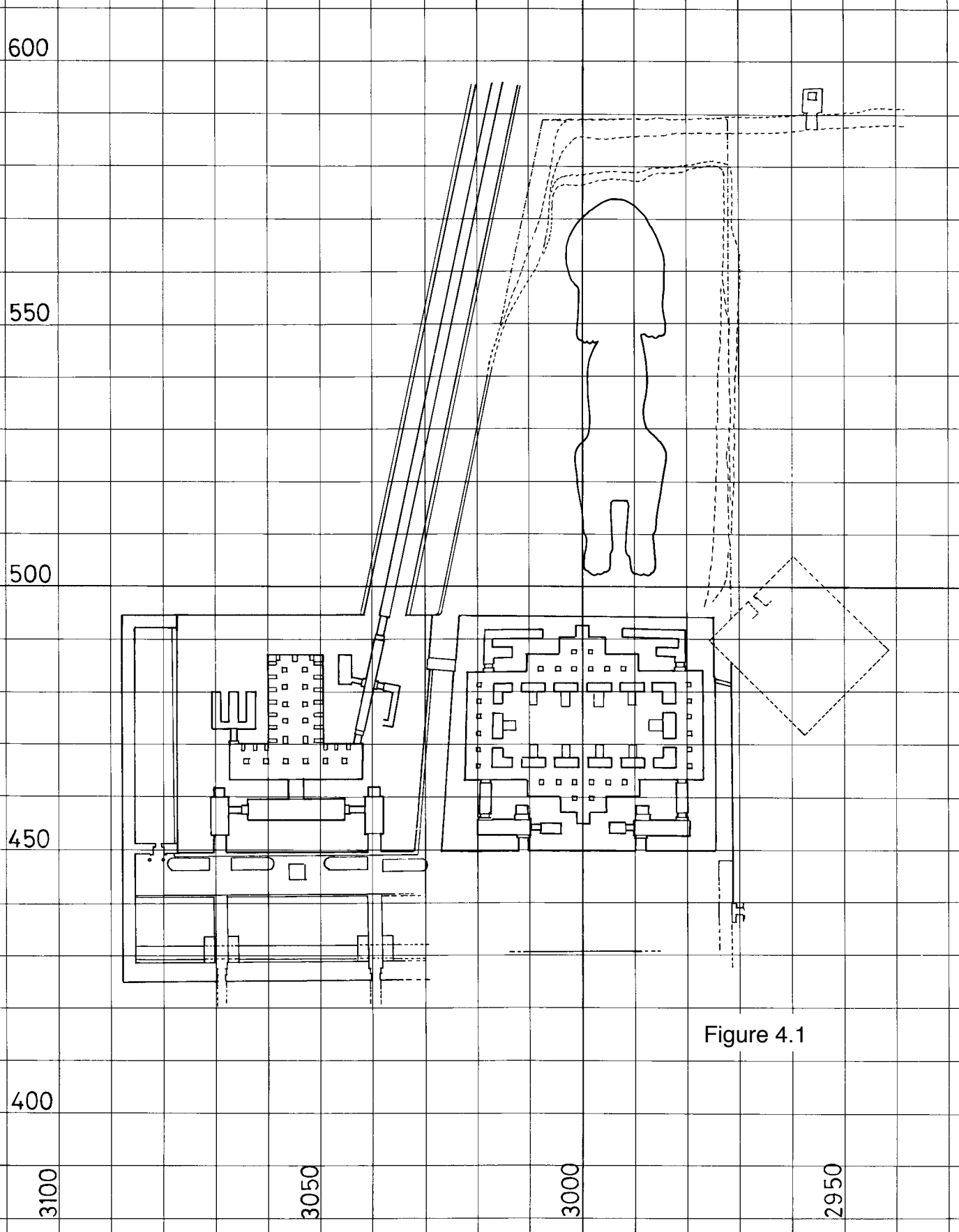


Figure 4.1

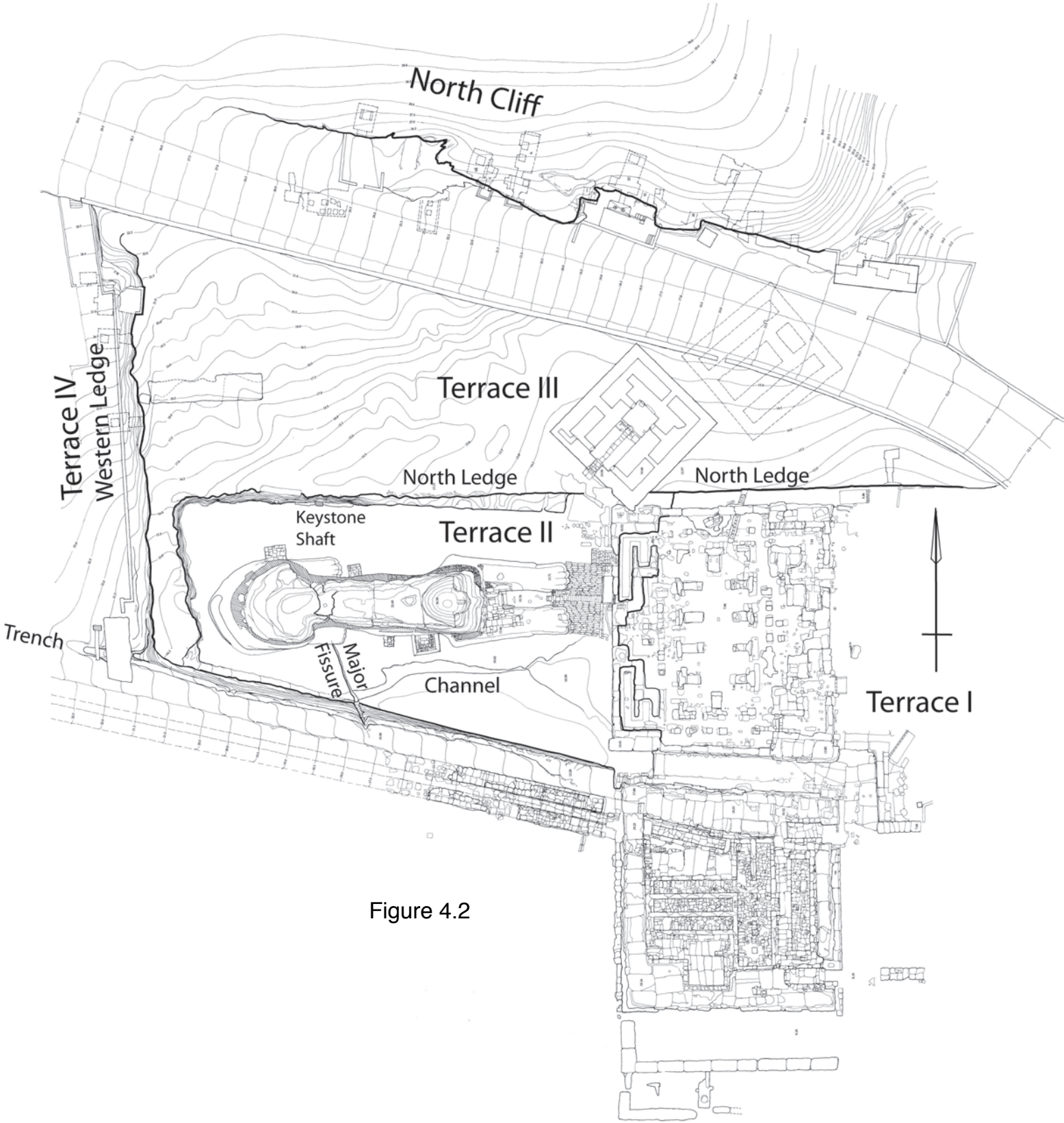

North Cliff
Terrace IV
Western Ledge
Terrace III
North Ledge
North Ledge
Keystone
Shaft
Terrace II
Trench
Major
Fissure
Channel
Terrace I

Figure 4.2

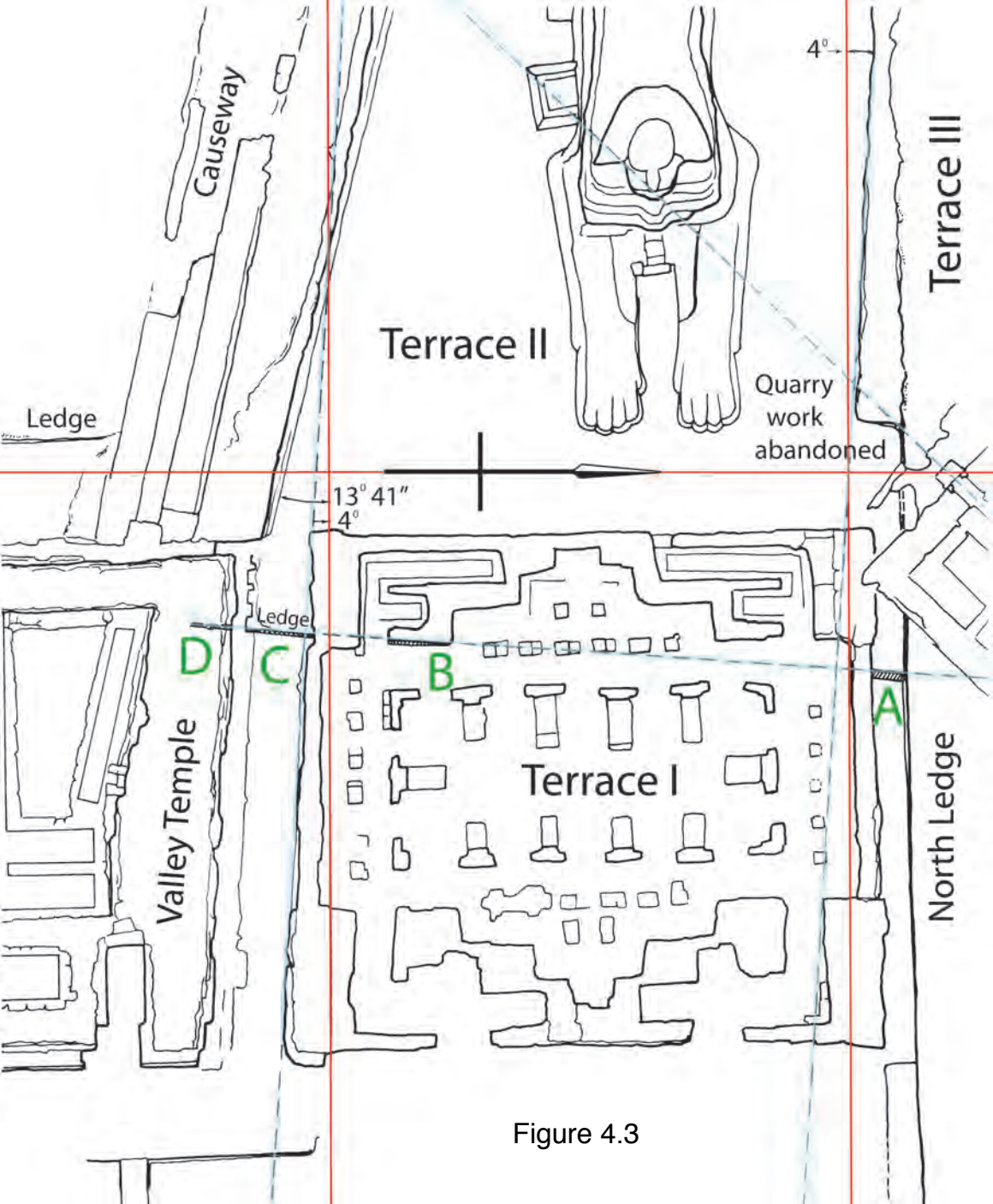

Causeway
Terrace II
Terrace III
4°
Quarry
work
abandoned
Ledge
13° 41″
4°
Ledge
D
C
B
A
Valley Temple
Terrace I
North Ledge

Figure 4.3

SPHINX: GEOLOGIC MAP OF ROCK UNITS
SANDED IN
SANDED IN
MODERN ROAD
MUDBRICK WALL
MUDBRICK TEMPLE
MEMBER I
MEMBER II
MEMBER III
SAND
CONSTRUCTION
10 5 0 10 20 30 40 50 m
CARTOGRAPHY BY MARK LEHNER

Figure 4.4

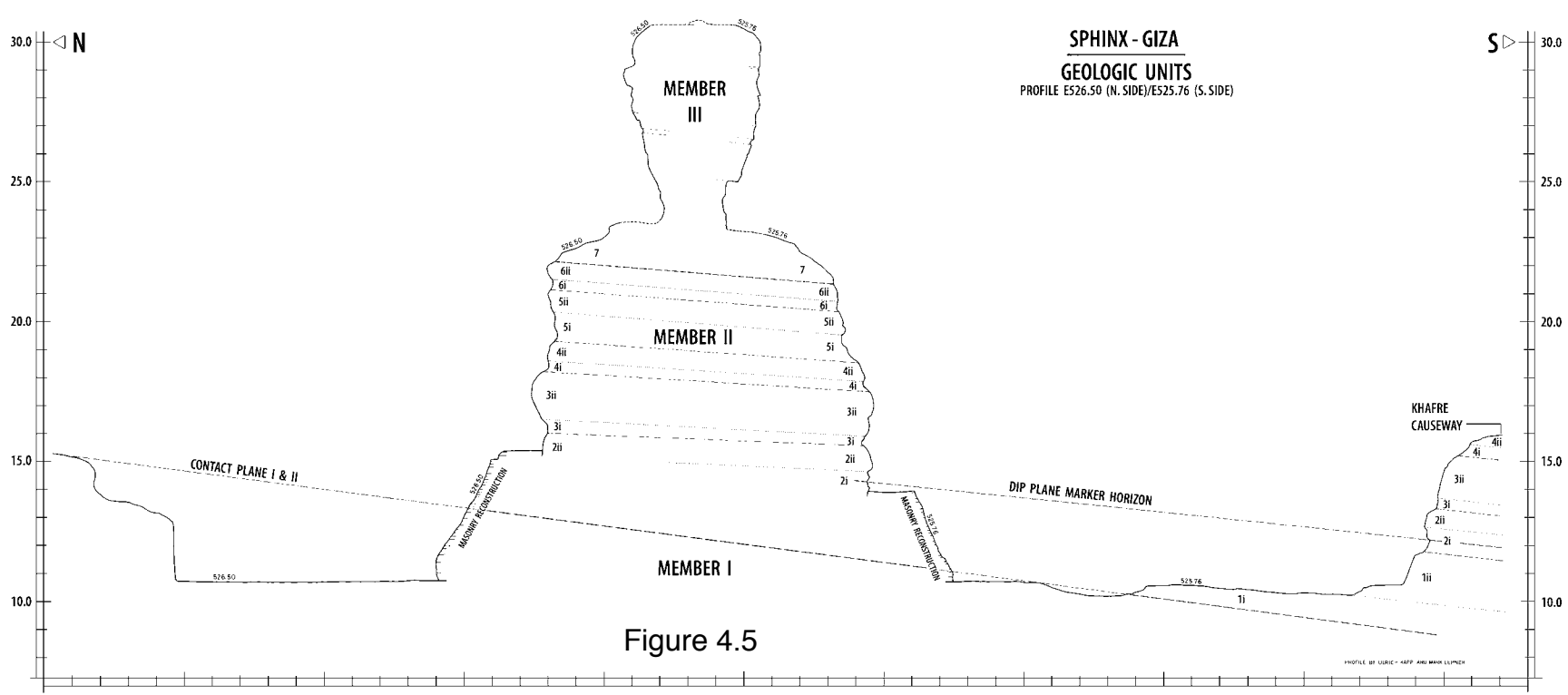
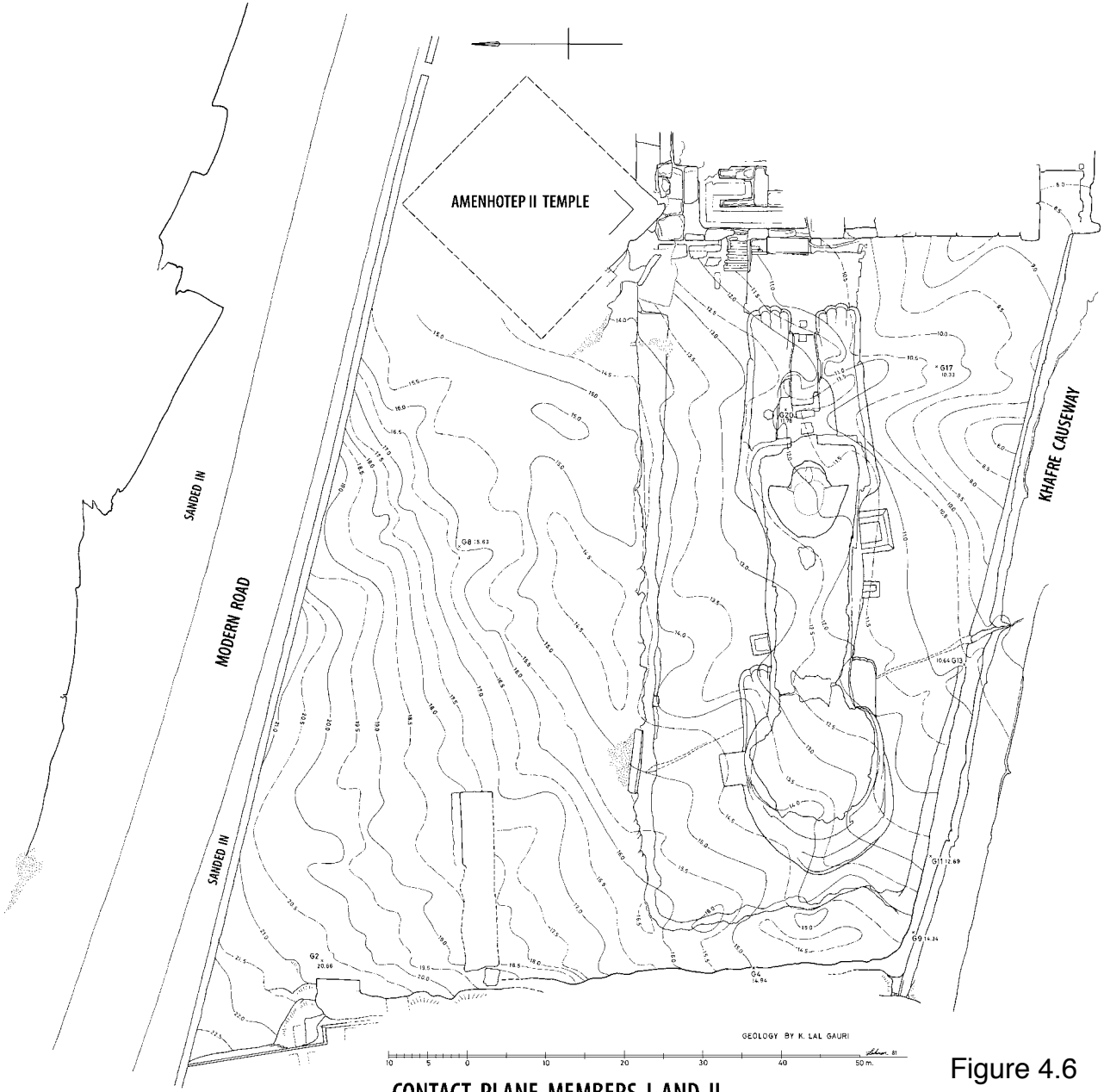

N
S
SPHINX - GIZA
GEOLOGIC UNITS
PROFILE E526.50 (N. SIDE)/E525.76 (S. SIDE)
MEMBER III
MEMBER II
MEMBER I
CONTACT PLANE I & II
DIP PLANE MARKER HORIZON
MASONRY RECONSTRUCTION
MASONRY RECONSTRUCTION
KHAFRE CAUSEWAY
526.50
525.76
30.0
25.0
20.0
15.0
10.0
2970
2975
2980
2985
2990
2995
3000
3005
3010
3015
3020

Figure 4.5



CONTACT PLANE MEMBERS I AND II

Figure 4.6

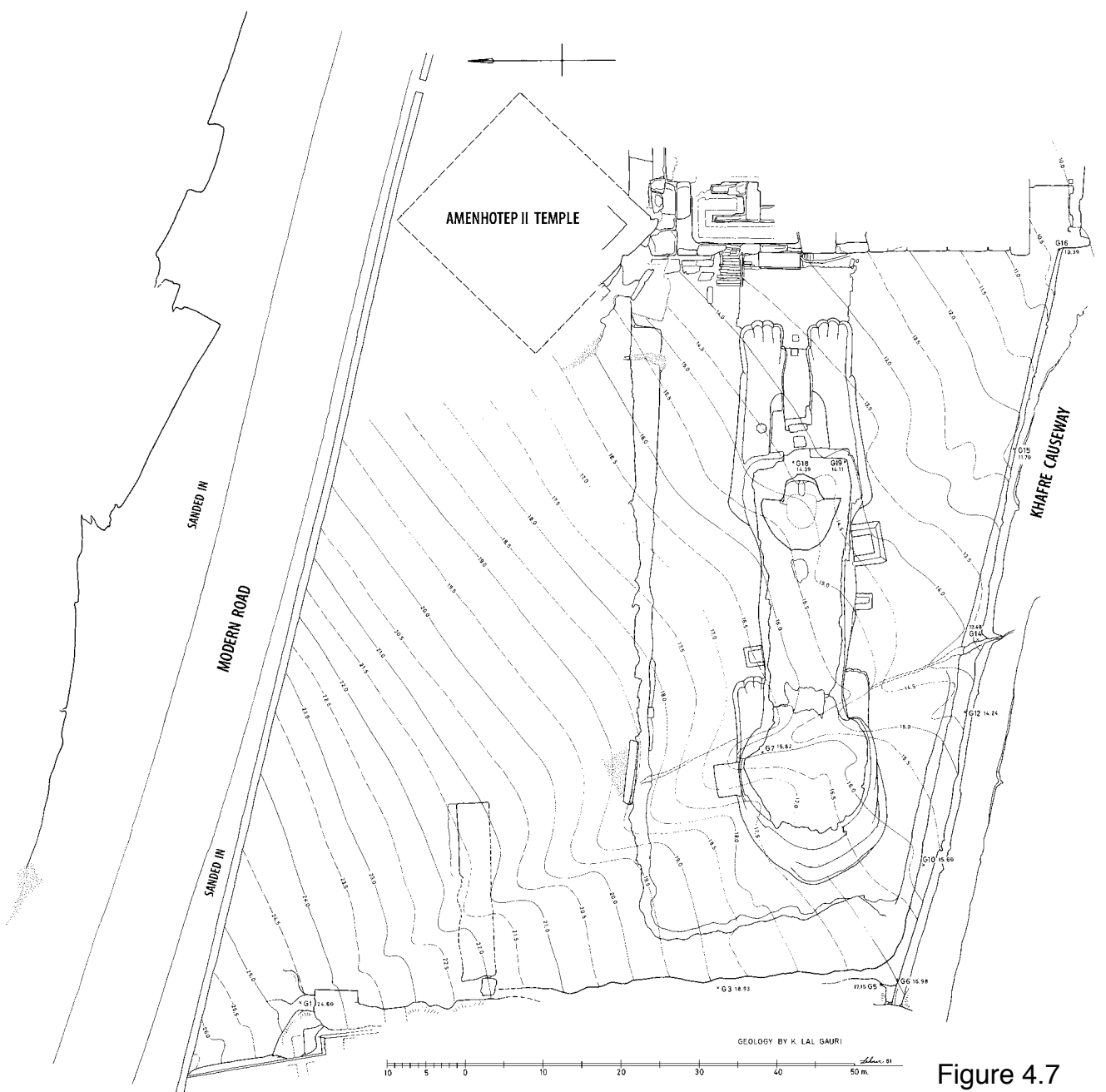


Figure 4.7

DIP PLANE MEMBER II (Bed 3i)

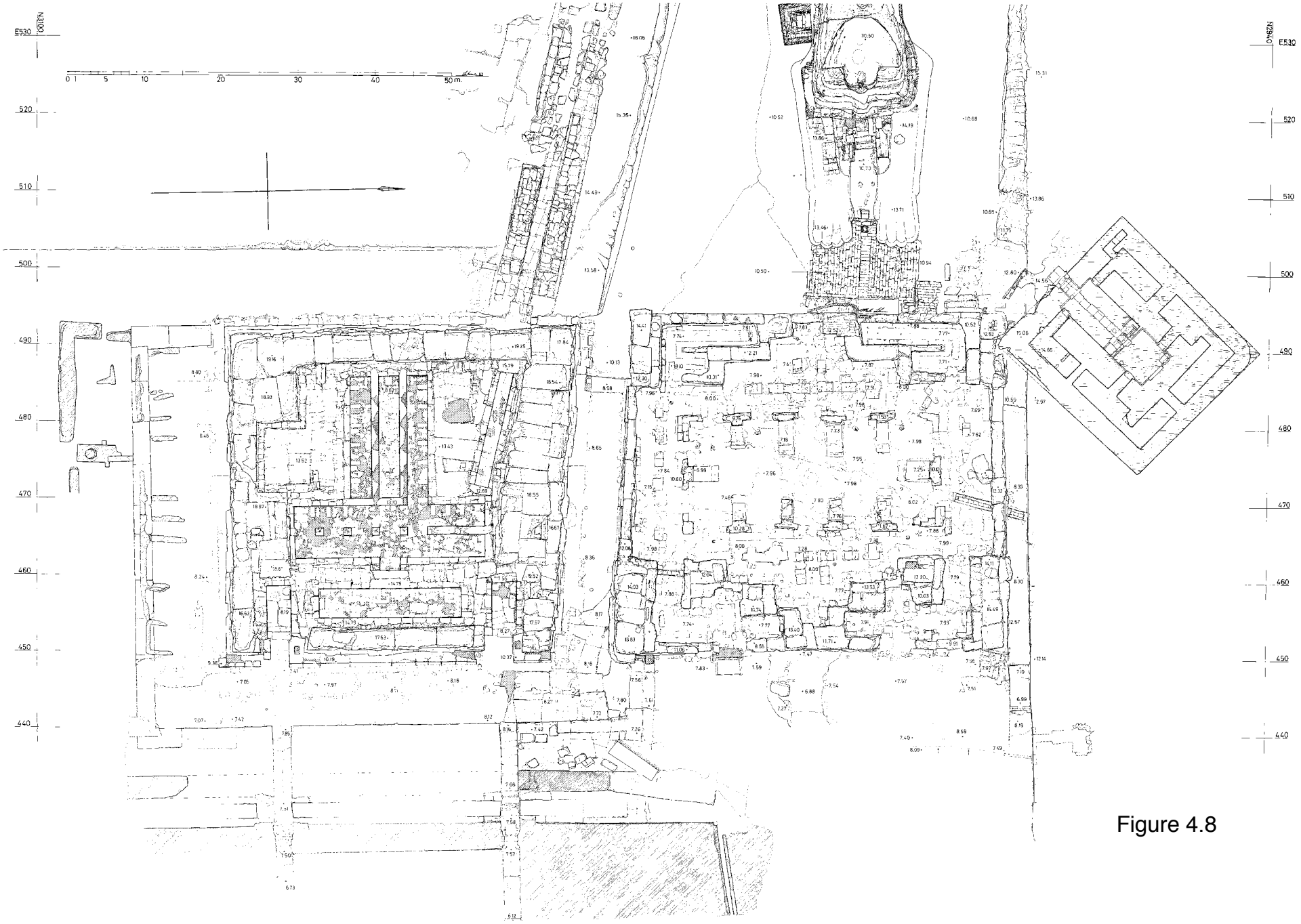
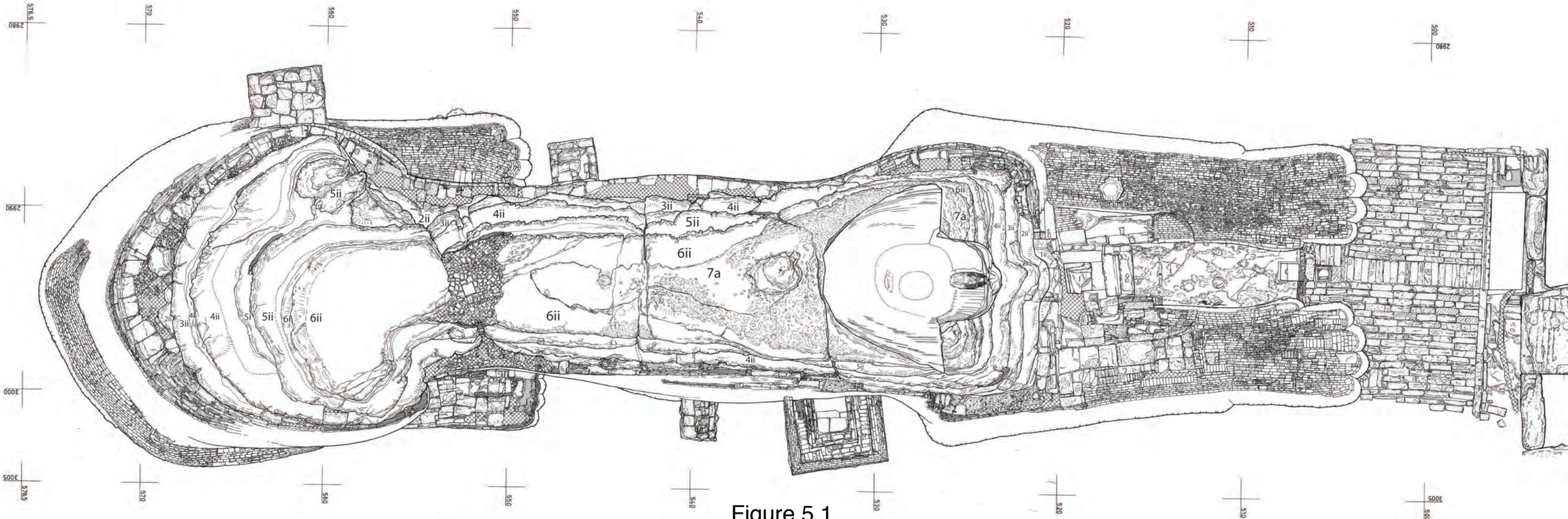

E530
N300
0 1 5 10 20 30 40 50 m.
520
510
500
490
480
470
460
450
440
N2940
E530
520
510
500
490
480
470
460
450
440

Figure 4.8



5ii
2ii
3ii
4ii
3ii
4ii
5ii
6ii
7a
6ii
7a
6ii
4ii
5ii
6ii
4ii
5ii
6ii

Figure 5.1

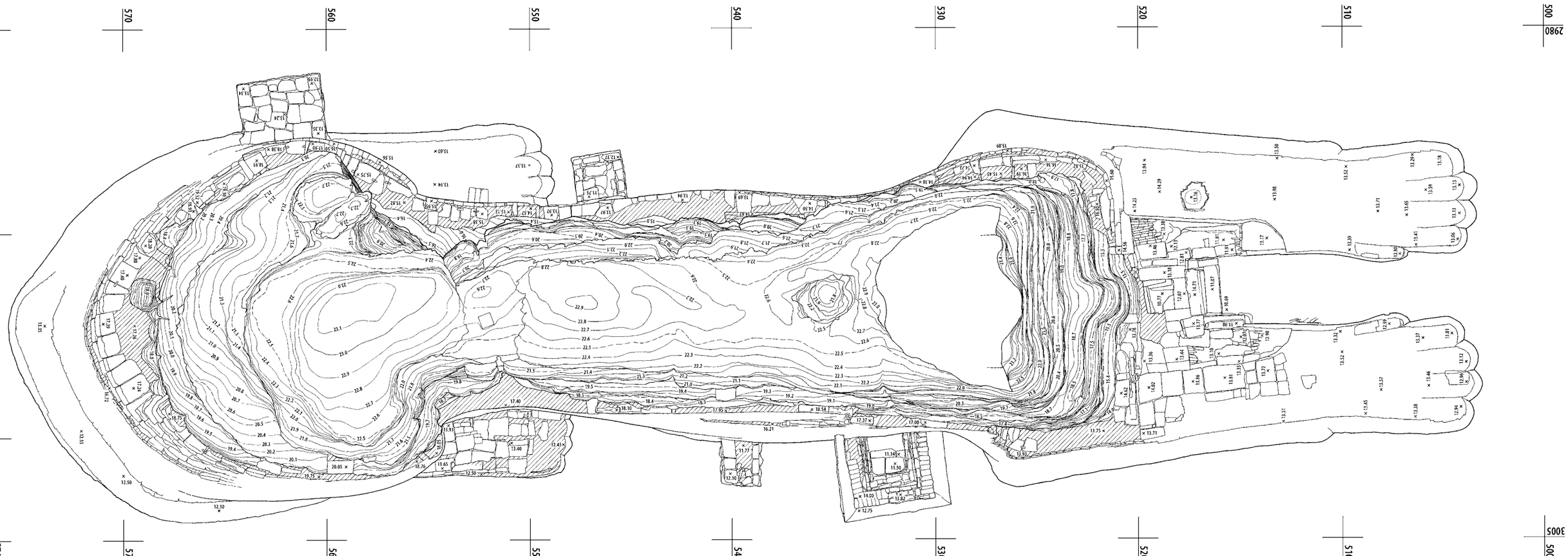


Figure 5.2

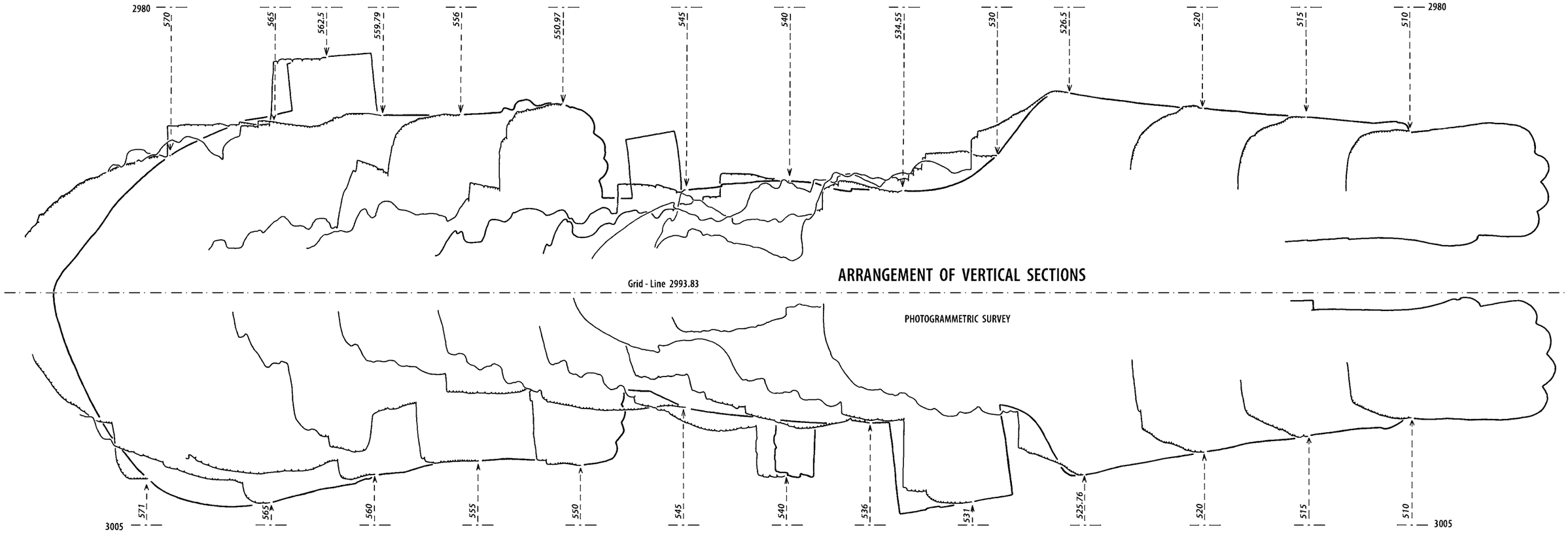

2980
570
565
562.5
559.79
556
550.97
545
540
534.55
530
526.5
520
515
510
2980
ARRANGEMENT OF VERTICAL SECTIONS
Grid - Line 2993.83
PHOTOGRAMMETRIC SURVEY
3005
571
565
560
555
550
545
540
536
531
525.76
520
515
510
3005

Figure 5.3

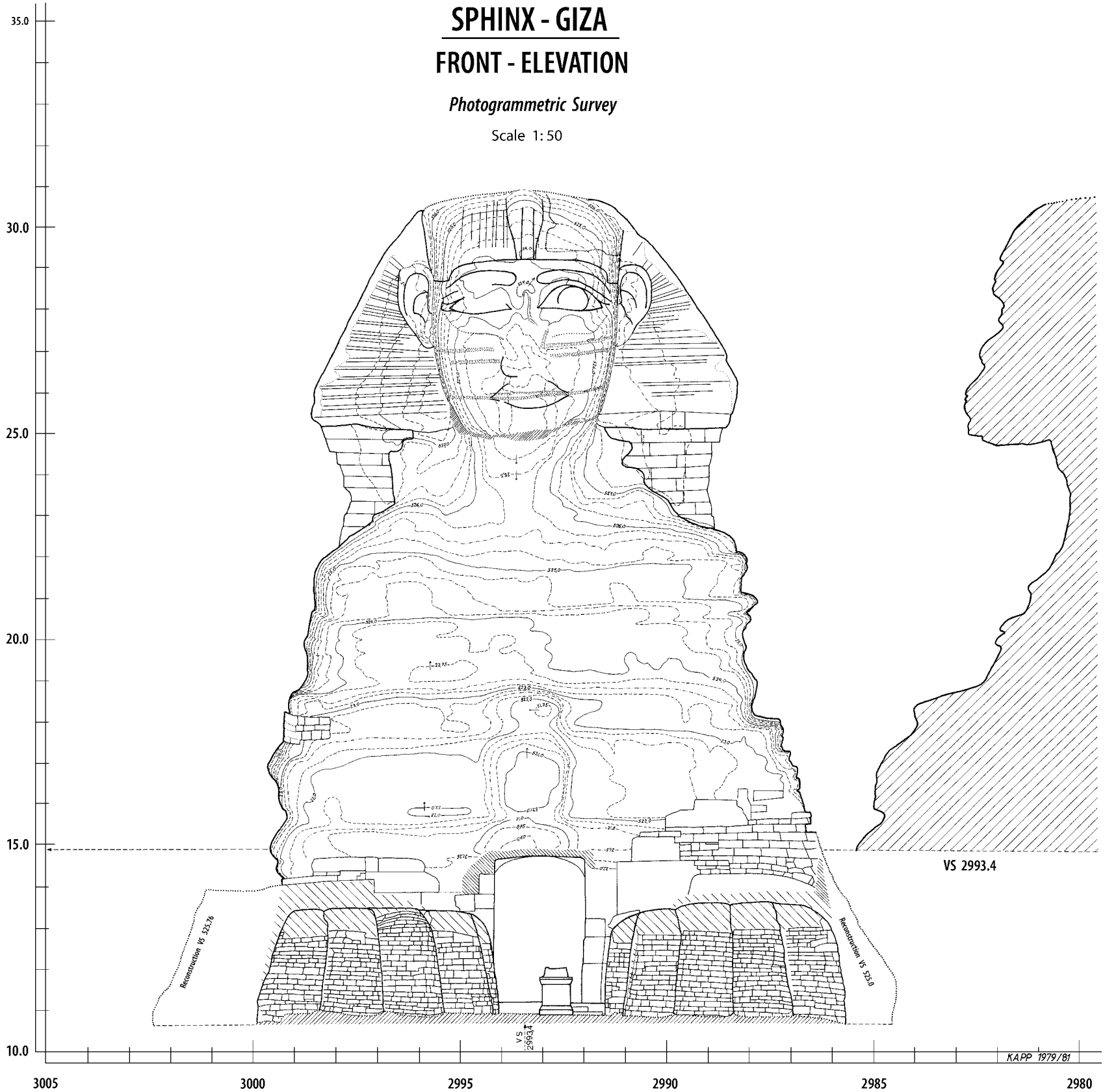

SPHINX - GIZA
FRONT - ELEVATION
Photogrammetric Survey
Scale 1: 50
35.0
30.0
25.0
20.0
15.0
10.0
3005
3000
2995
2990
2985
2980
VS 2993.4
Reconstruction VS 525.76
Reconstruction VS 525.0
VS 29934
KAPP 1979/81

Figure 5.4

Figure 5.5

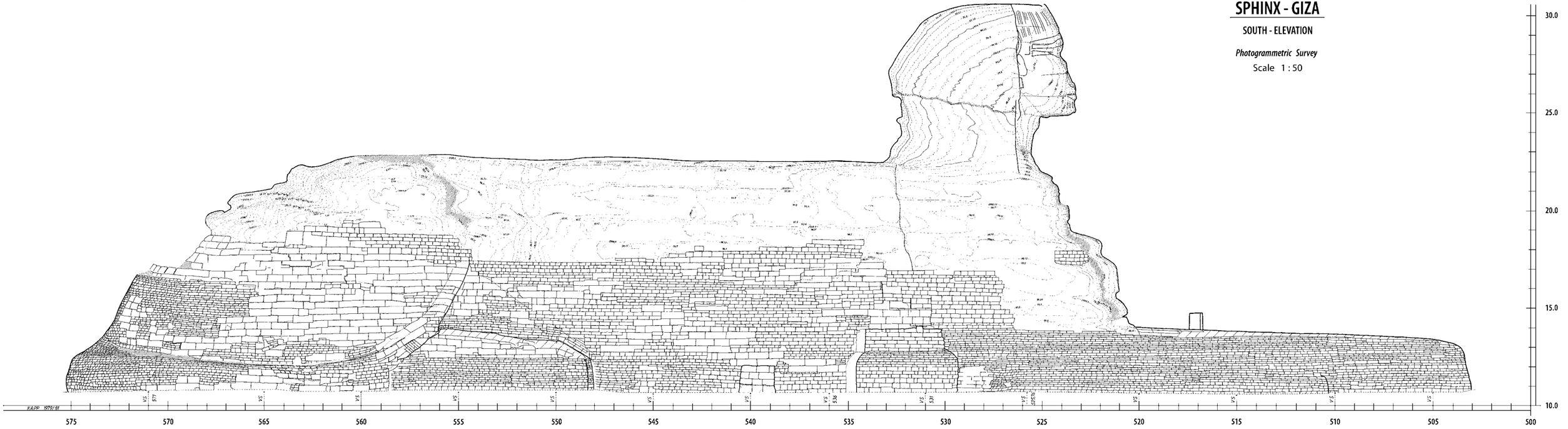
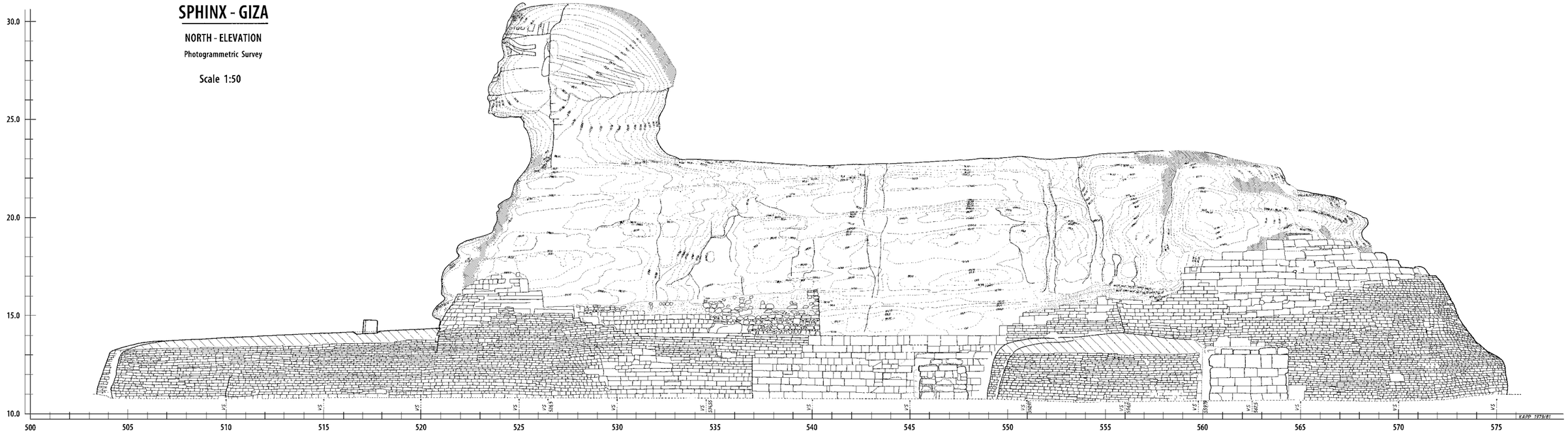

SPHINX - GIZA
SOUTH - ELEVATION
Photogrammetric Survey
Scale 1 : 50
30.0
25.0
20.0
15.0
10.0
575
570
565
560
555
550
545
540
535
530
525
520
515
510
505
500

Figure 5.6


SPHINX - GIZA
NORTH - ELEVATION
Photogrammetric Survey
Scale 1:50
30.0
25.0
20.0
15.0
10.0
500
505
510
515
520
525
530
535
540
545
550
555
560
565
570
575
KAPP 1979/81

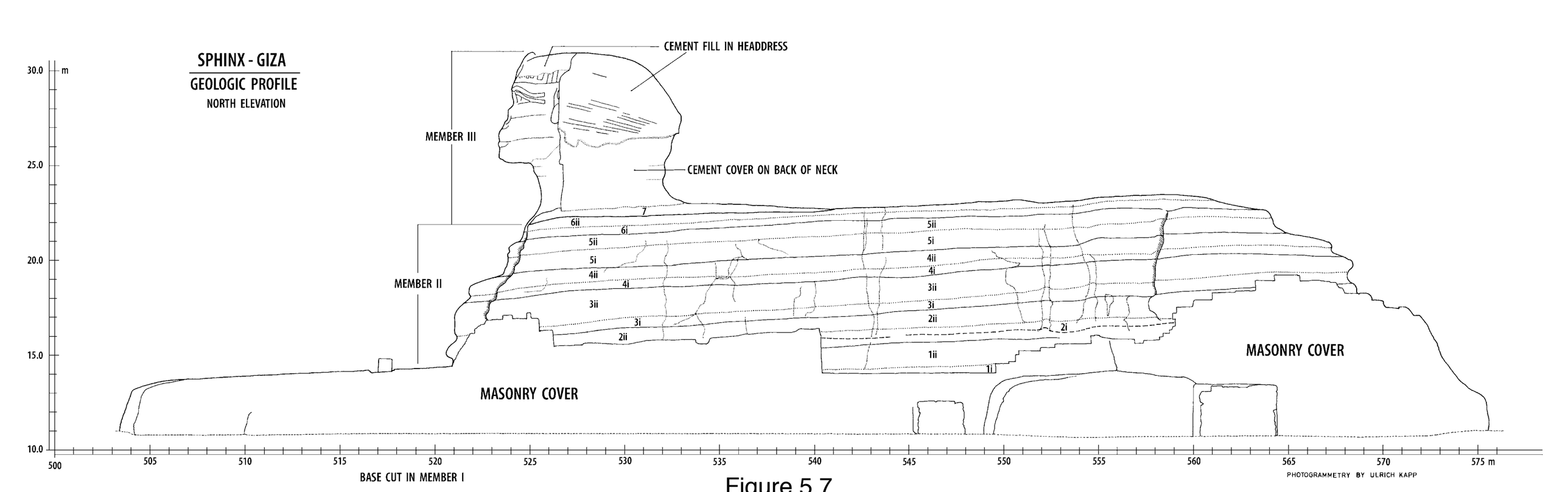

SPHINX - GIZA
GEOLOGIC PROFILE
NORTH ELEVATION
CEMENT FILL IN HEADDRESS
CEMENT COVER ON BACK OF NECK
MEMBER III
MEMBER II
MASONRY COVER
MASONRY COVER
BASE CUT IN MEMBER I
PHOTOGRAMMETRY BY ULRICH KAPP
m
30.0
25.0
20.0
15.0
10.0
500
505
510
515
520
525
530
535
540
545
550
555
560
565
570
575 m
7
6ii
6i
5ii
5i
4ii
4i
3ii
3i
2ii
2i
1ii
1i

Figure 5.7

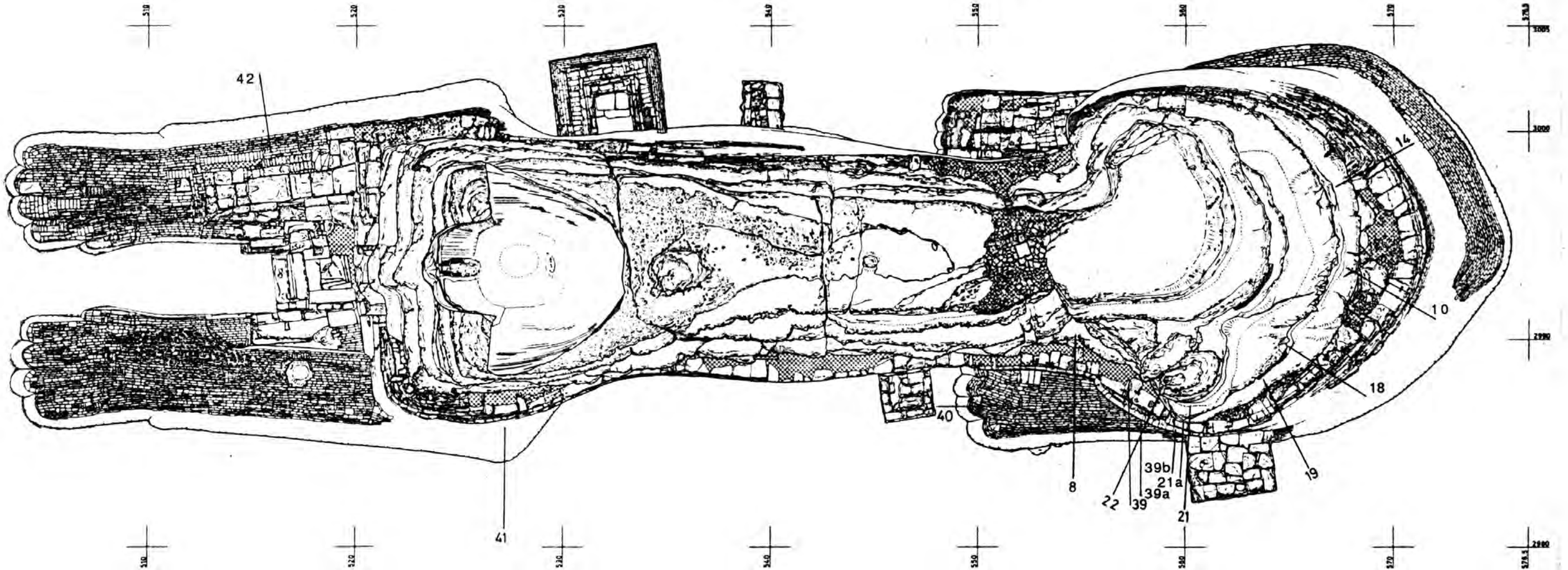


Figure 5.8

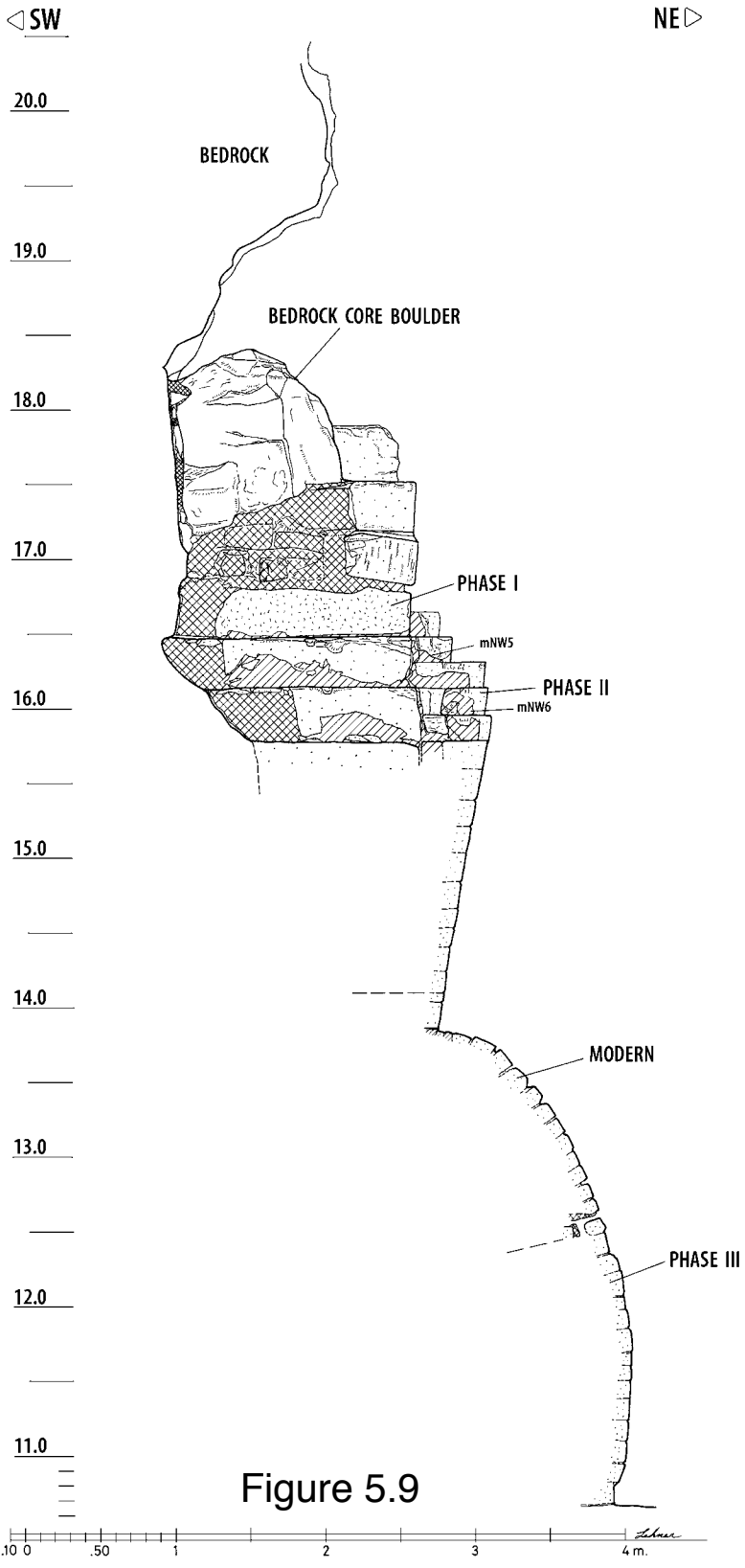


Figure 5.9

SECTION - ELEVATION 22

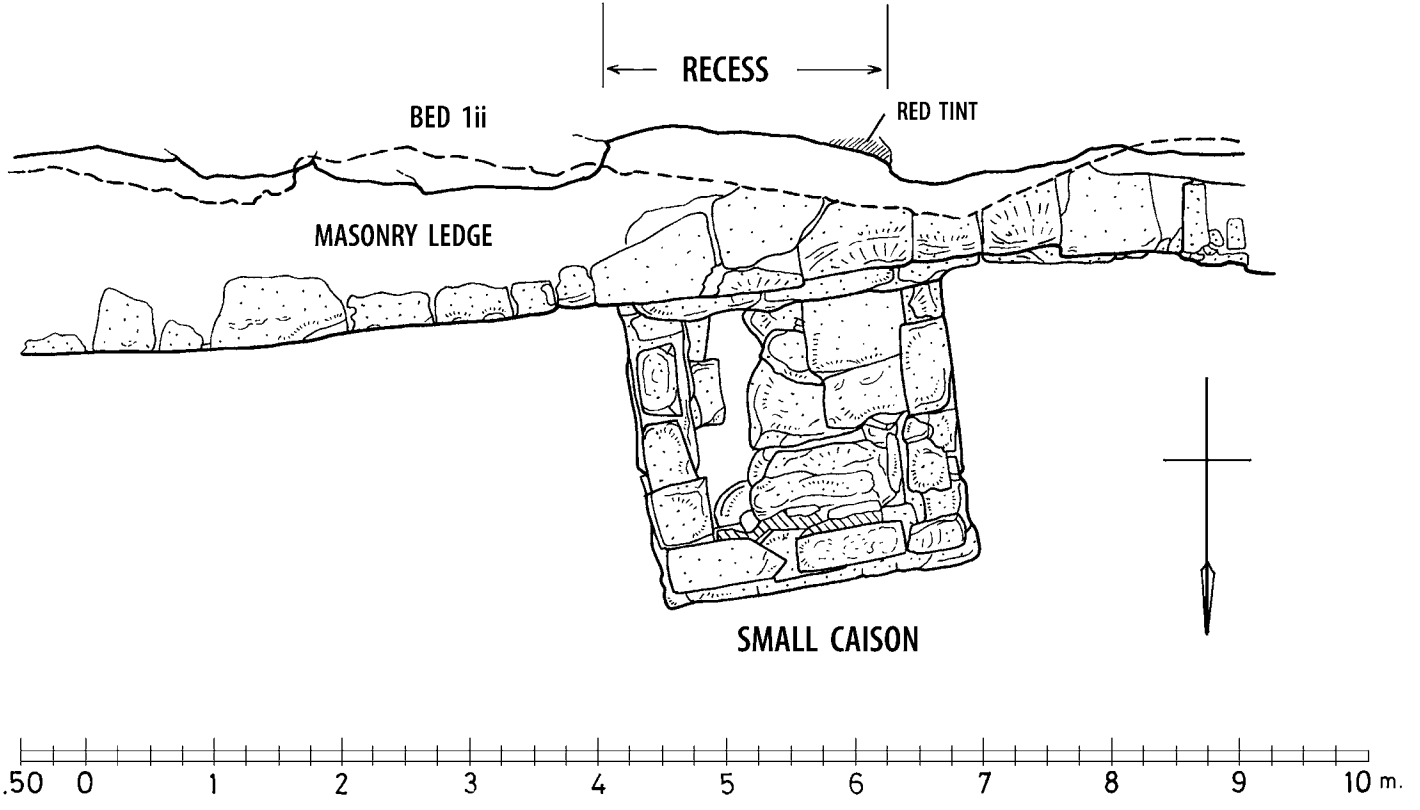

RECESS
BED 1ii
RED TINT
MASONRY LEDGE
SMALL CAISON
.50 0 1 2 3 4 5 6 7 8 9 10 m.

Figure 5.10

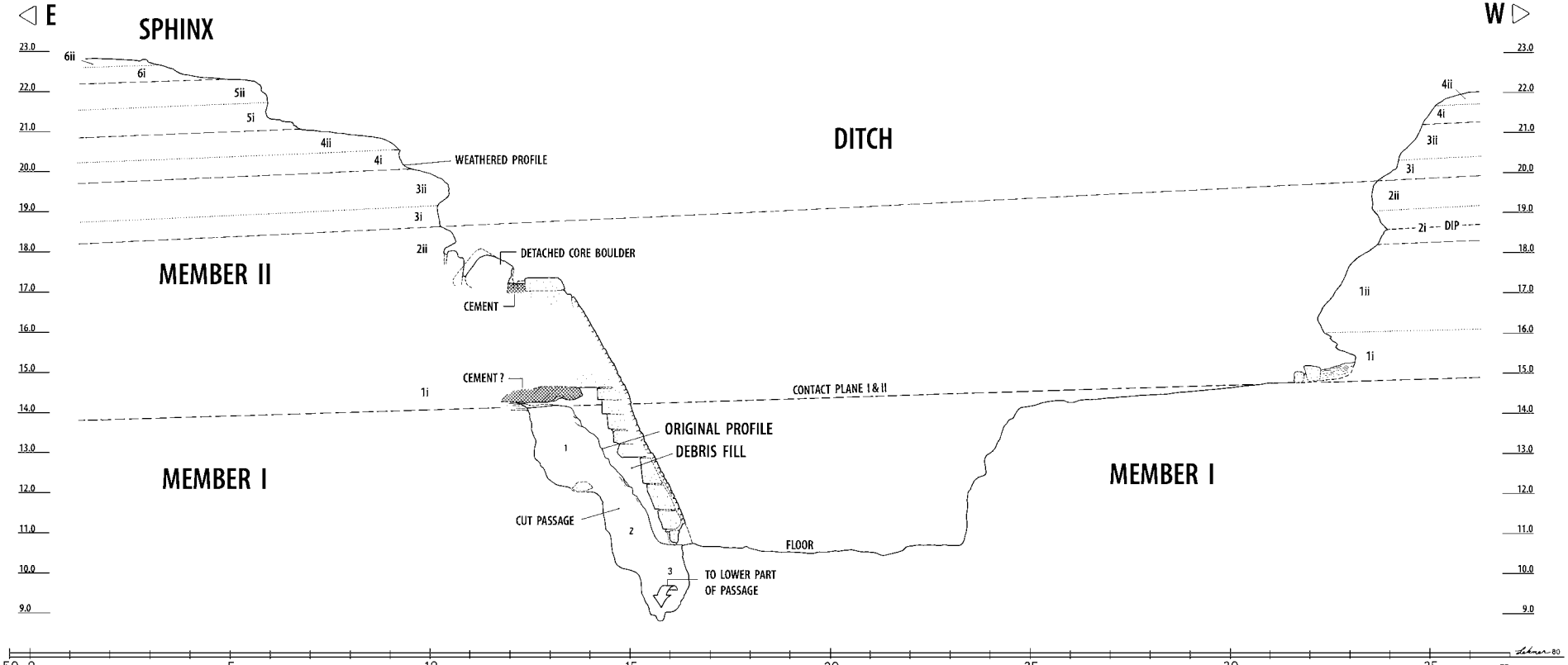

E
W
SPHINX
DITCH
MEMBER II
MEMBER I
MEMBER I
6ii
6i
5ii
5i
4ii
4i
3ii
3i
2ii
1i
4ii
4i
3ii
3i
2ii
2i
1ii
1i
WEATHERED PROFILE
DETACHED CORE BOULDER
CEMENT
CEMENT ?
DIP
CONTACT PLANE I & II
ORIGINAL PROFILE
DEBRIS FILL
CUT PASSAGE
FLOOR
TO LOWER PART OF PASSAGE
1
2
3
23.0
22.0
21.0
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
.50 0
5
10
15
20
25
30
35
m.
CARTOGRAPHY BY MARK LEHNER

Figure 5.11

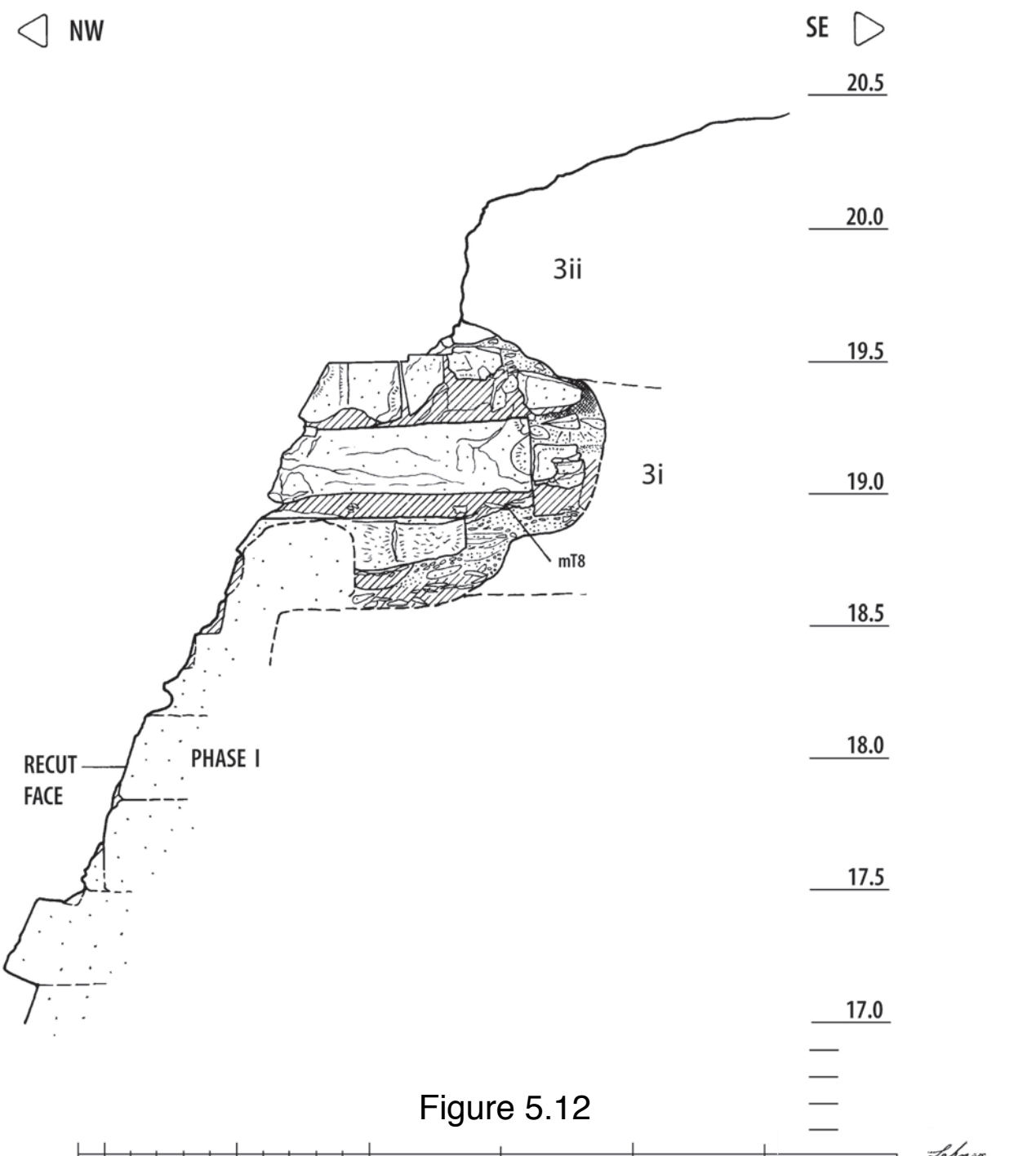

SECTION 18
NW
SE
20.5
20.0
19.5
19.0
18.5
18.0
17.5
17.0
3ii
3i
mT8
RECUT FACE
PHASE I
.10 0
.50
1
2
3m.

Figure 5.12

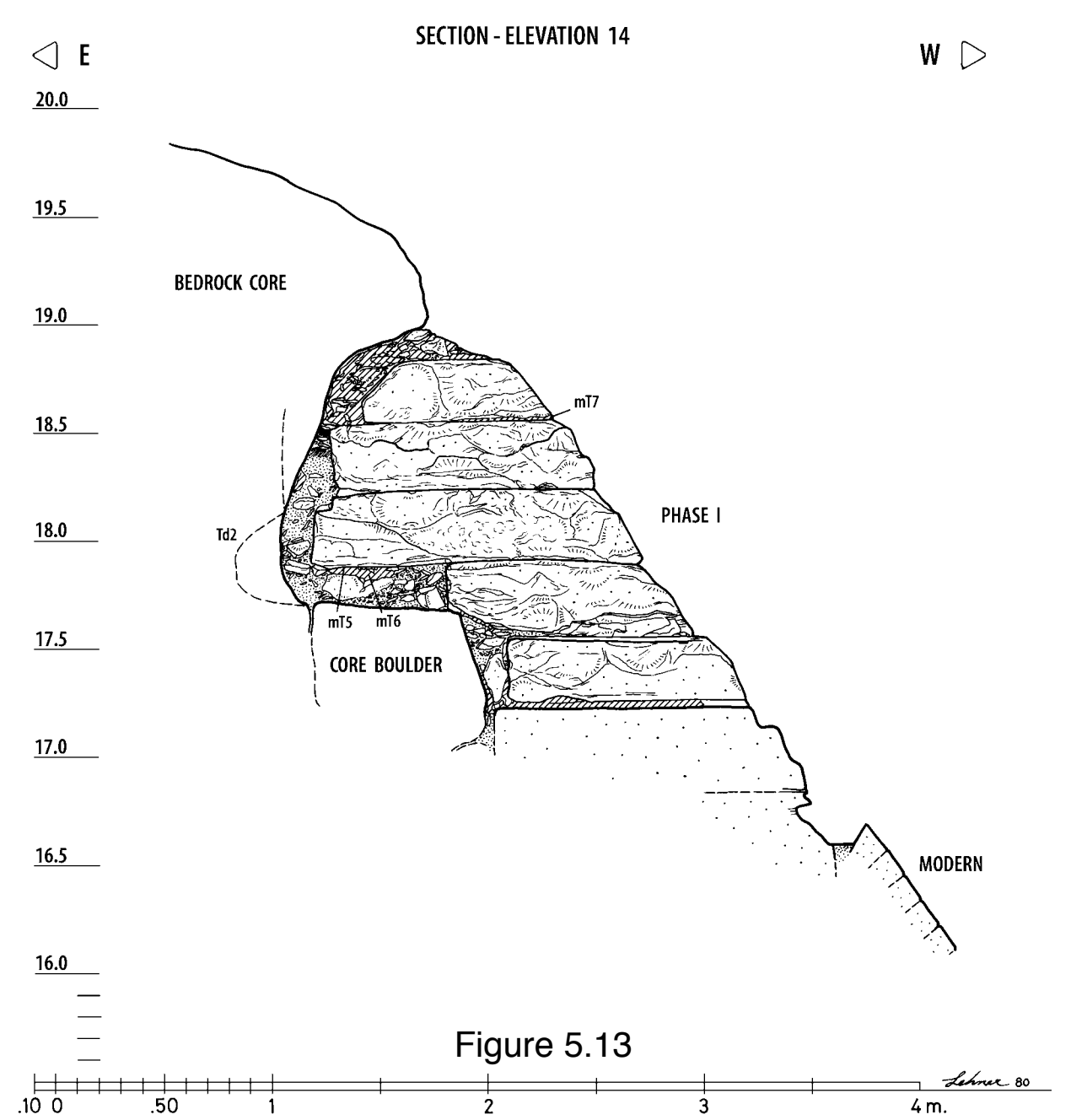
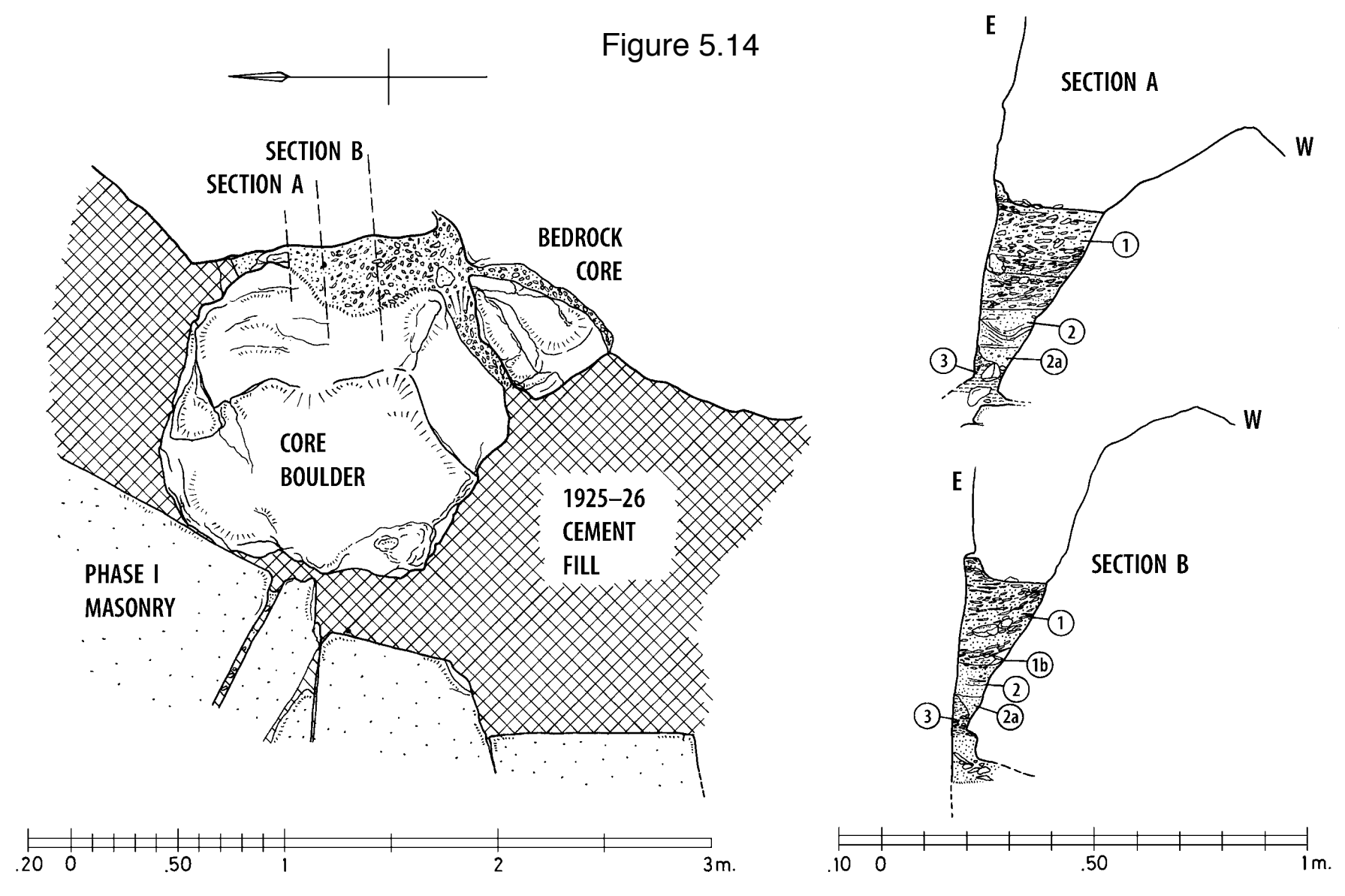

SECTION - ELEVATION 14
E
W
20.0
19.5
19.0
18.5
18.0
17.5
17.0
16.5
16.0
BEDROCK CORE
mT7
PHASE I
Td2
mT5
mT6
CORE BOULDER
MODERN
.10 0
.50
1
2
3
4 m.
Lehner 80

Figure 5.13

Figure 5.14


SECTION B
SECTION A
BEDROCK CORE
CORE BOULDER
1925–26 CEMENT FILL
PHASE I MASONRY
.20 0 .50 1 2 3m.
E
SECTION A
W
1
2
3
2a
W
E
SECTION B
1
1b
2
3
2a
.10 0 .50 1m.

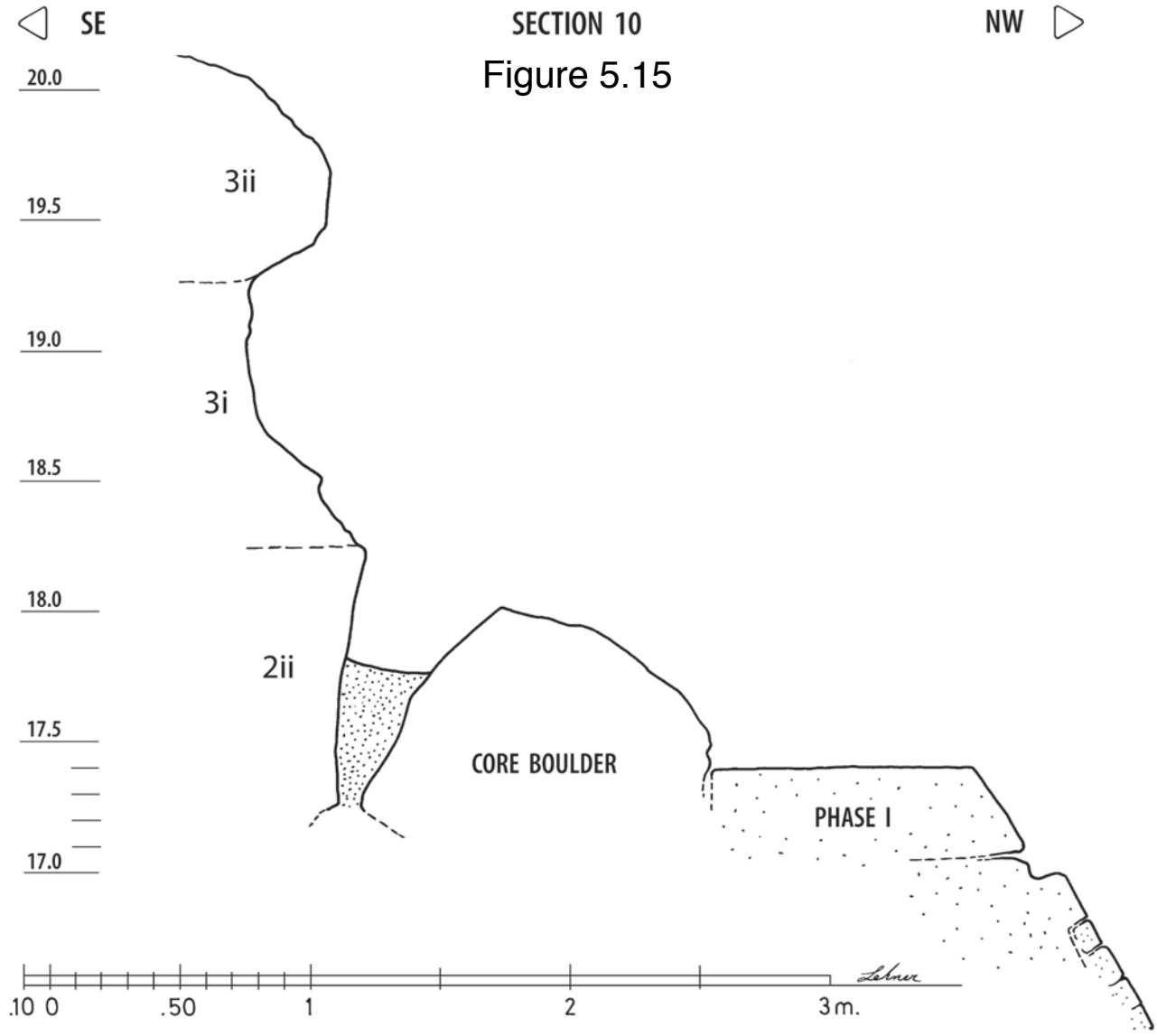

SE
SECTION 10
NW
20.0
19.5
19.0
18.5
18.0
17.5
17.0
3ii
3i
2ii
CORE BOULDER
PHASE I
.10 0
.50
1
2
3m.
Lehner

Figure 5.15

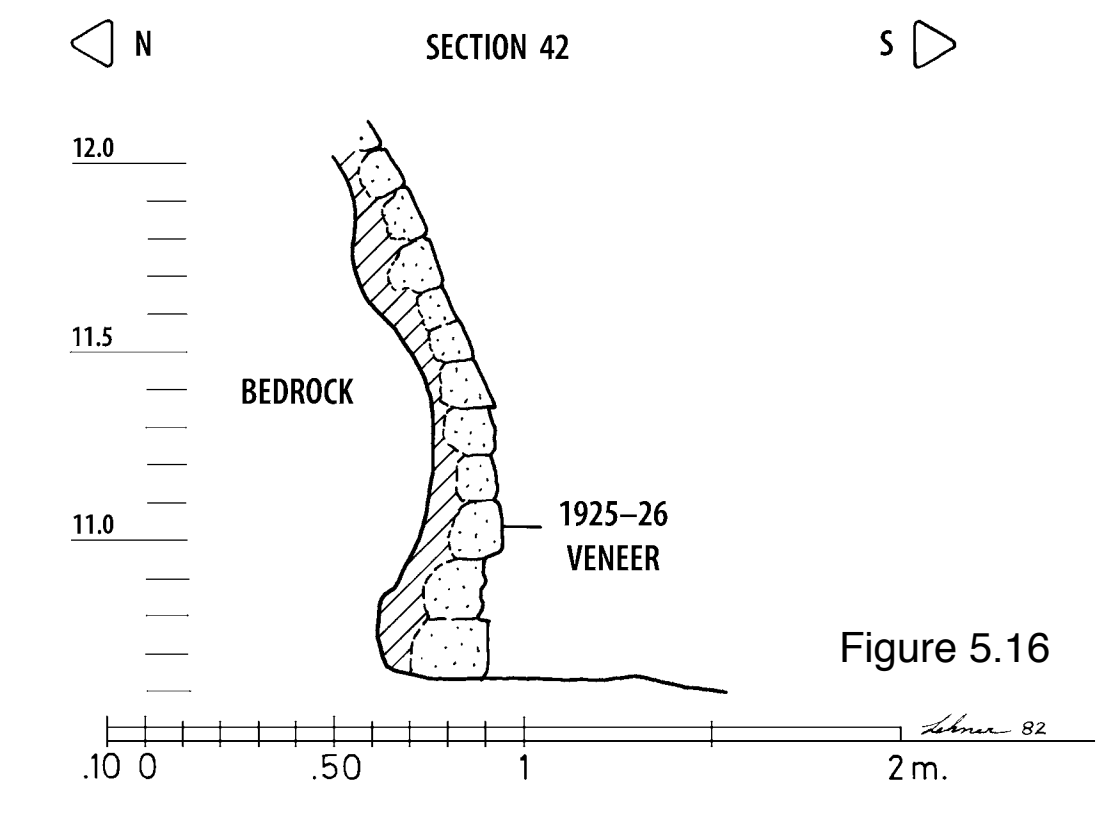

N
SECTION 42
S
12.0
11.5
11.0
BEDROCK
1925–26
VENEER
Schmer 82
.10 0
.50
1
2 m.

Figure 5.16

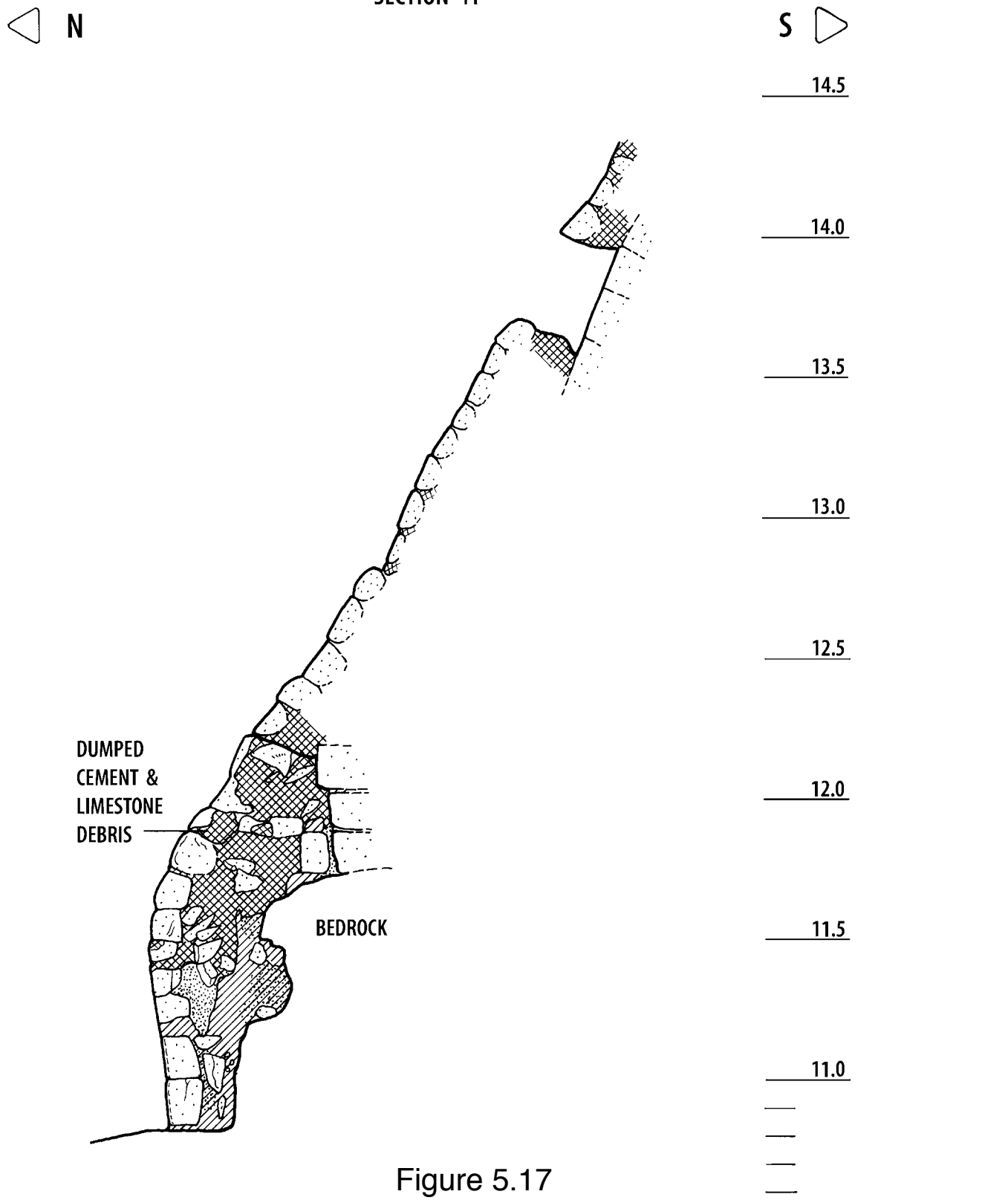
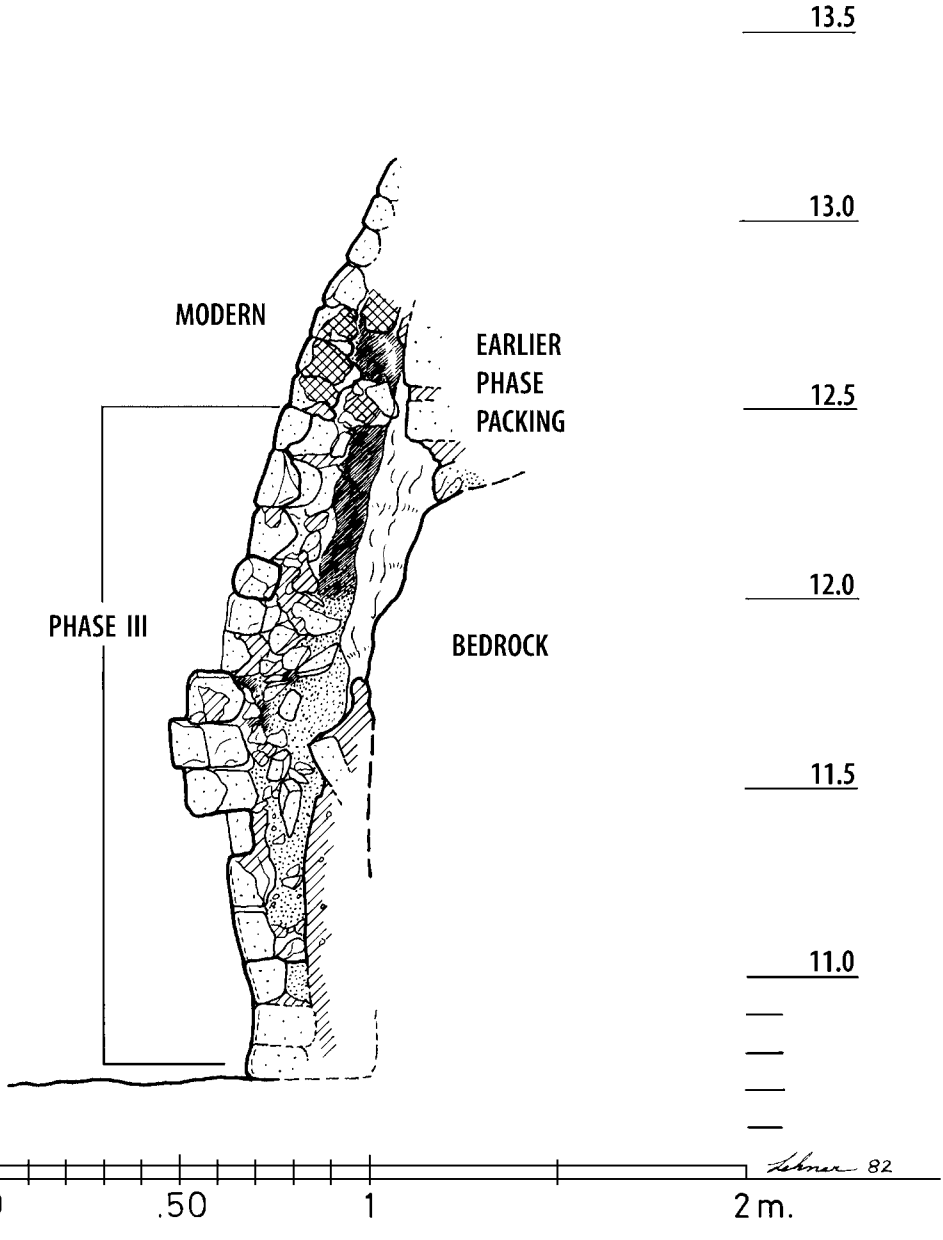

SECTION 41
N
S
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
DUMPED
CEMENT &
LIMESTONE
DEBRIS
BEDROCK
.10 0
.50
1
2
3 m.
Lehner 82

Figure 5.17

Figure 5.18


SECTION 39
13.5
13.0
12.5
12.0
11.5
11.0
MODERN
EARLIER
PHASE
PACKING
PHASE III
BEDROCK
Lehner 82
.10 0
.50
1
2 m.

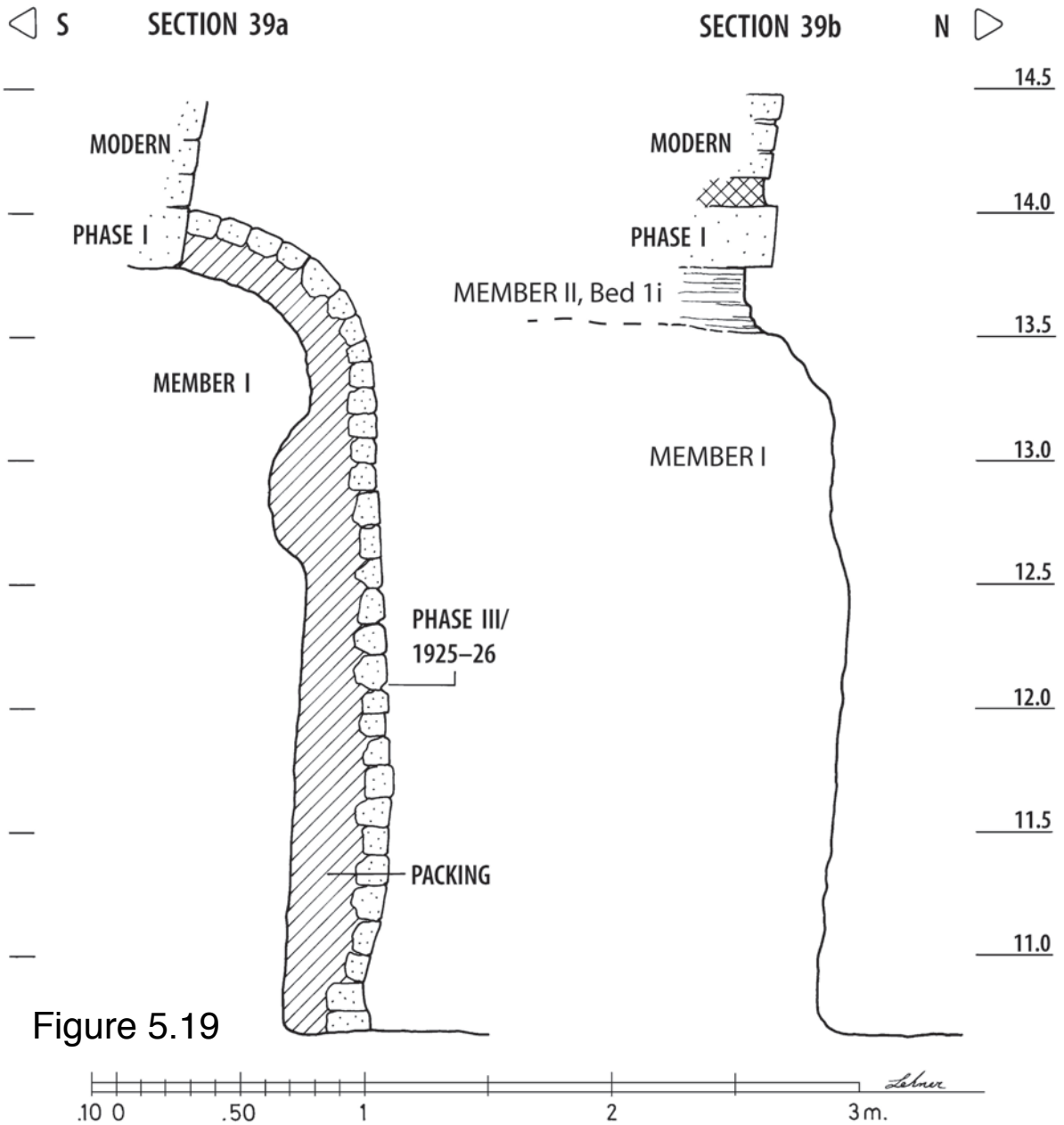

S
SECTION 39a
SECTION 39b
N
MODERN
PHASE I
MEMBER I
PHASE III/
1925–26
PACKING
MODERN
PHASE I
MEMBER II, Bed 1i
MEMBER I
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
.10 0
.50
1
2
3 m.

Figure 5.19

W

SECTION 40

E

Figure 5.20

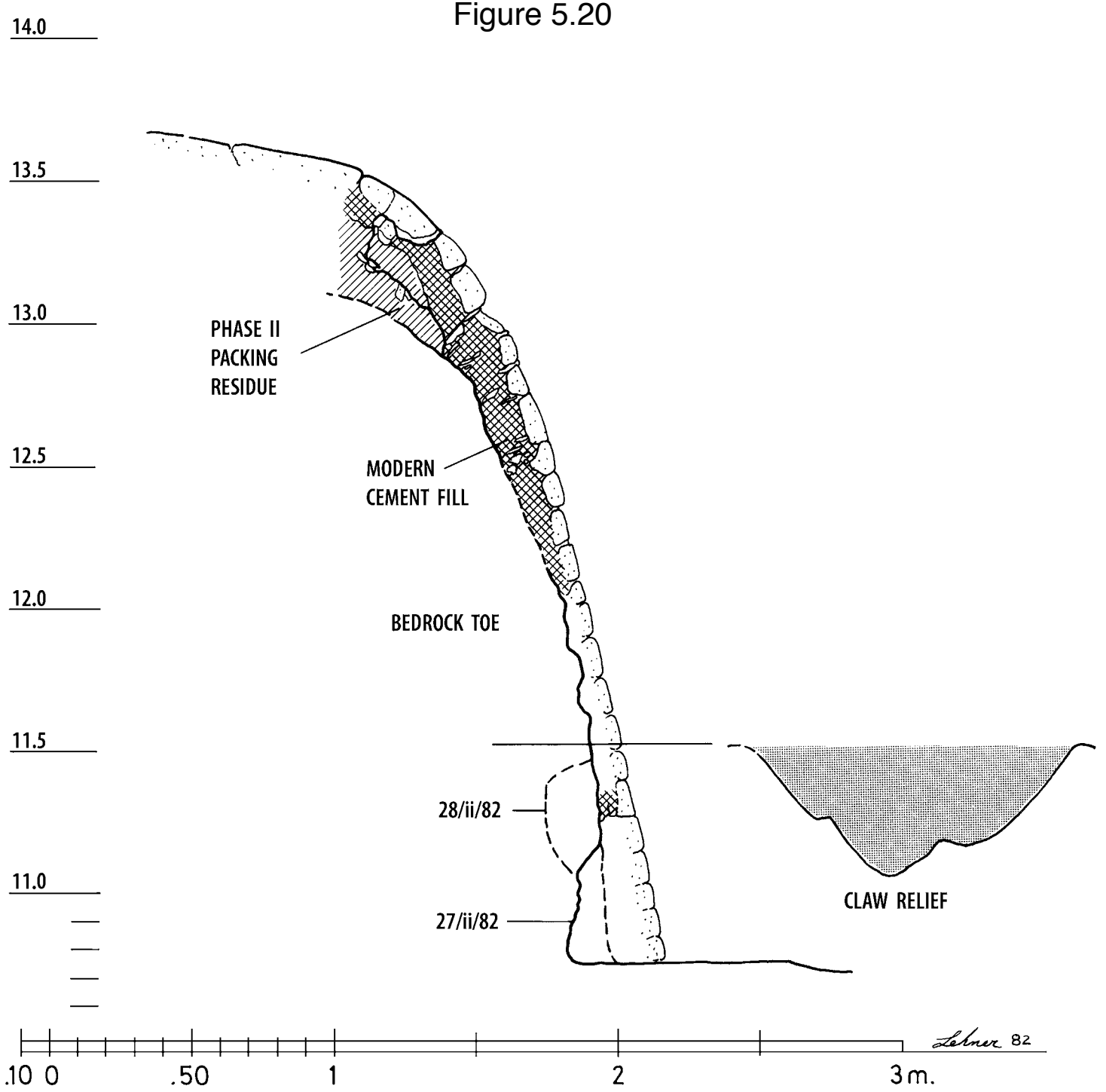
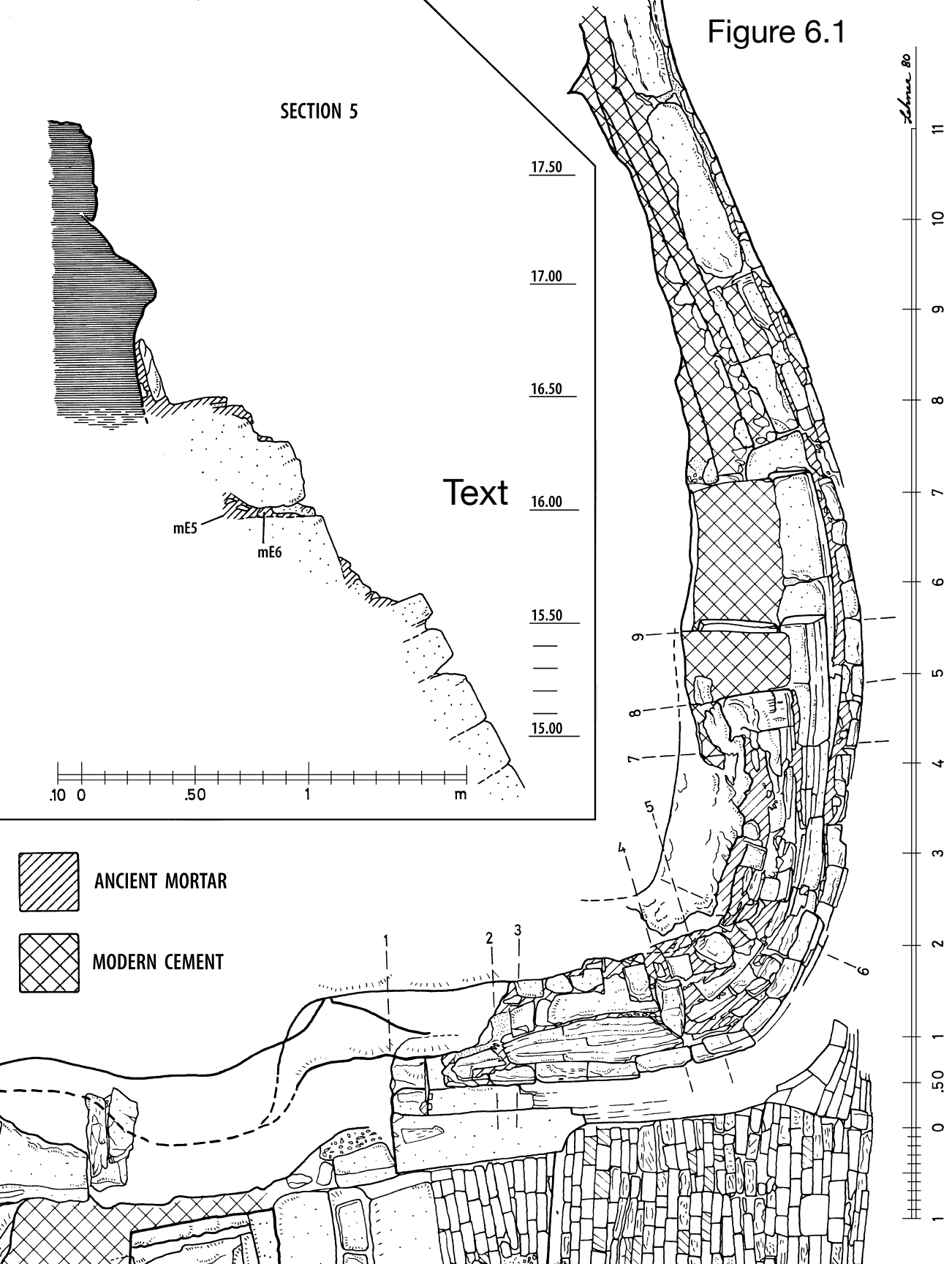
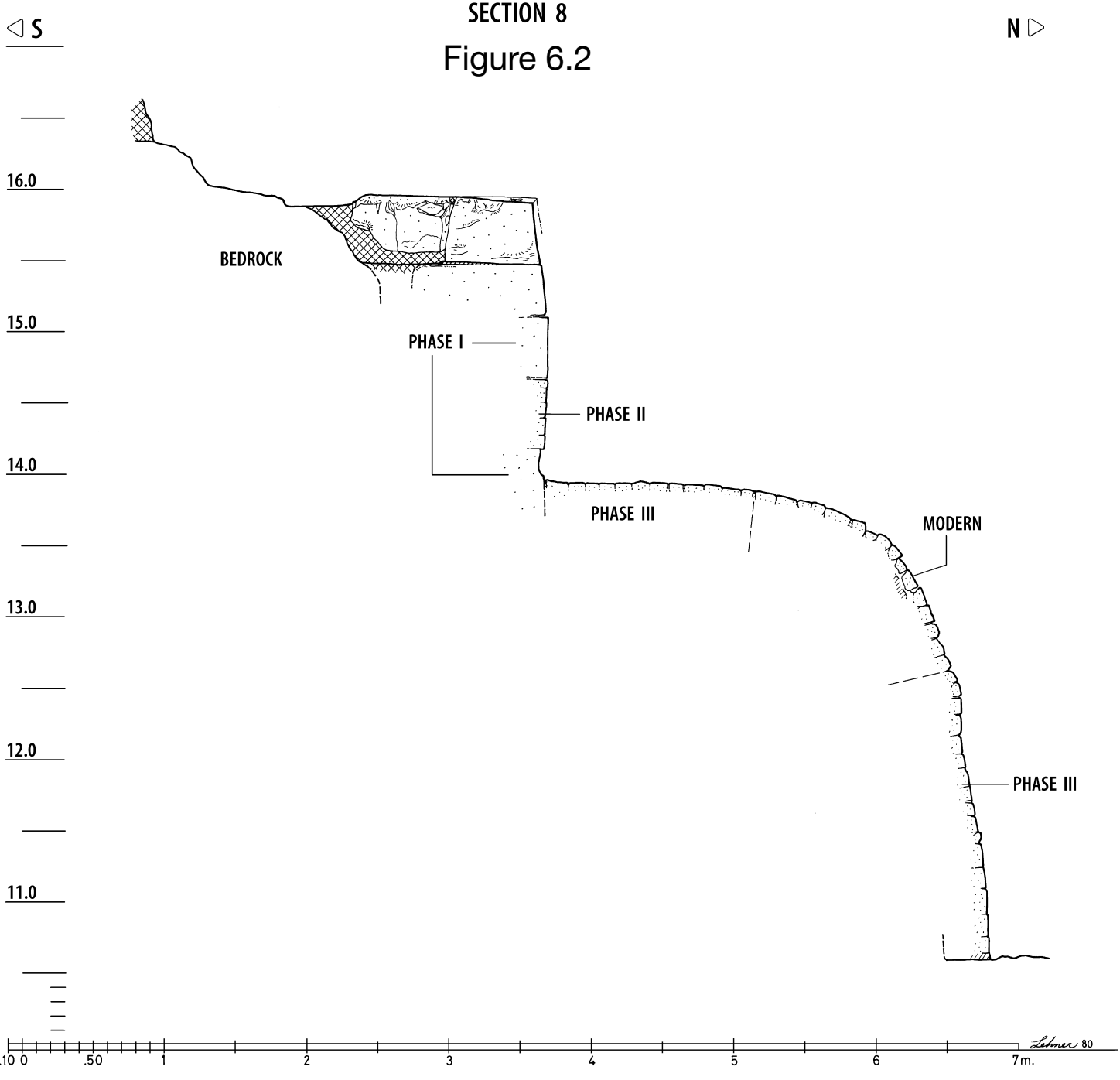


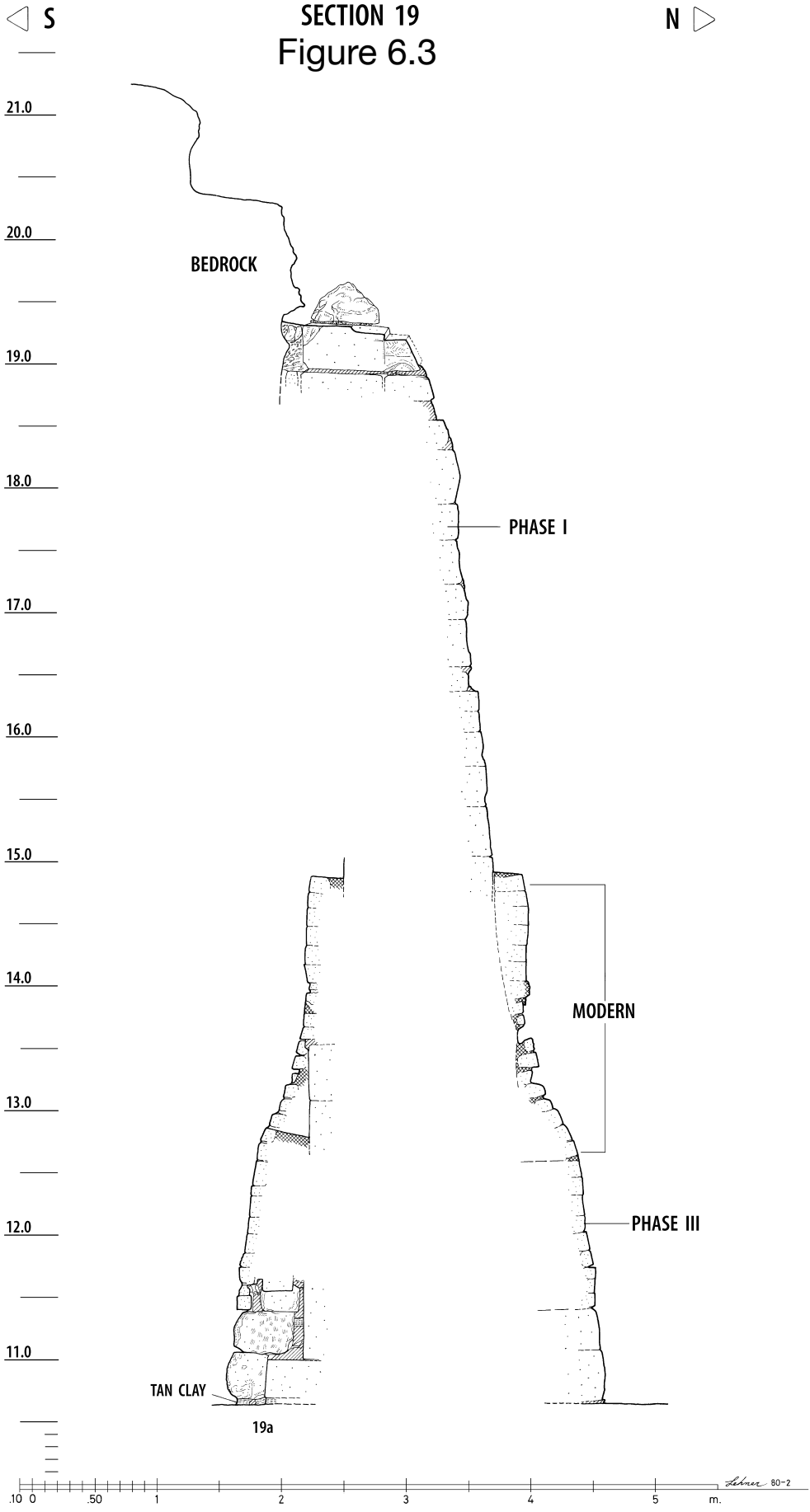
Figure 6.1


SECTION 5
17.50
17.00
16.50
16.00
15.50
15.00
mE5
mE6
.10 0
.50
1
m
Text
ANCIENT MORTAR
MODERN CEMENT
1
2
3
4
5
6
7
8
9
Lehua 80

SECTION 8

Figure 6.2




S
SECTION 19
Figure 6.3
N
21.0
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
BEDROCK
PHASE I
MODERN
PHASE III
TAN CLAY
19a
.10 0 .50 1 2 3 4 5 m.
Lehner 80-2

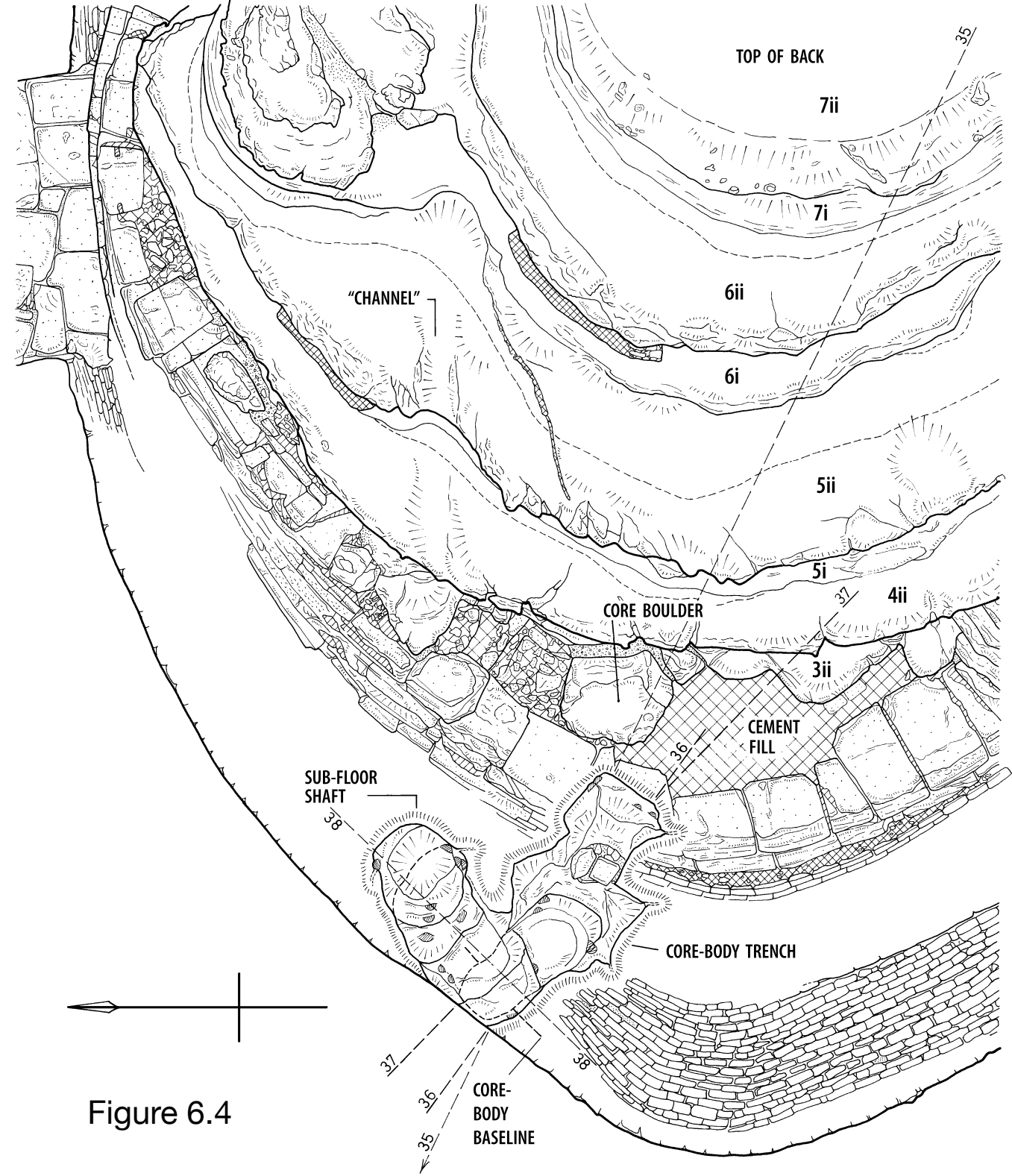

TOP OF BACK
35
7ii
7i
"CHANNEL"
6ii
6i
5ii
5i
4ii
37
CORE BOULDER
3ii
CEMENT
FILL
36
SUB-FLOOR
SHAFT
38
CORE-BODY TRENCH
37
36
35
CORE-
BODY
BASELINE
38

Figure 6.4

576.5
.50 0
5
10 m.
80
2990

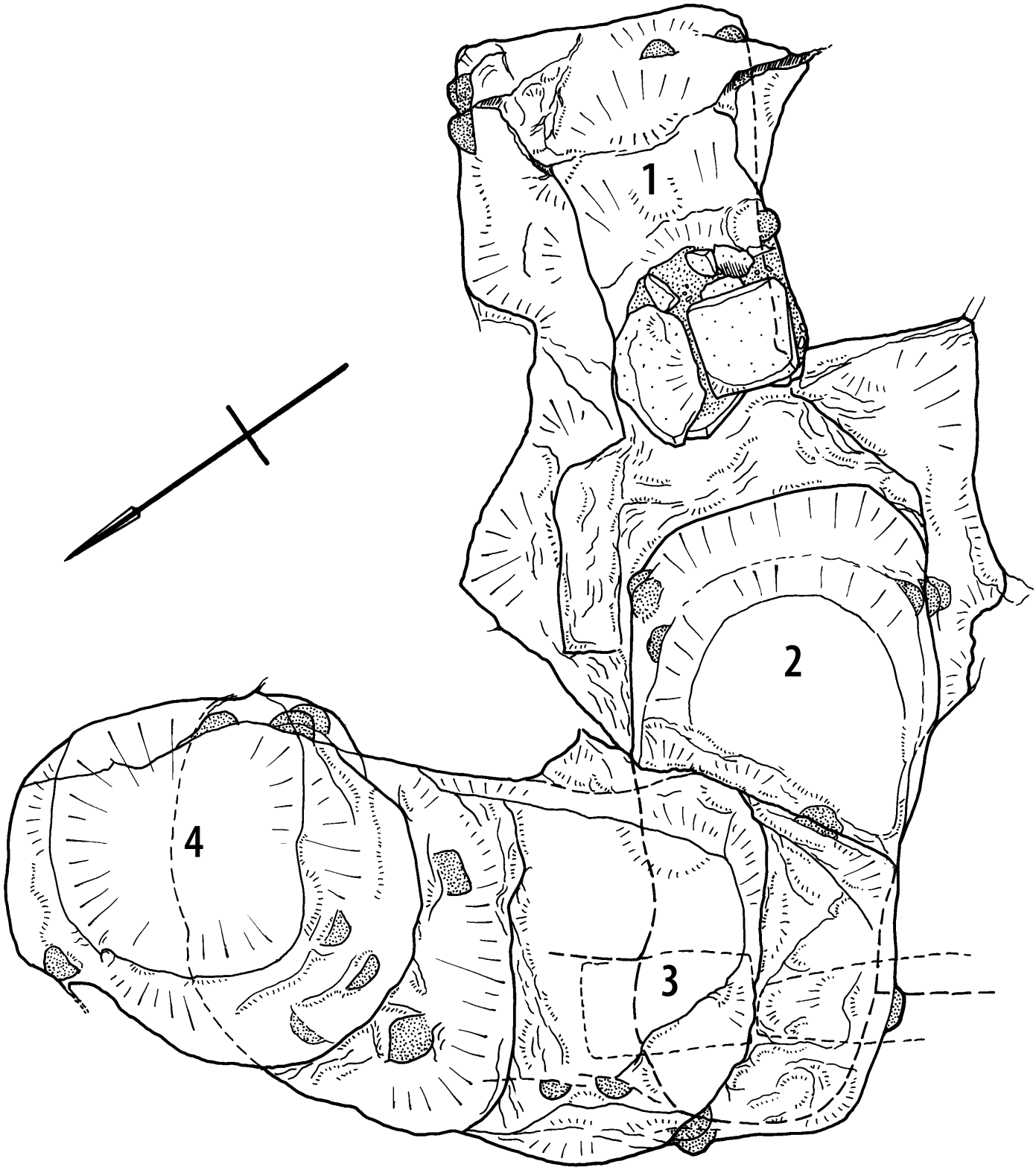
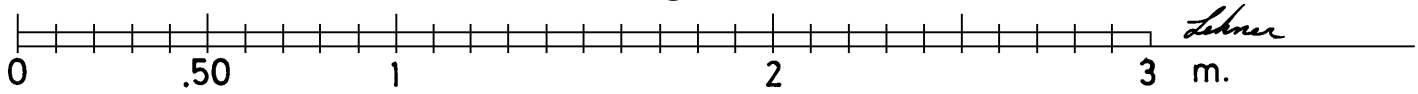


Figure 6.5



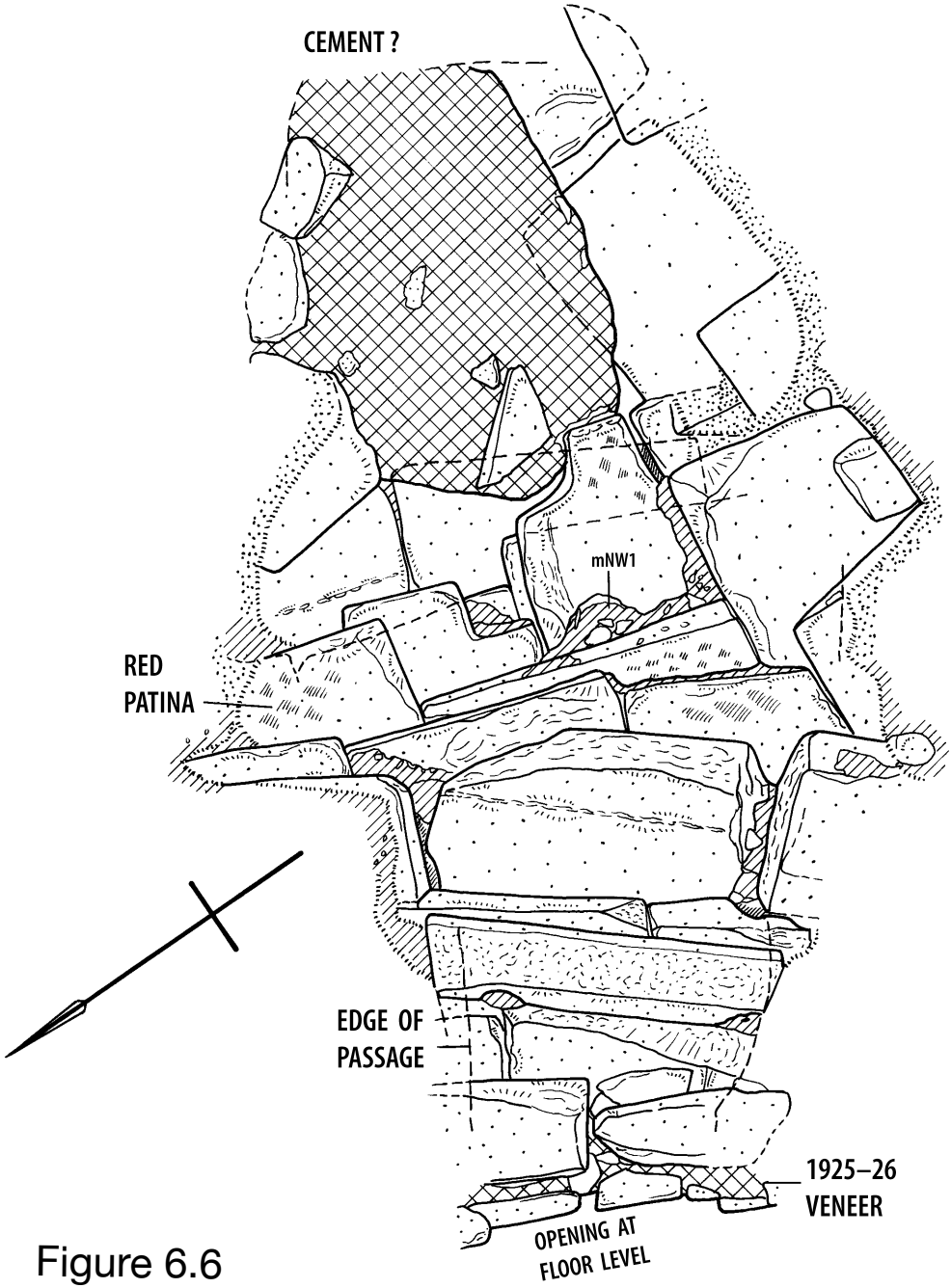
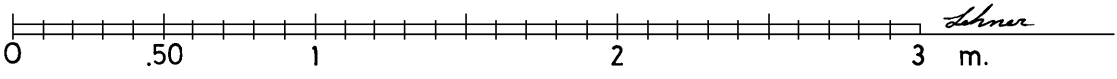

CEMENT ?
mNW1
RED
PATINA
EDGE OF
PASSAGE
1925–26
VENEER
OPENING AT
FLOOR LEVEL

Figure 6.6


Lehner
0
.50
1
2
3
m.

SECTION 37

WITH ELEVATION VIEW NE SIDE OF UPPER PASSAGE

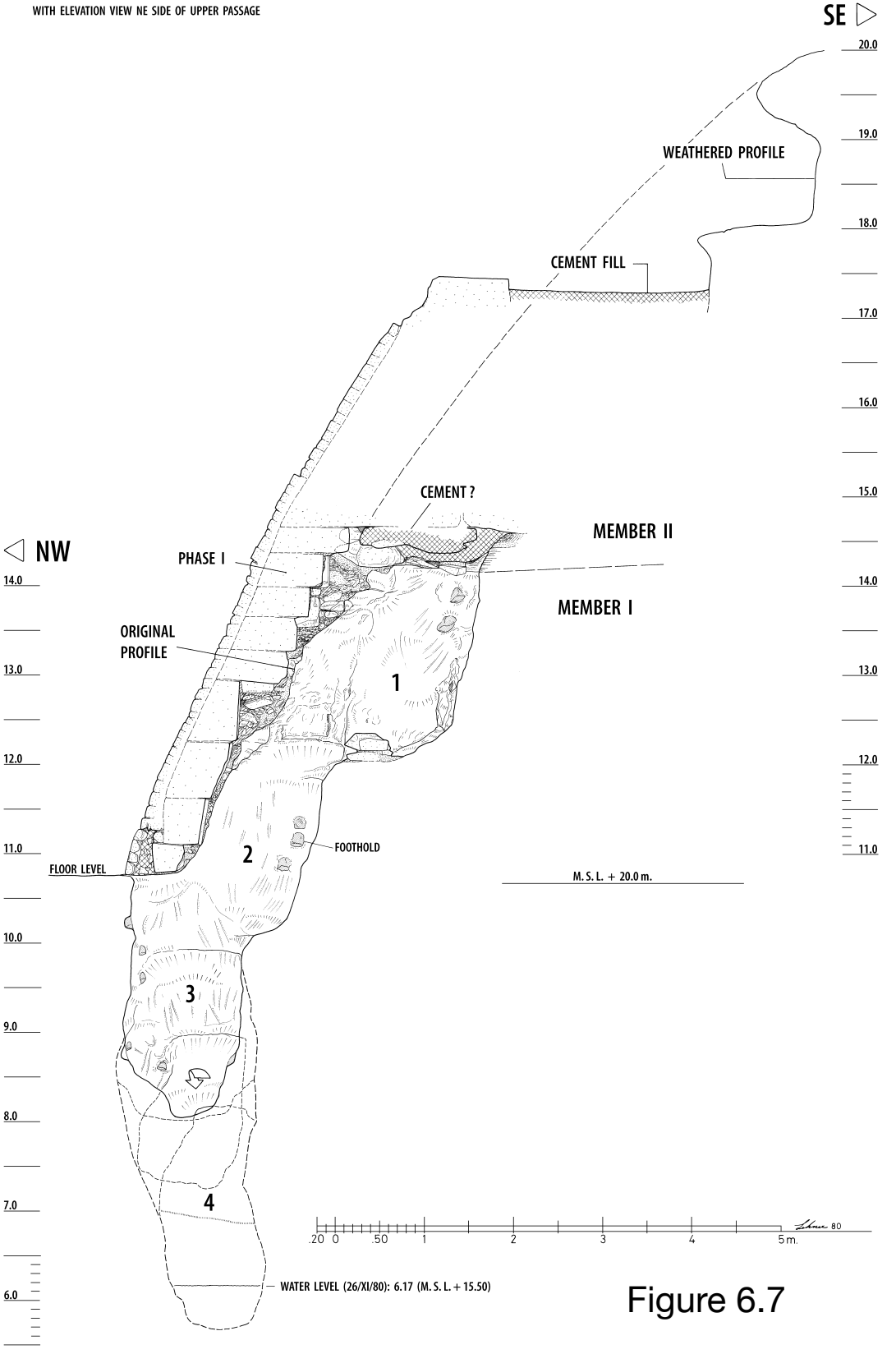


Figure 6.7

S

SECTION - ELEVATION 21

N

Figure 7.1

22.0

21.0

20.0

19.0

18.0

17.0

16.0

15.0

14.0

13.0

12.0

11.0

BEDROCK

BEDROCK CORE BOULDER

PHASE I

PHASE II

MODERN

PHASE III

MORTAR

BEDROCK

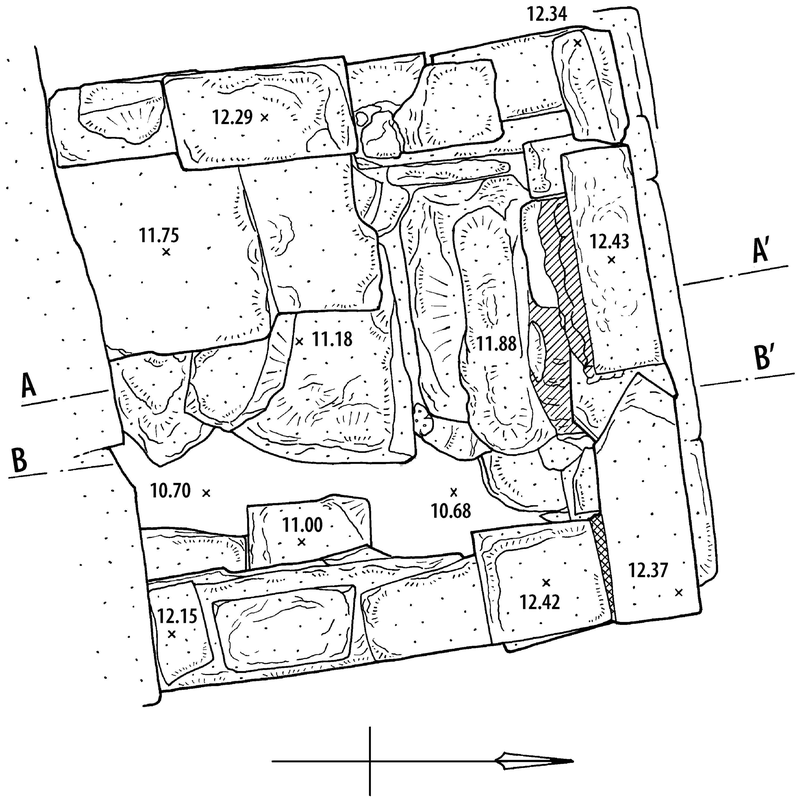
TAN CLAY

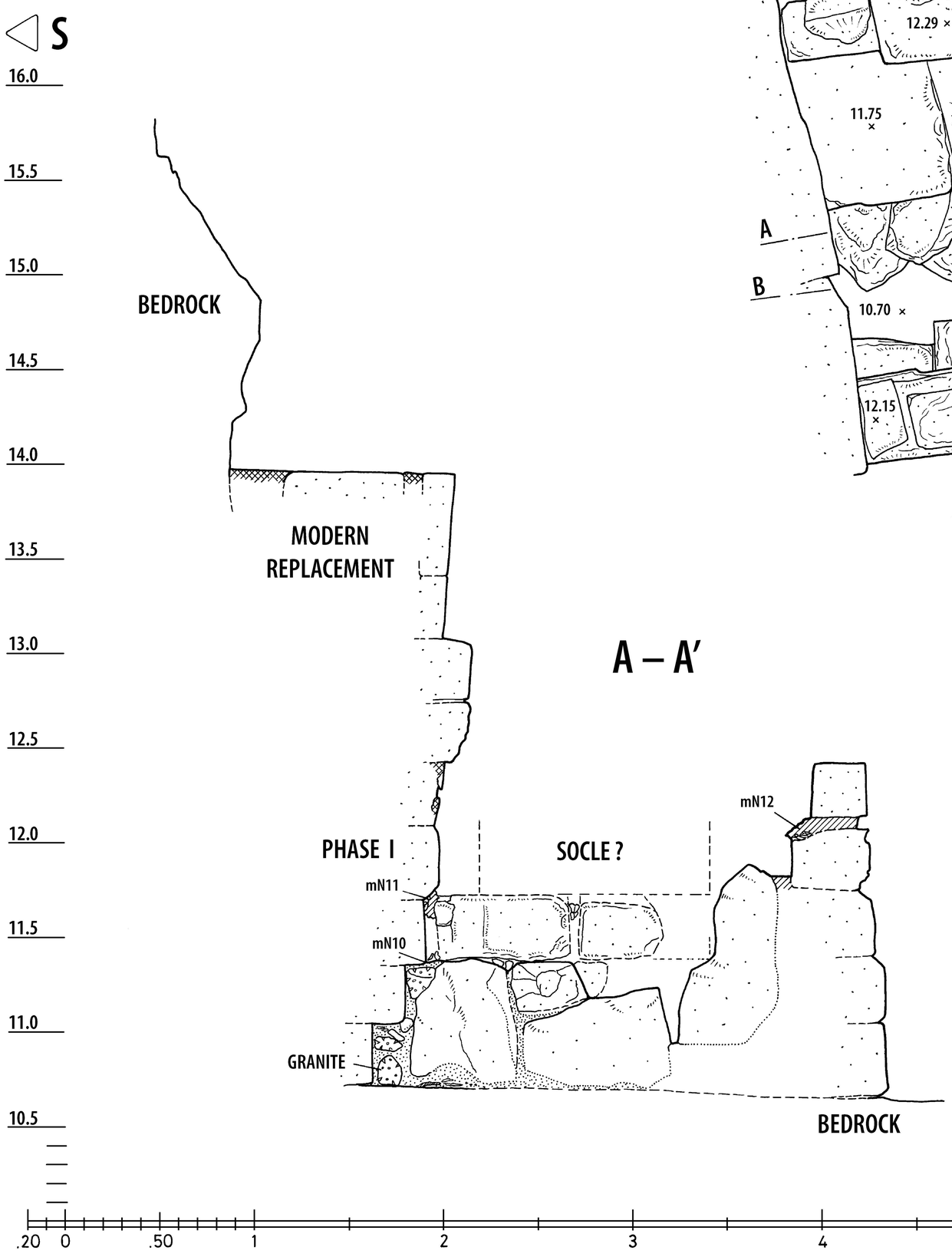
21a

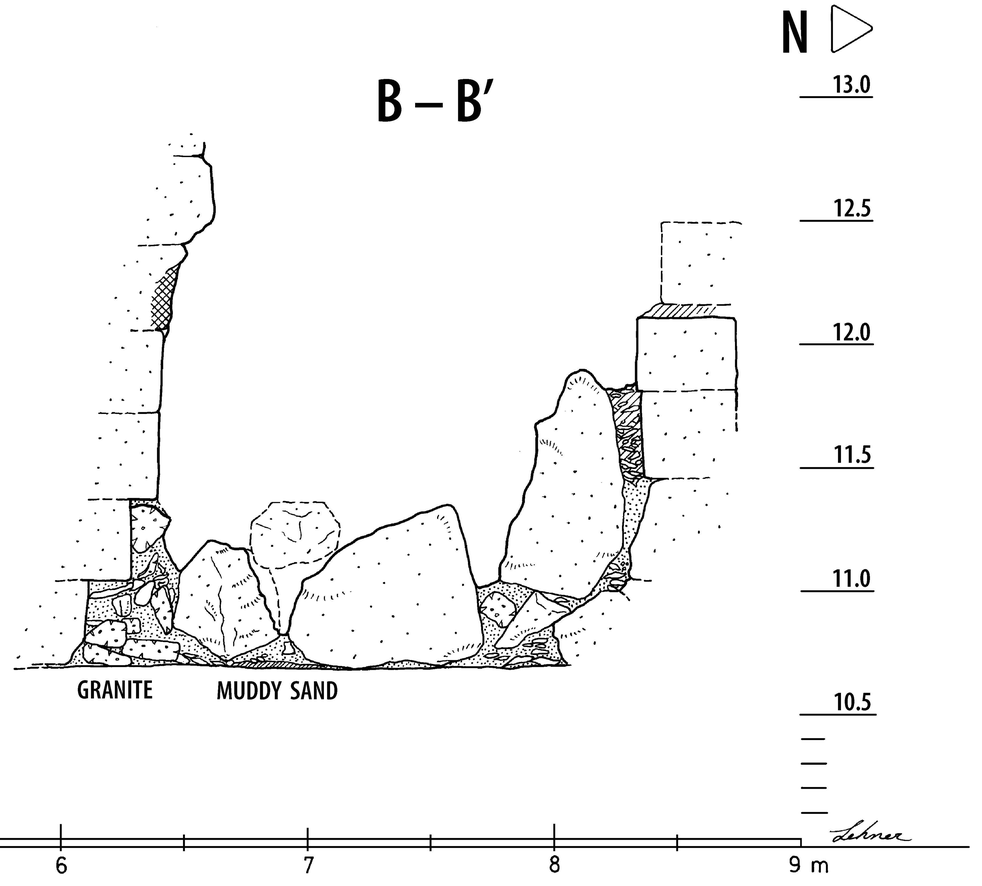
.10 0 .50 1 2 3 4 5 6 7 m.

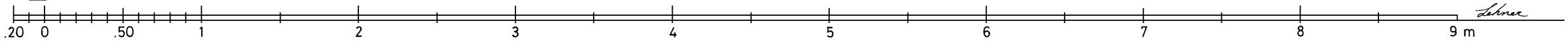
Lehner 80-2

Figure 7.2


12.34
12.29
11.75
12.43
A′
B′
11.18
11.88
A
B
10.70
10.68
11.00
12.37
12.42
12.15


S
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
BEDROCK
MODERN
REPLACEMENT
A – A′
PHASE I
SOCLE ?
mN12
mN11
mN10
GRANITE
BEDROCK


N
13.0
12.5
12.0
11.5
11.0
10.5
B – B′
GRANITE
MUDDY SAND


.20
0
.50
1
2
3
4
5
6
7
8
9 m

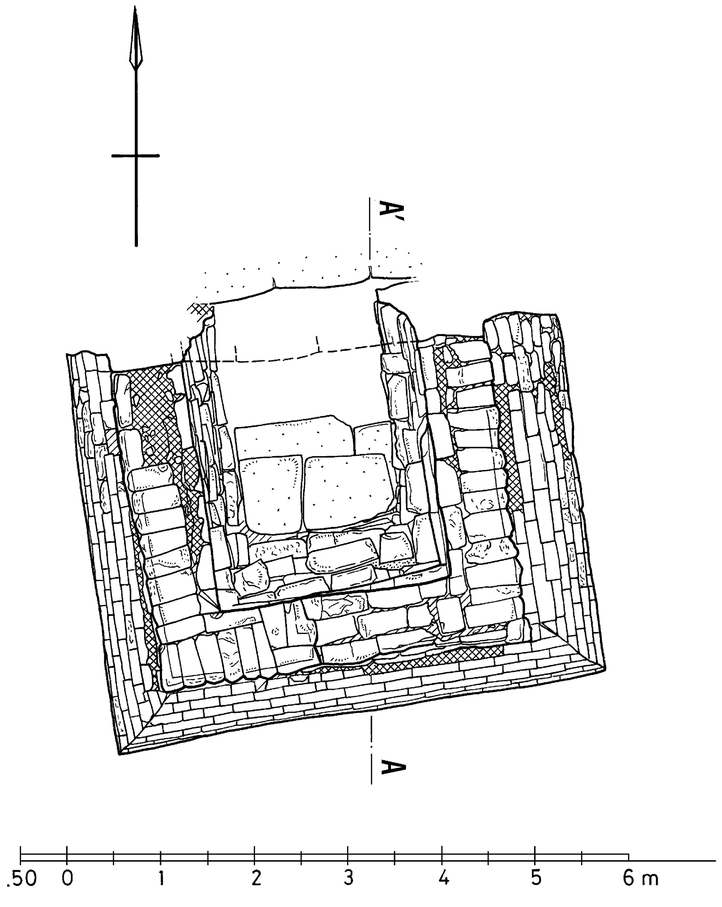
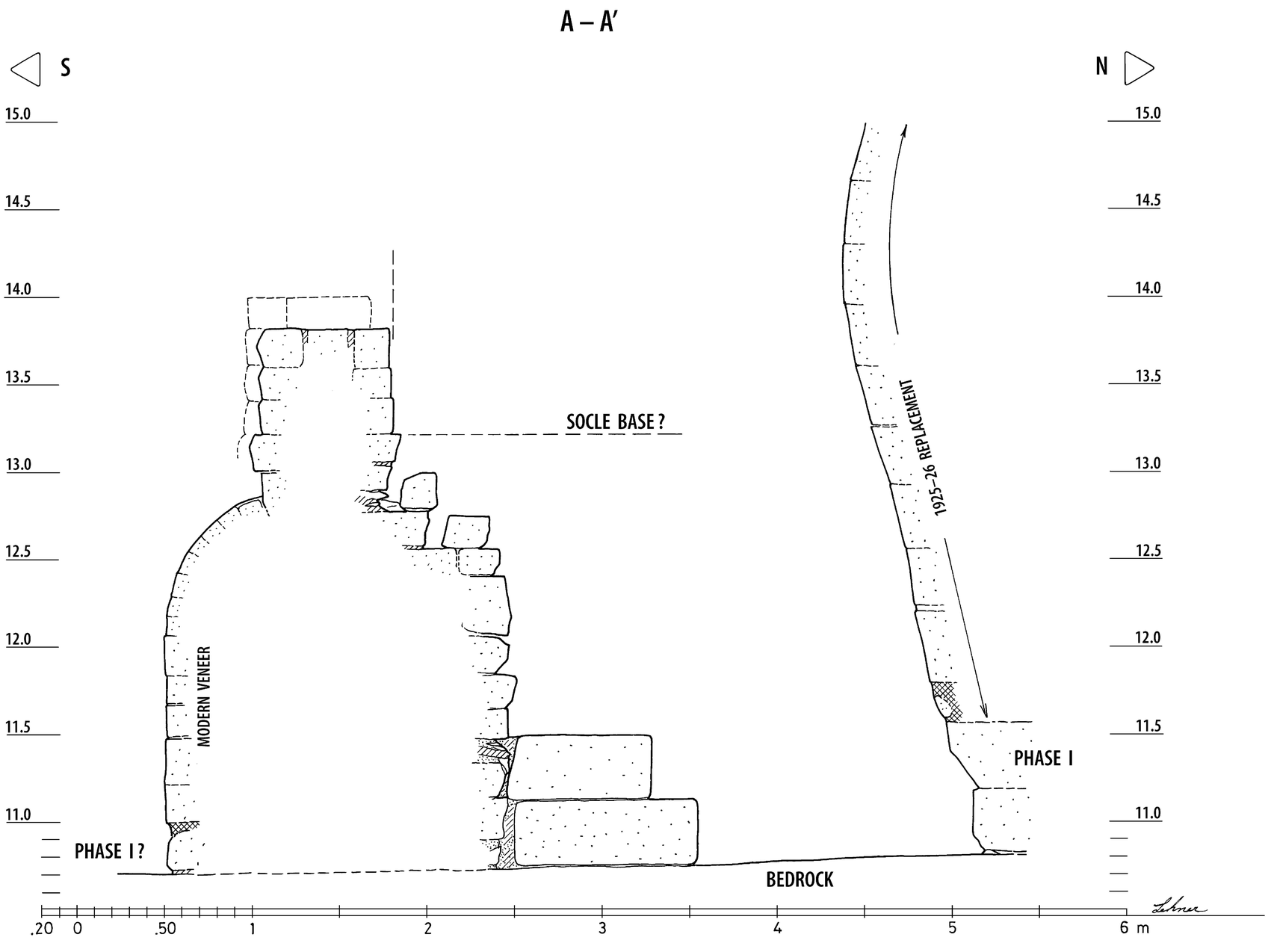

A'
A
.50 0 1 2 3 4 5 6 m

Figure 7.3


A – A'
S
N
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
SOCLE BASE?
MODERN VENEER
1925–26 REPLACEMENT
PHASE I
PHASE I?
BEDROCK
.20 0 .50 1 2 3 4 5 6 m

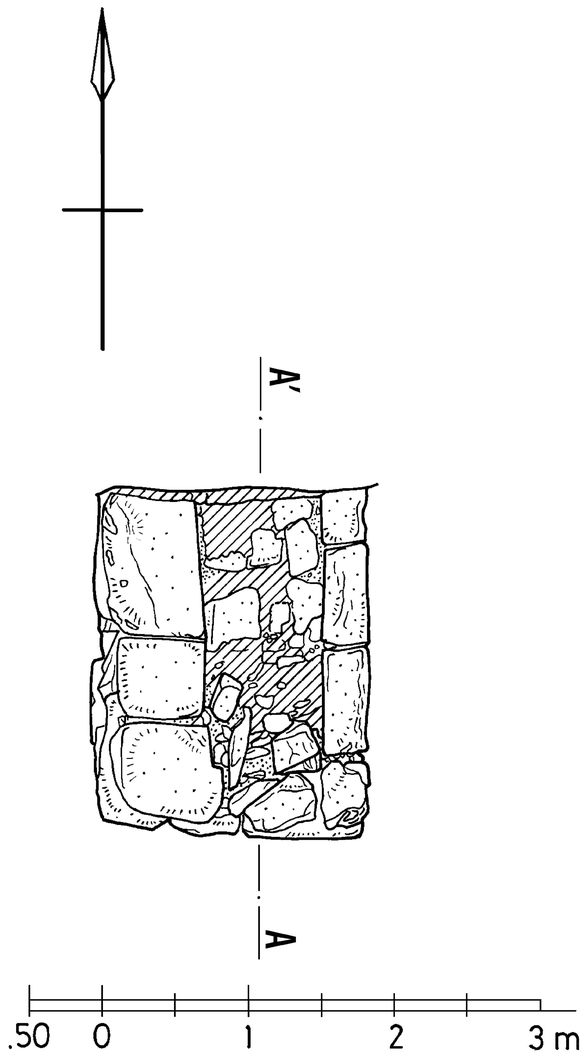


Figure 7.4

A – A'

S

N

13.5

13.0

12.5

12.0

11.5

11.0

MODERN VENEER

PHASE I

BEDROCK

.20 0 .50 1 2 3 4 m

Figure 8.1

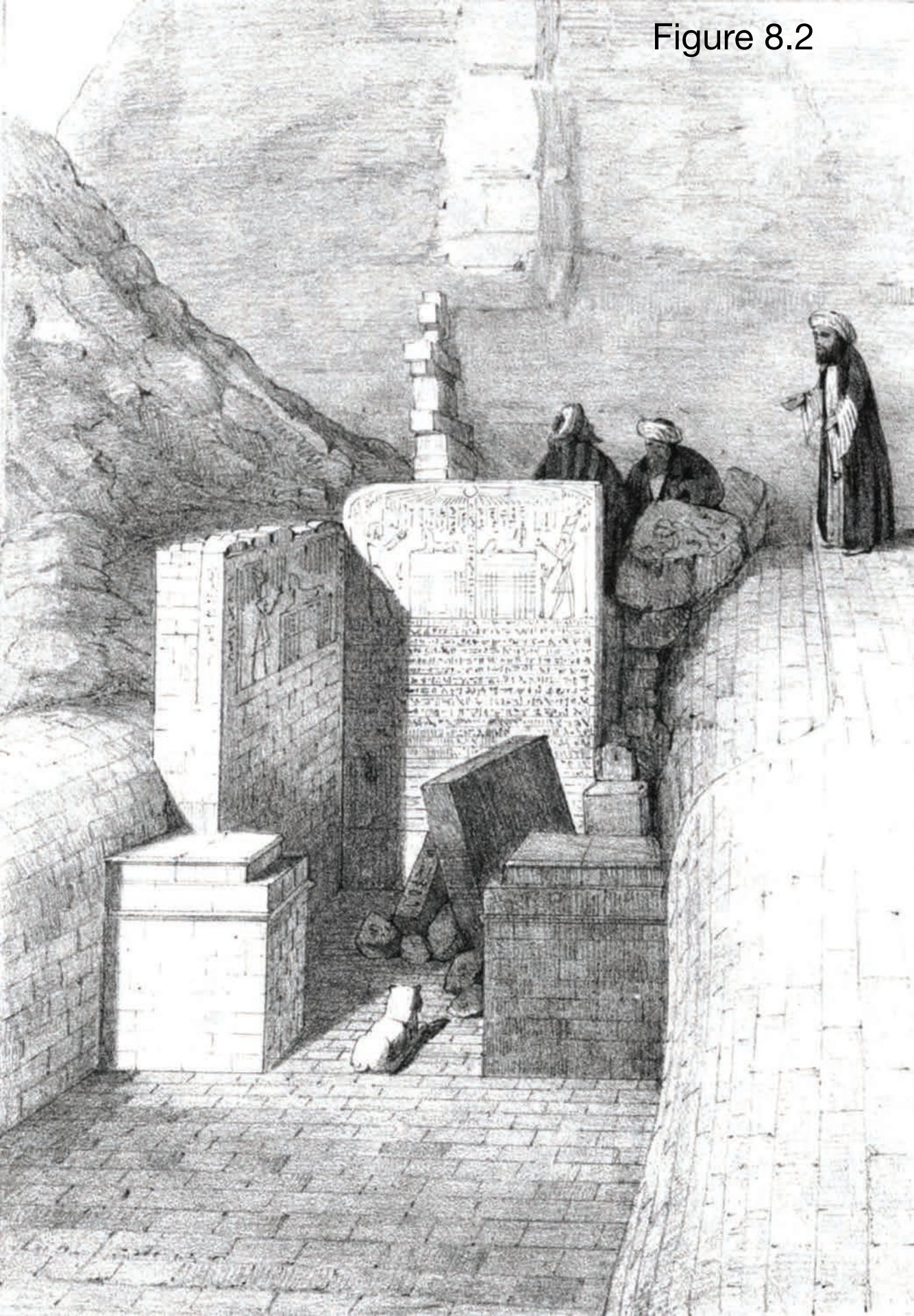
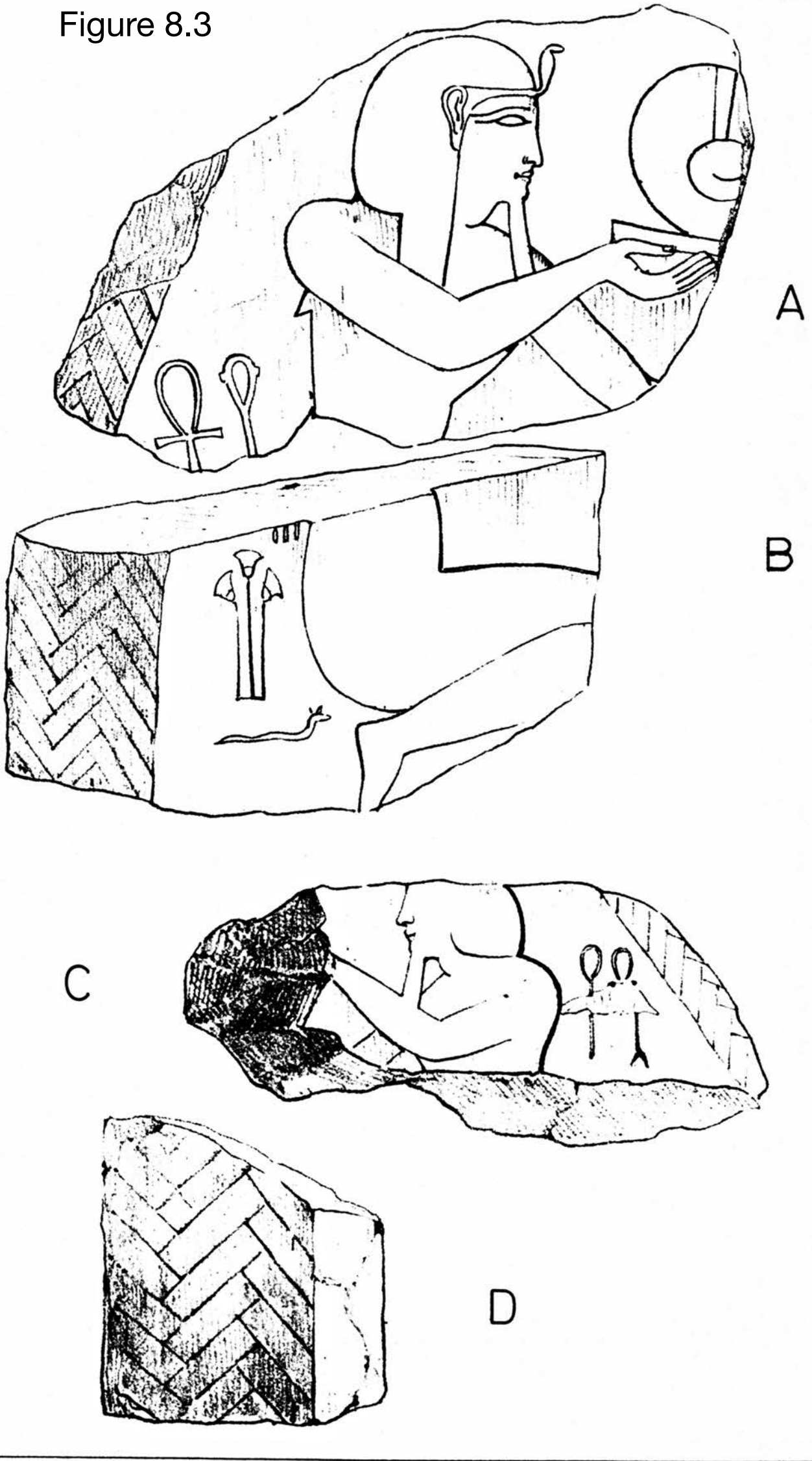


Figure 8.2

Figure 8.3



H. Salt, del.

FRAGMENTS OF THE BEARD OF THE SPHINX.

Figure 8.4

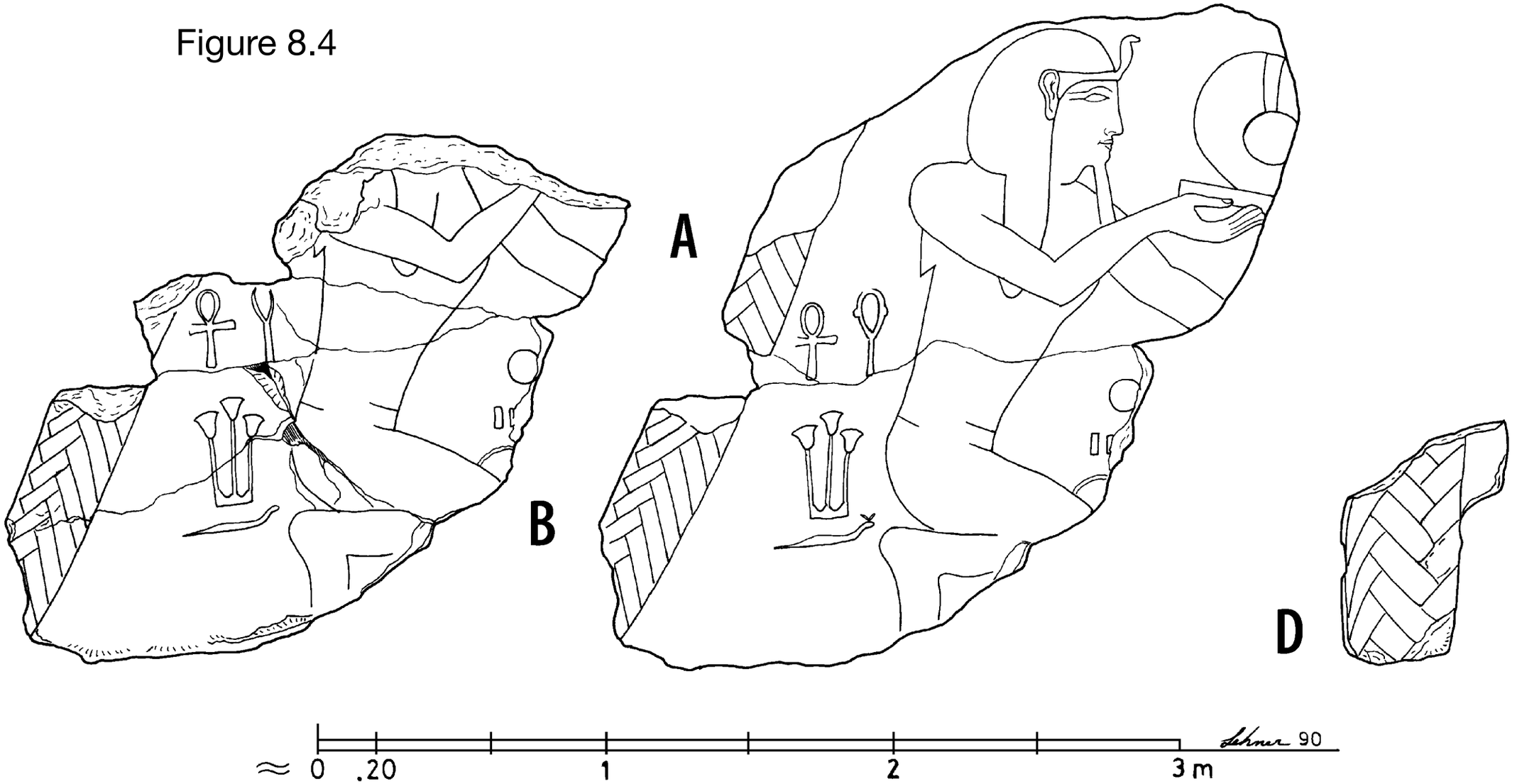


Figure 8.5

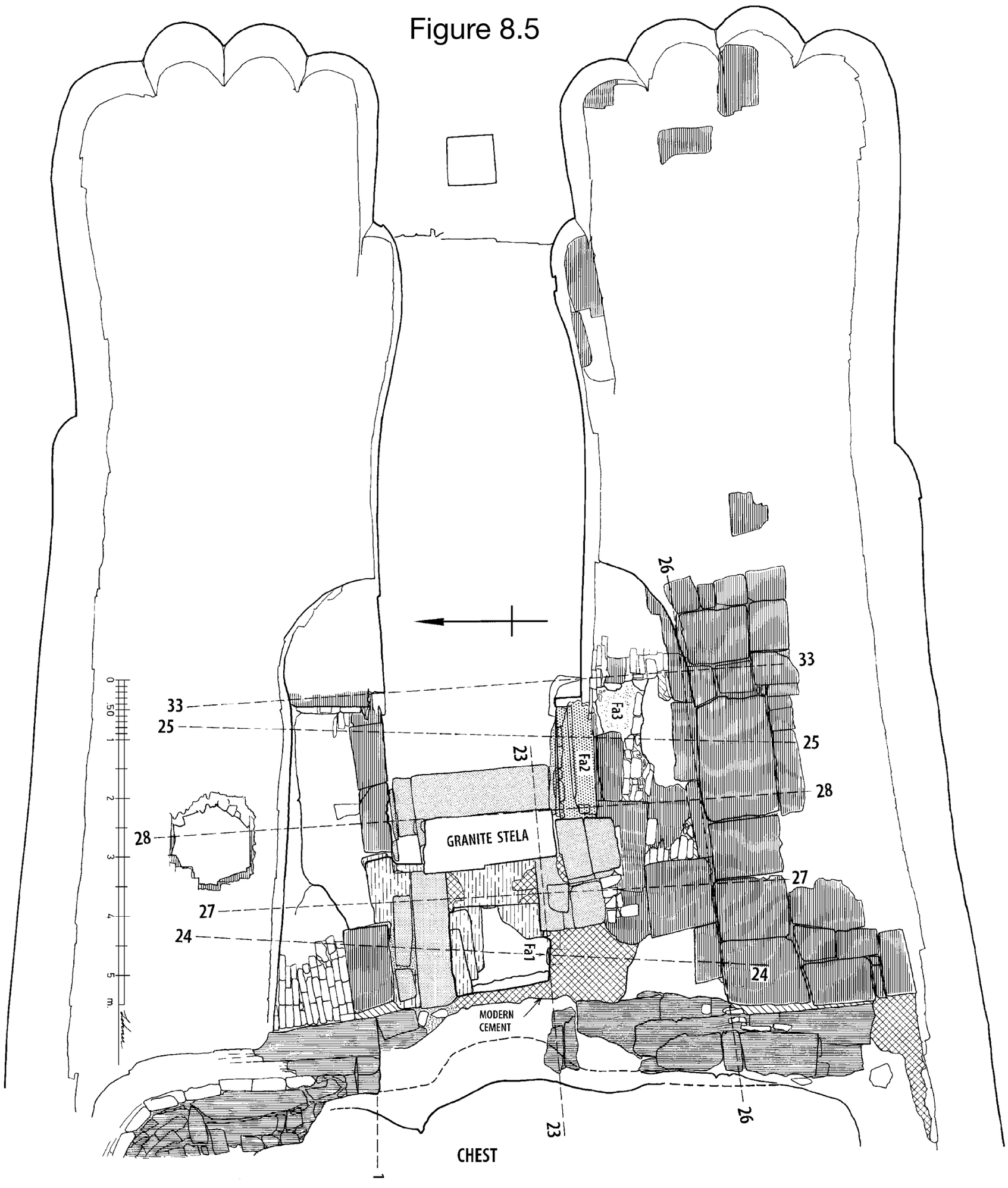
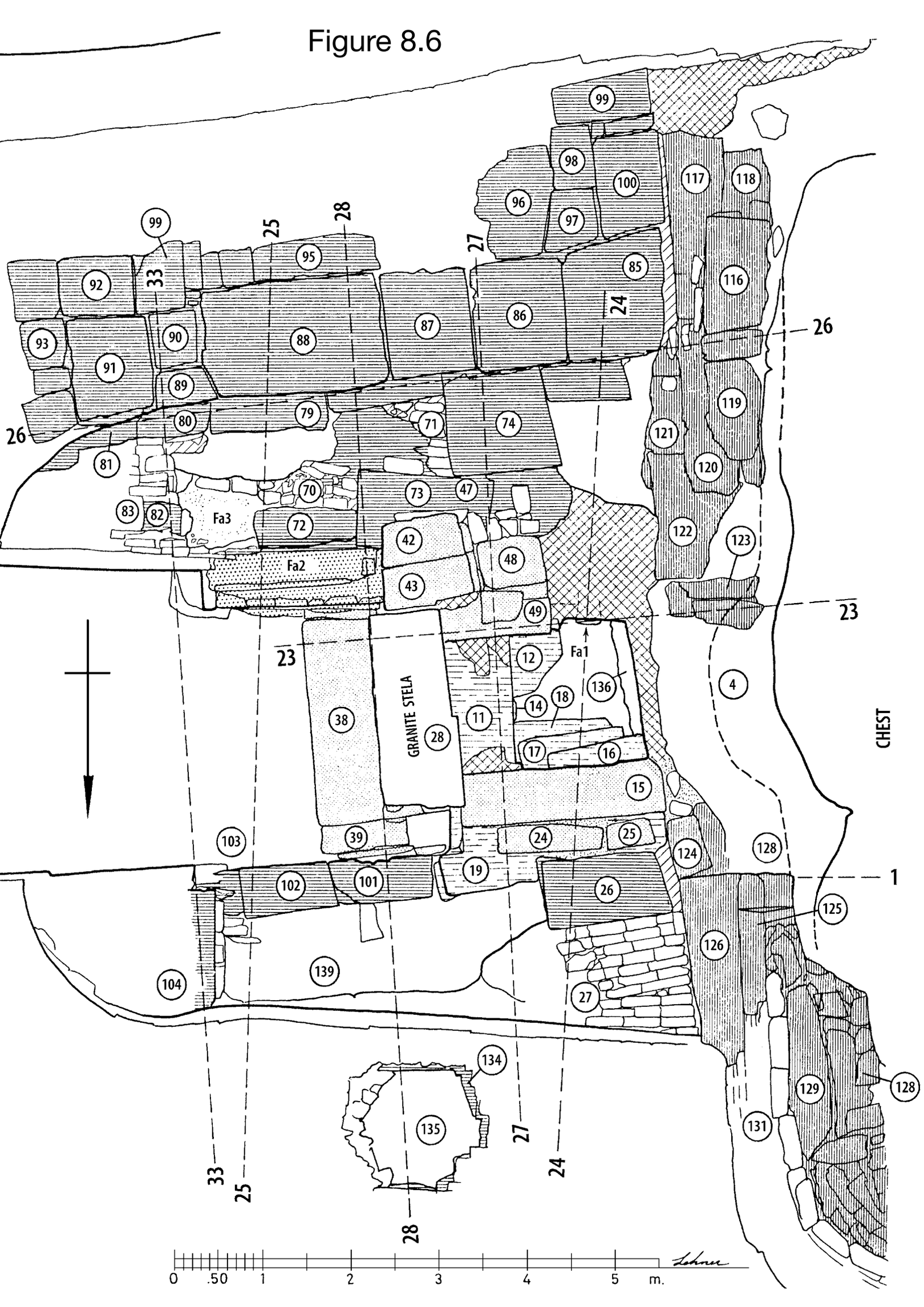

26
33
25
23
Fa3
Fa2
28
GRANITE STELA
27
24
Fa1
MODERN CEMENT
CHEST
1
0 .50 1 2 3 4 5 m.
D
E
F
G
H

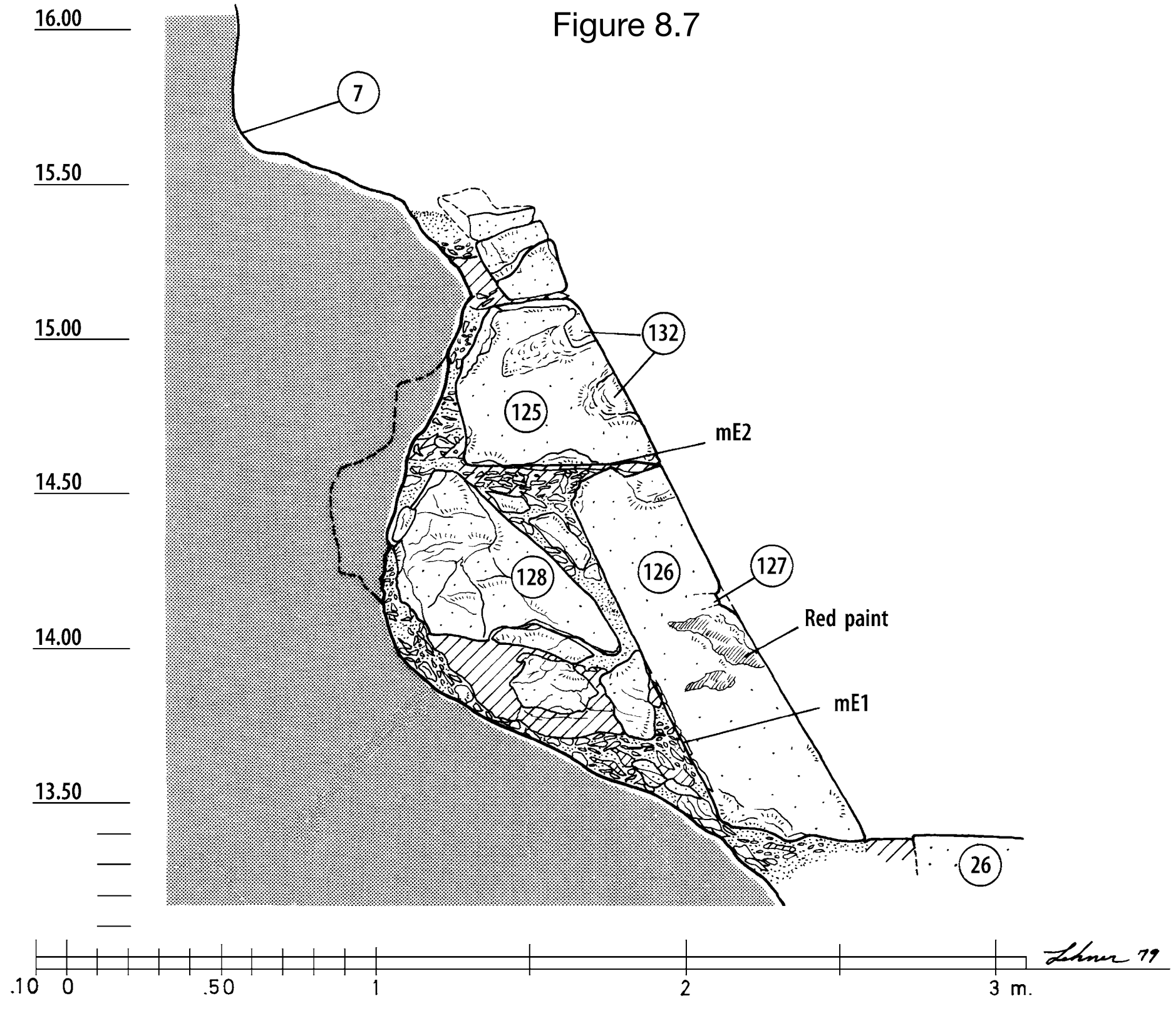
Figure 8.6

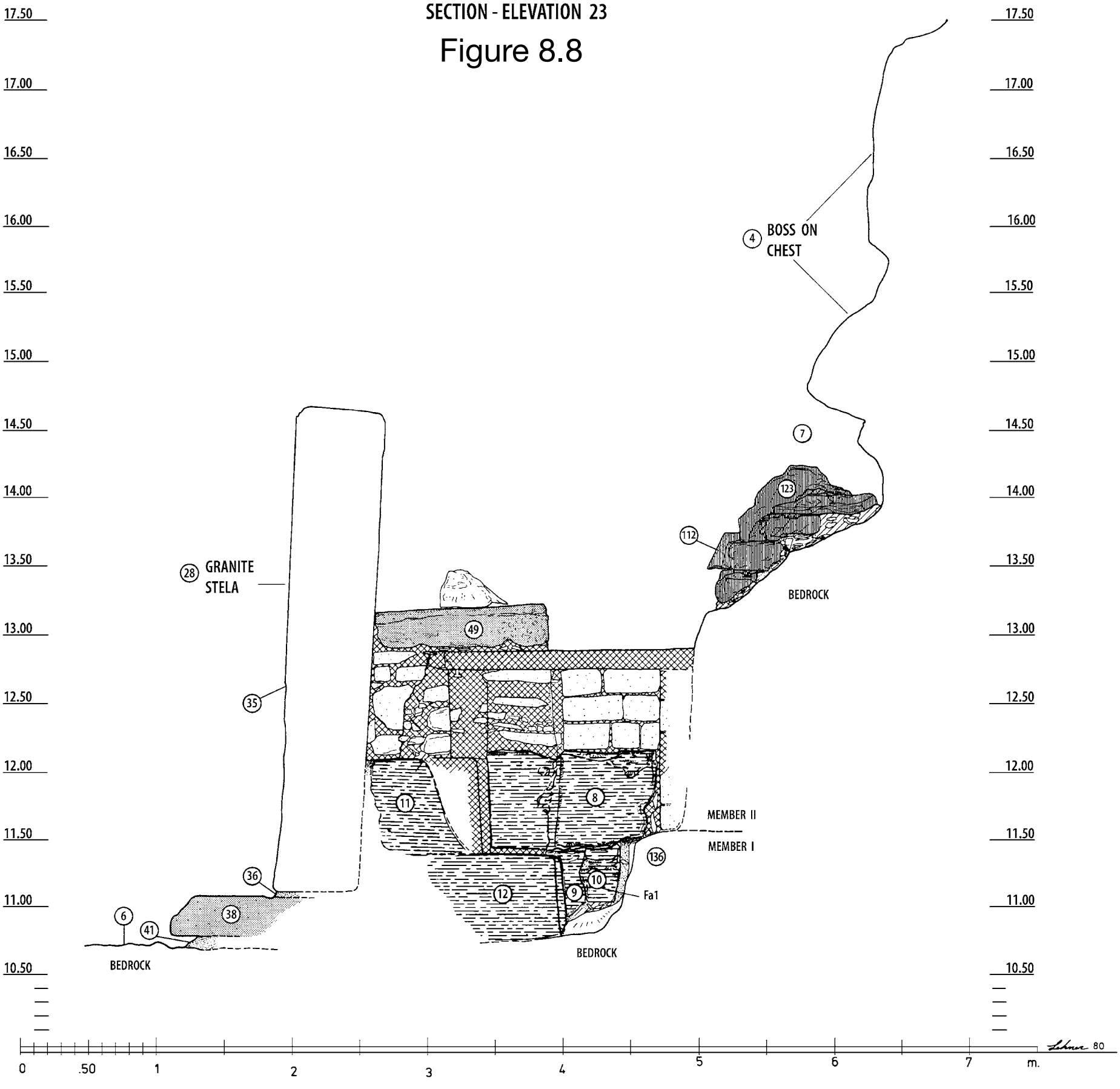


GRANITE STELA
CHEST
Fa1
Fa2
Fa3
1
23
24
25
26
27
28
33
0 .50 1 2 3 4 5 m.

SECTION 1

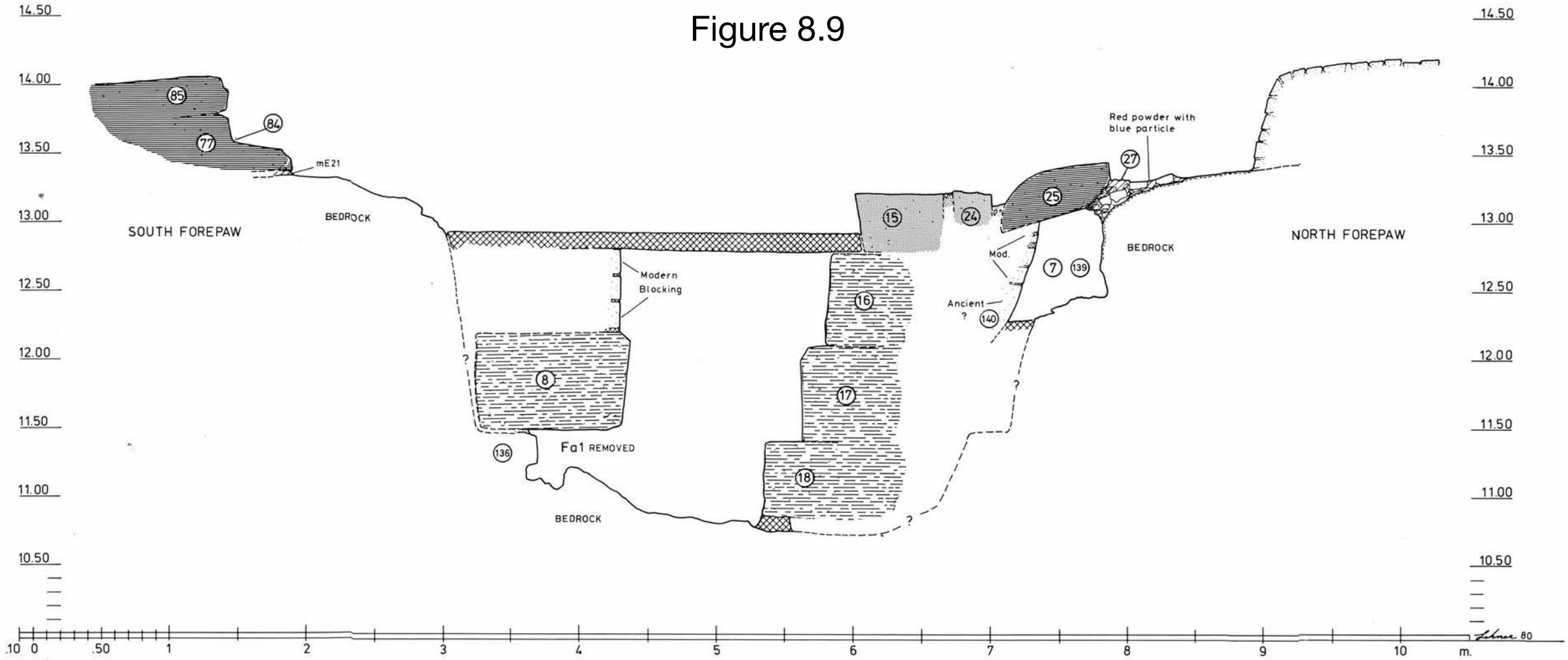
Figure 8.7




SECTION - ELEVATION 23
Figure 8.8
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
4 BOSS ON CHEST
7
123
112
BEDROCK
28 GRANITE STELA
49
35
11
8
MEMBER II
MEMBER I
136
10
9
12
Fa1
36
38
6
41
BEDROCK
BEDROCK
0
.50
1
2
3
4
5
6
7
m.
Schnur 80

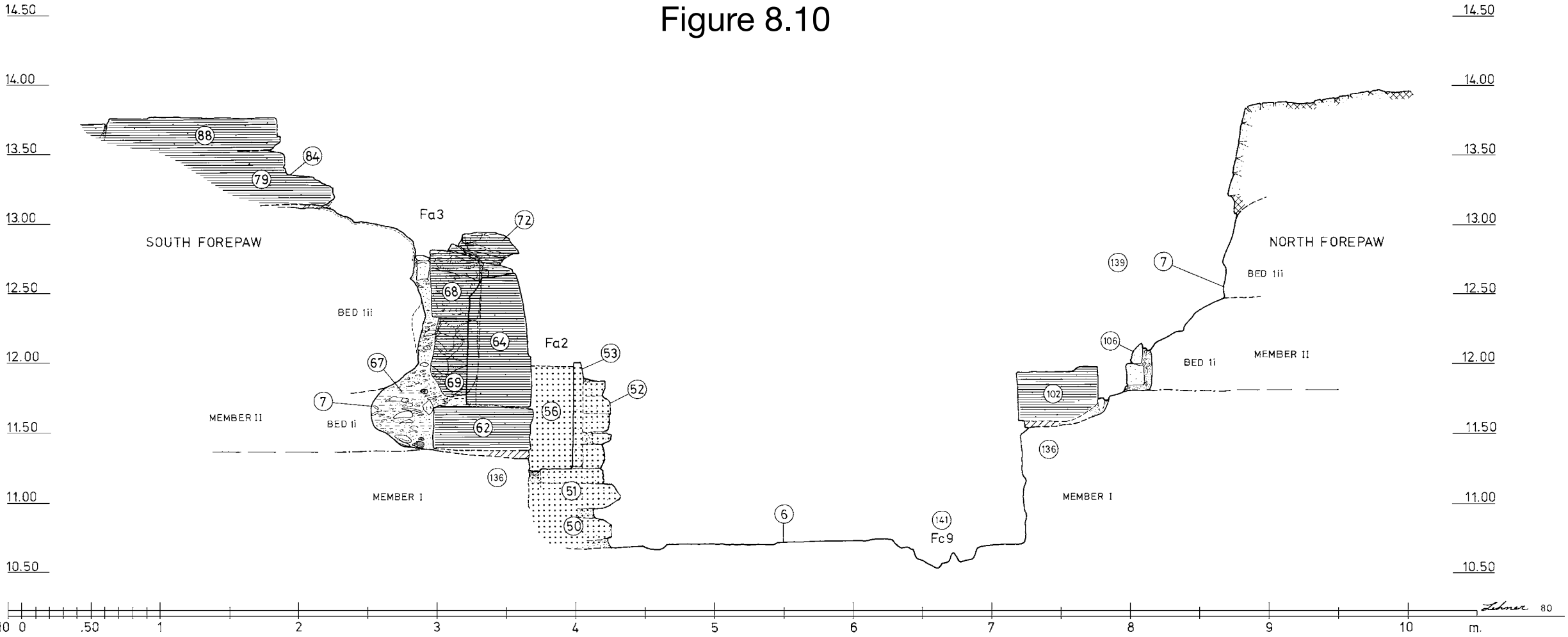
SECTION 24

Figure 8.9



SECTION 25

Figure 8.10



SECTION-ELEVATION 26

Figure 8.11

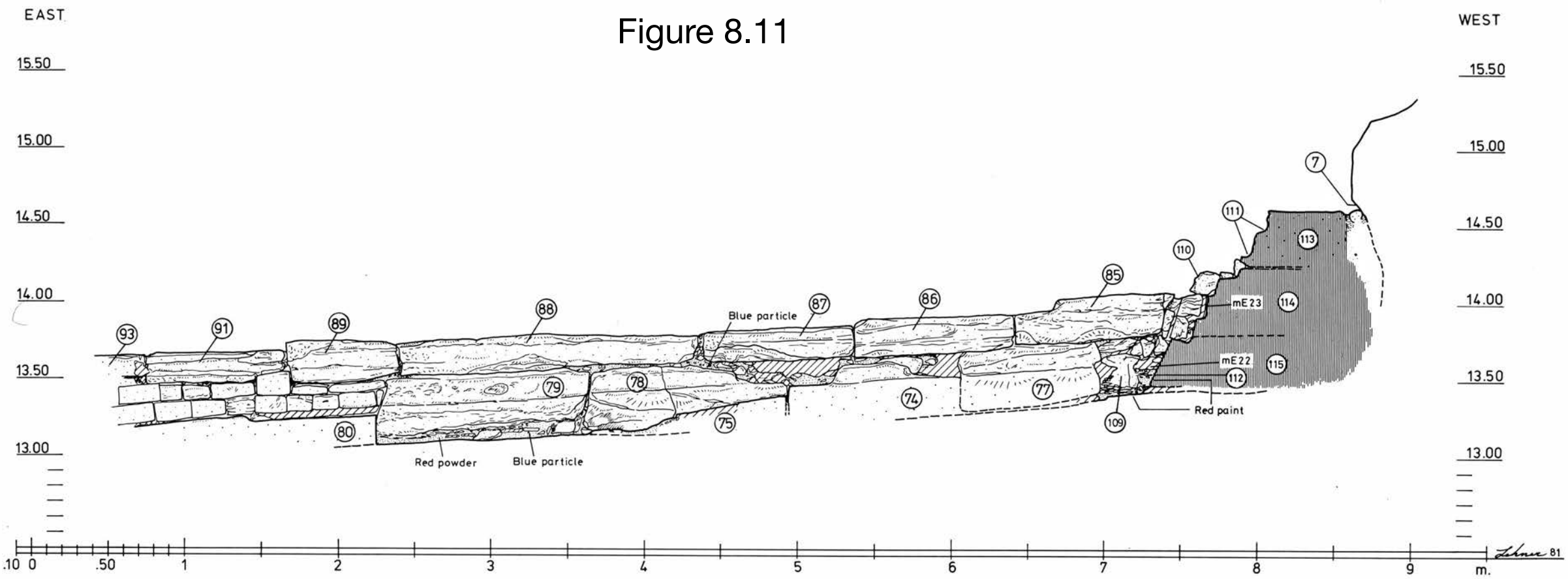


Figure 8.12

SECTION-ELEVATION 27

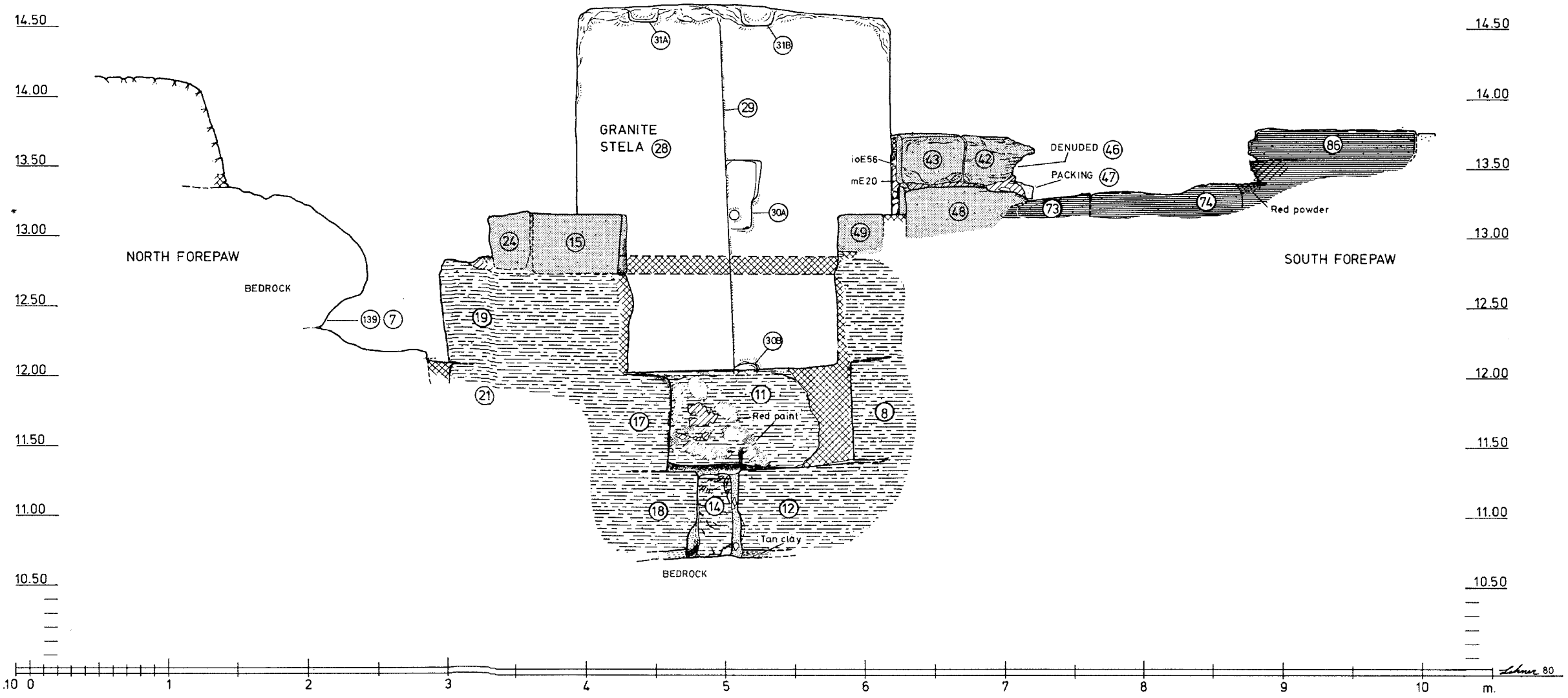


Figure 8.13

SECTION-ELEVATION 28

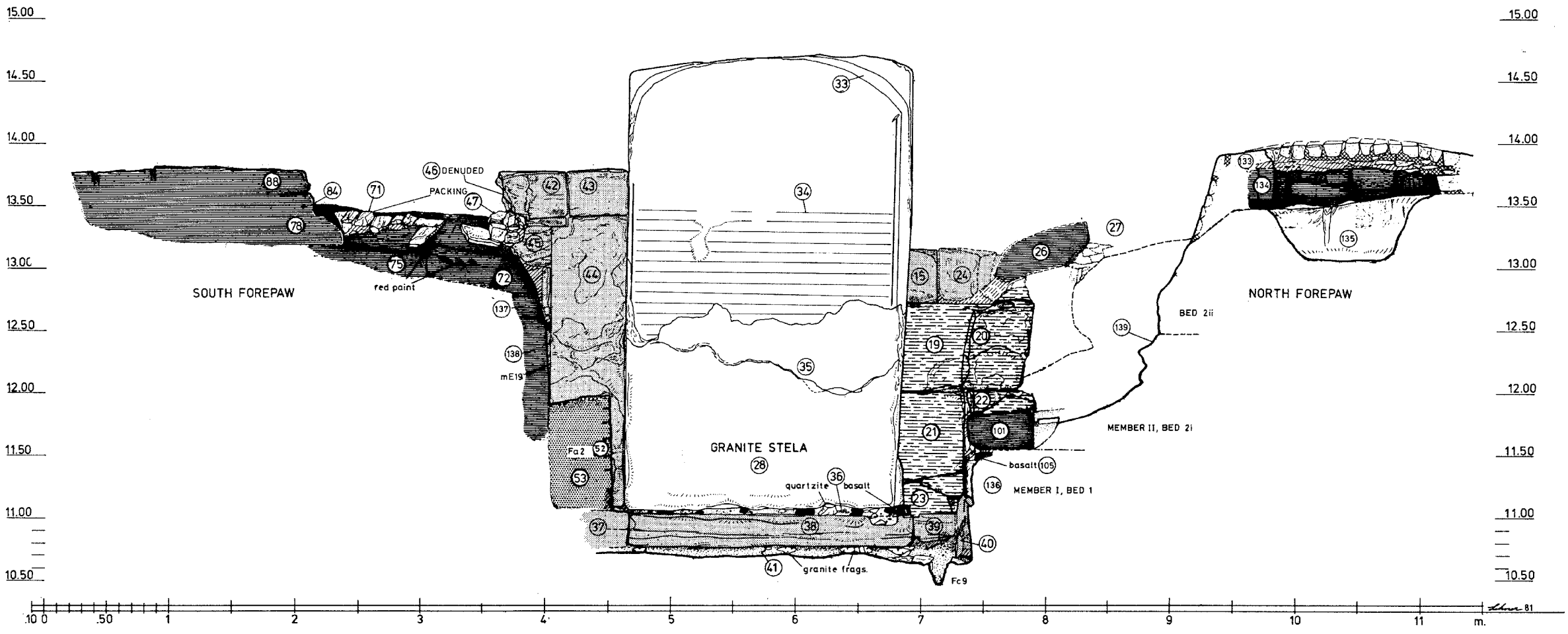
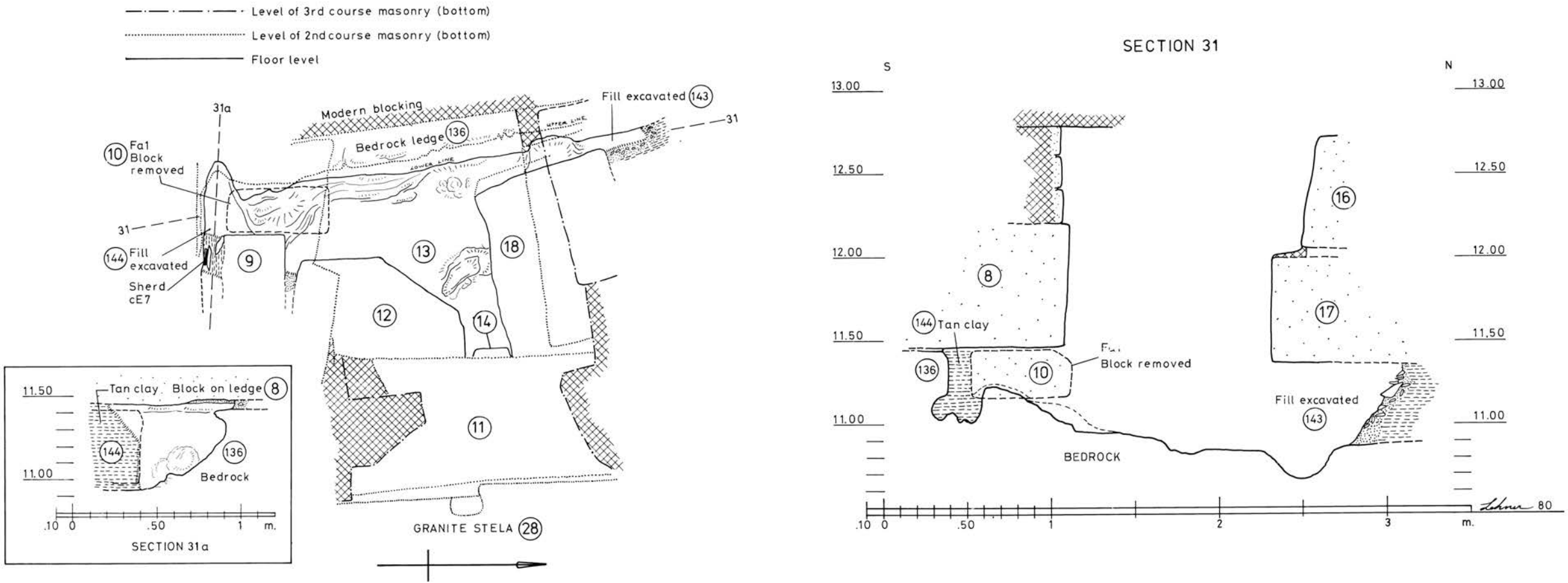


Figure 8.14


Level of 3rd course masonry (bottom)
Level of 2nd course masonry (bottom)
Floor level
31a
Modern blocking
Fill excavated (143)
31
Bedrock ledge (136)
(10) Fa1 Block removed
31
(144) Fill excavated
Sherd cE7
9
13
18
12
14
11
GRANITE STELA (28)
11.50
Tan clay
Block on ledge (8)
(144)
(136)
11.00
Bedrock
.10 0 .50 1 m.
SECTION 31a
SECTION 31
S
N
13.00
12.50
12.00
11.50
11.00
8
16
17
(144) Tan clay
(136)
(10) Block removed
Fill excavated (143)
BEDROCK
.10 0 .50 1 2 3 m.
Lehner 80

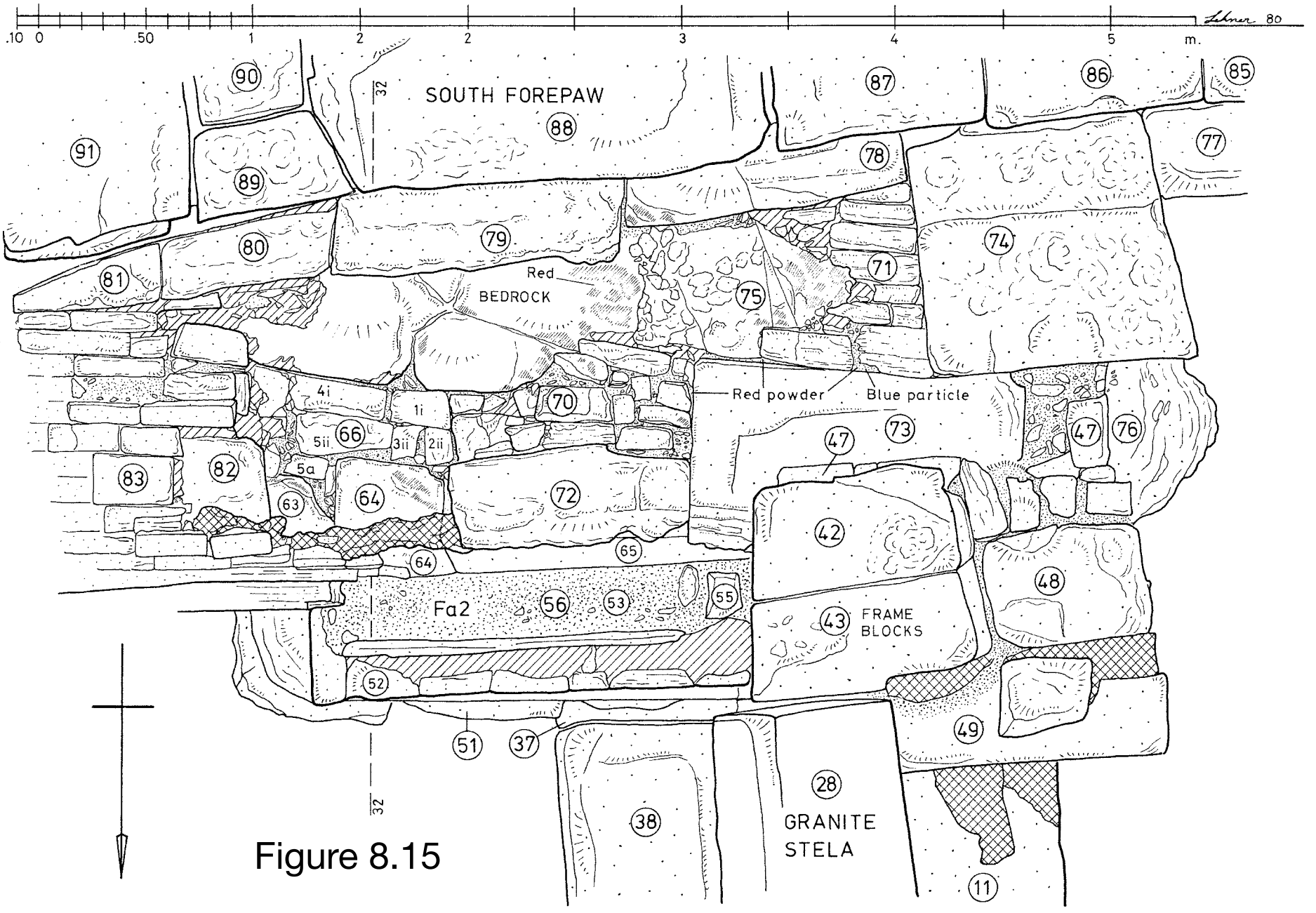

.10 0 .50 1 2 2 3 4 5 m.
Lehner 80
SOUTH FOREPAW
BEDROCK
Red
Red powder
Blue particle
FRAME BLOCKS
GRANITE STELA
Fa2
4i
1i
5ii
3ii
2ii
5a
90
91
89
88
87
86
85
78
77
80
79
74
81
71
75
70
66
73
47
76
83
82
63
64
72
42
65
48
56
53
55
43
52
49
51
37
28
38
11
32

Figure 8.15

Figure 8.16

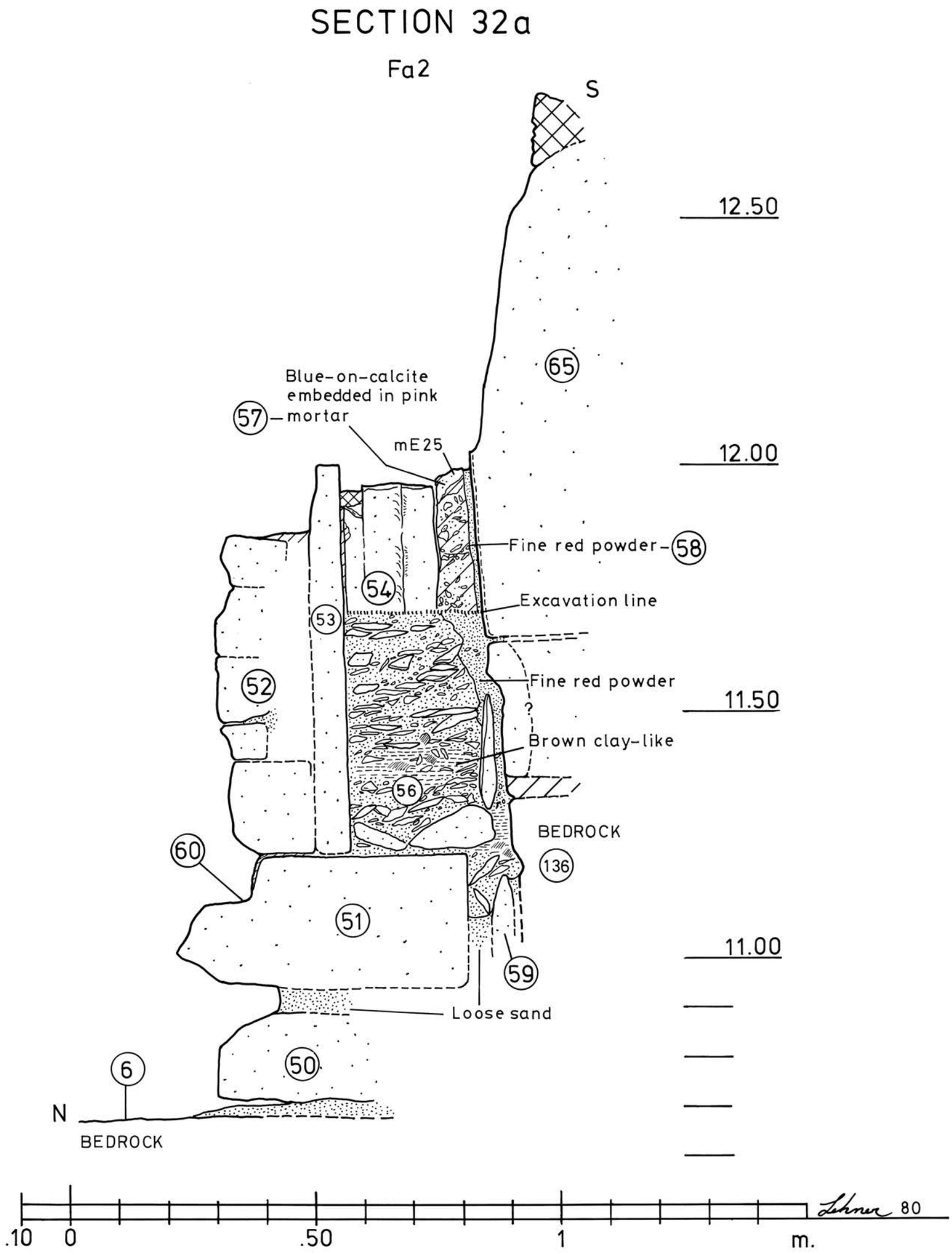
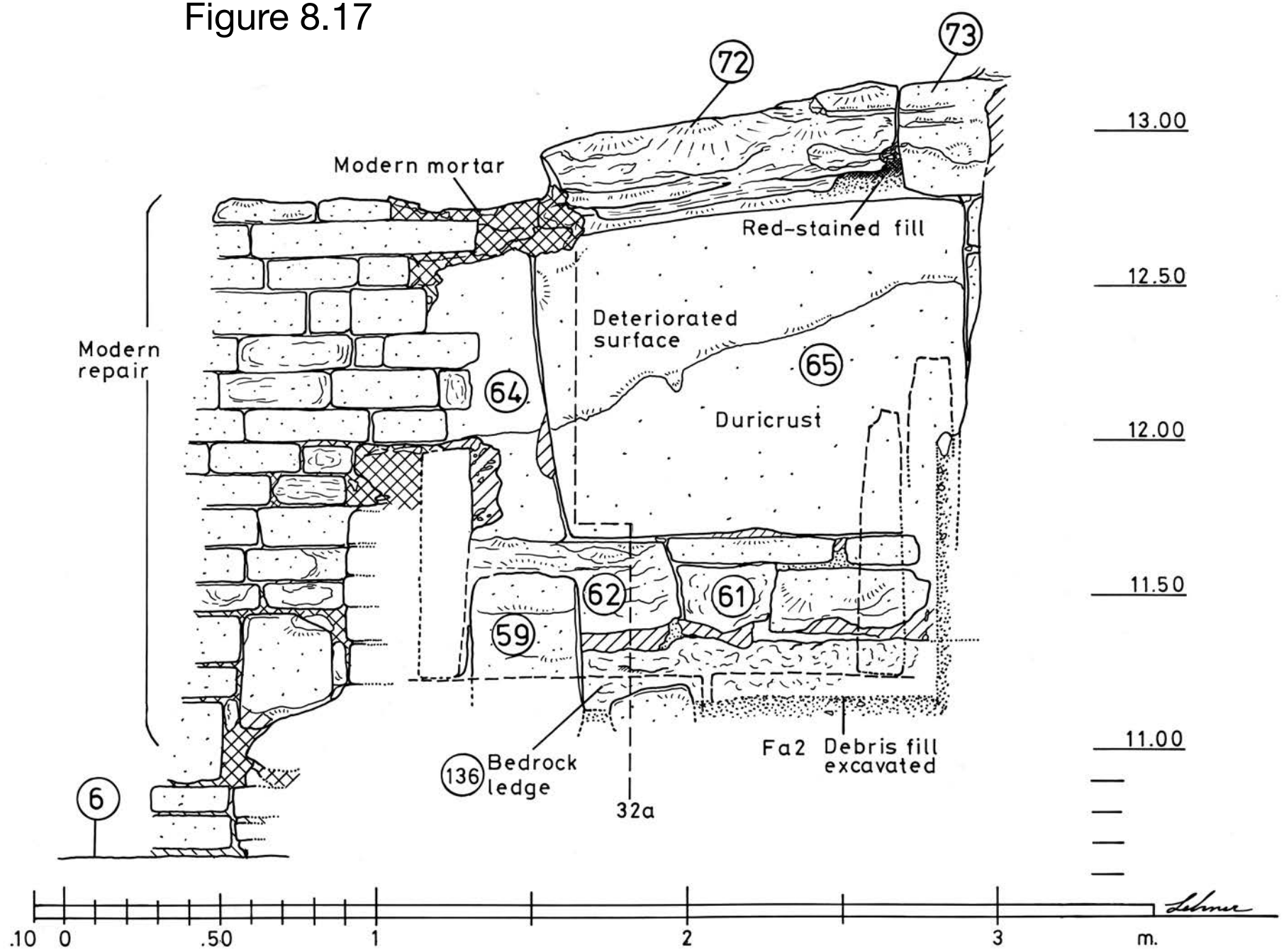

SECTION 32a
Fa2
S
12.50
65
Blue-on-calcite
embedded in pink
57 — mortar
mE25
12.00
Fine red powder — 58
54
Excavation line
53
52
Fine red powder
?
11.50
Brown clay-like
56
BEDROCK
136
60
51
11.00
59
Loose sand
50
6
N
BEDROCK
.10
0
.50
1
m.
Lehner 80

Figure 8.17


72
73
Modern mortar
Red-stained fill
13.00
12.50
Deteriorated surface
Modern repair
64
65
Duricrust
12.00
62
61
59
11.50
136 Bedrock ledge
32a
Fa2 Debris fill excavated
11.00
6
.10 0 .50 1 2 3 m.

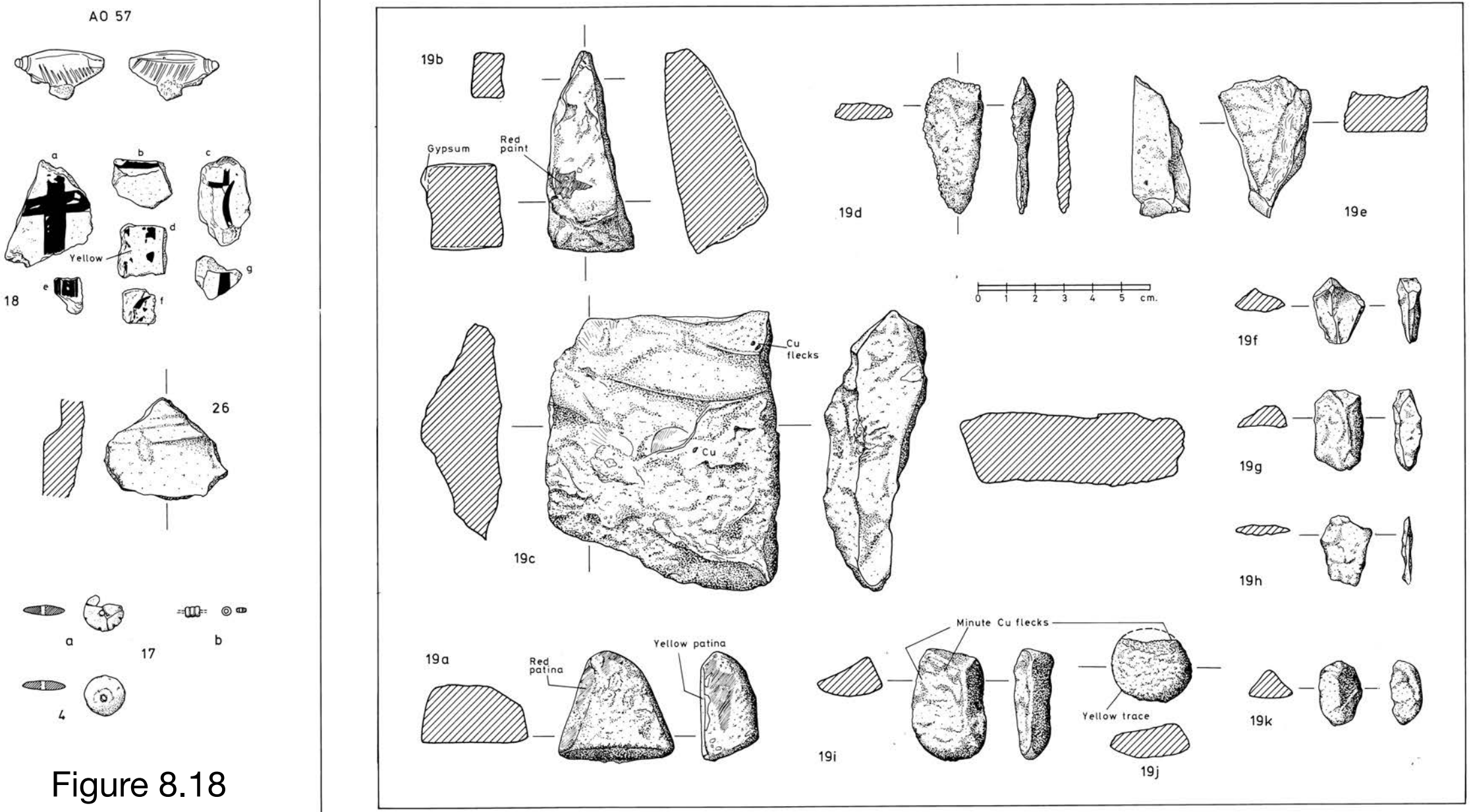
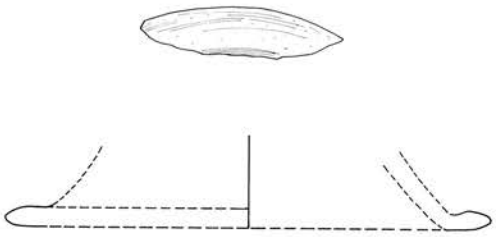

AO 57
a
b
c
d
e
f
g
Yellow
18
26
a
17
b
4
19b
Gypsum
Red paint
19d
19e
0 1 2 3 4 5 cm.
19f
Cu flecks
Cu
19c
19g
19h
19a
Red patina
Yellow patina
Minute Cu flecks
Yellow trace
19i
19j
19k

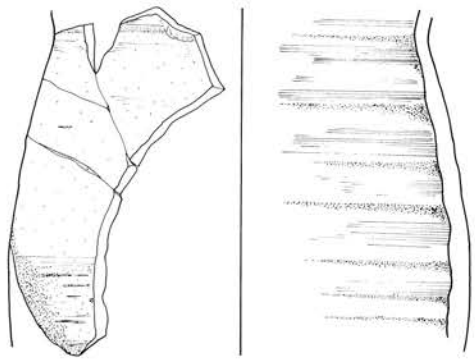
Figure 8.18

Figure 8.19

SPHINX, E, Fa2

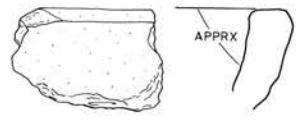


(2)

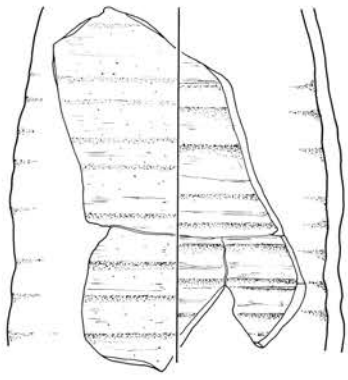


(4)

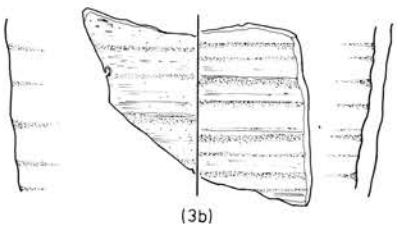
(3d)



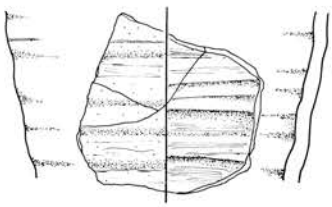
(1)



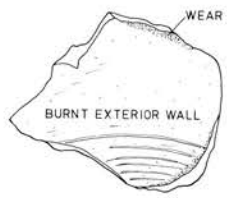
(3a)

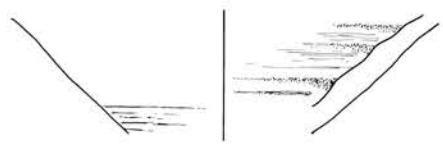


(3b)



(3c)





(5)

SPHINX, E, Fa2

Figure 8.20

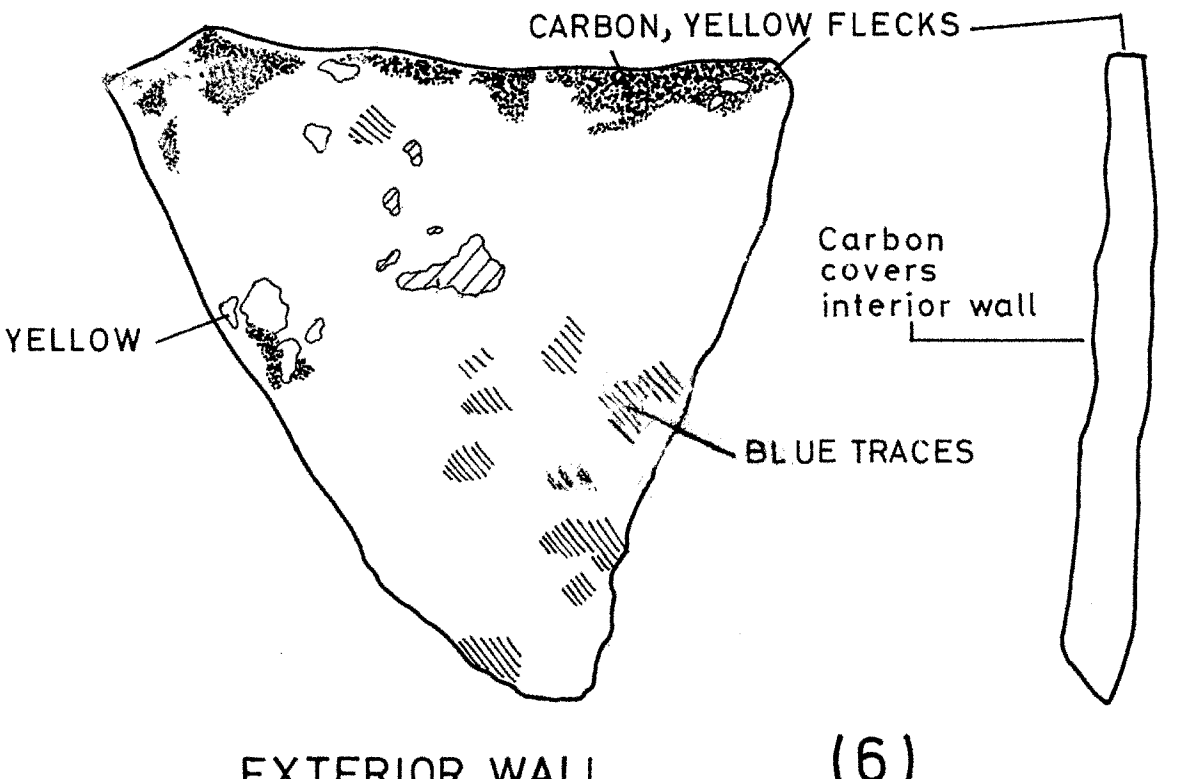
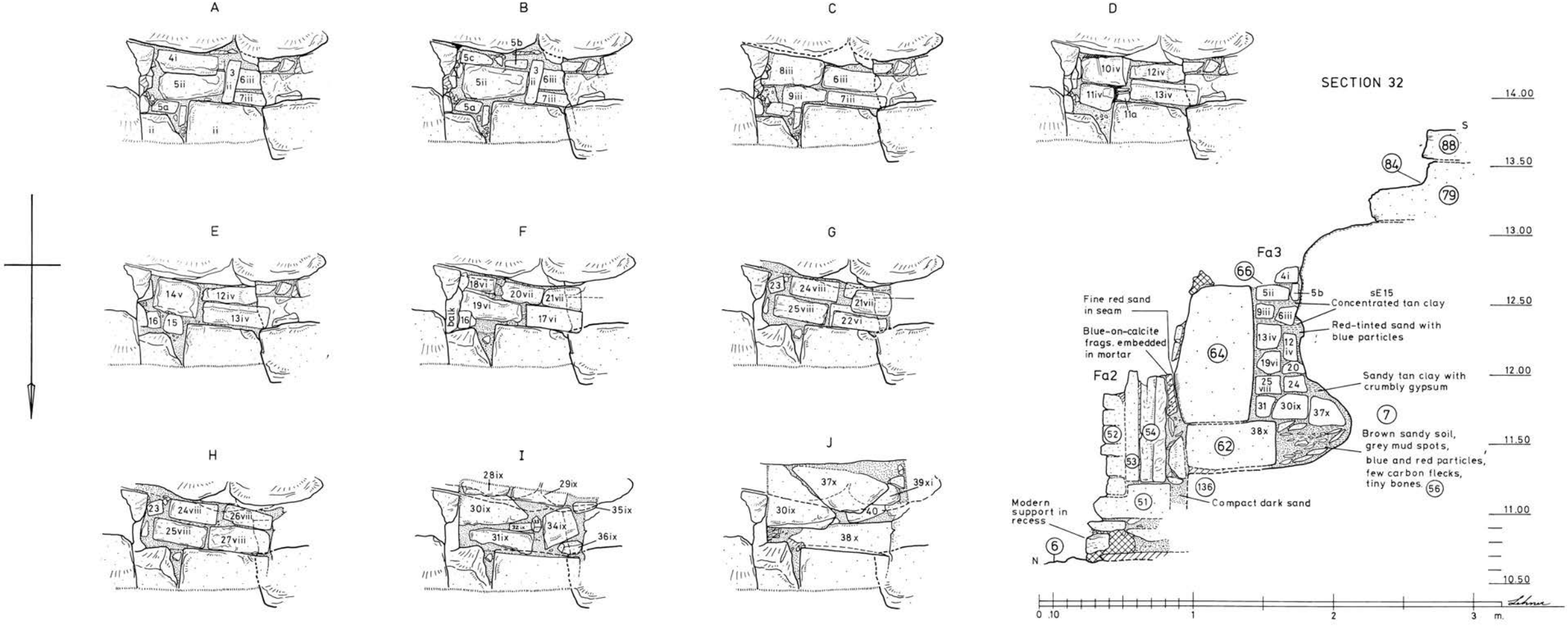
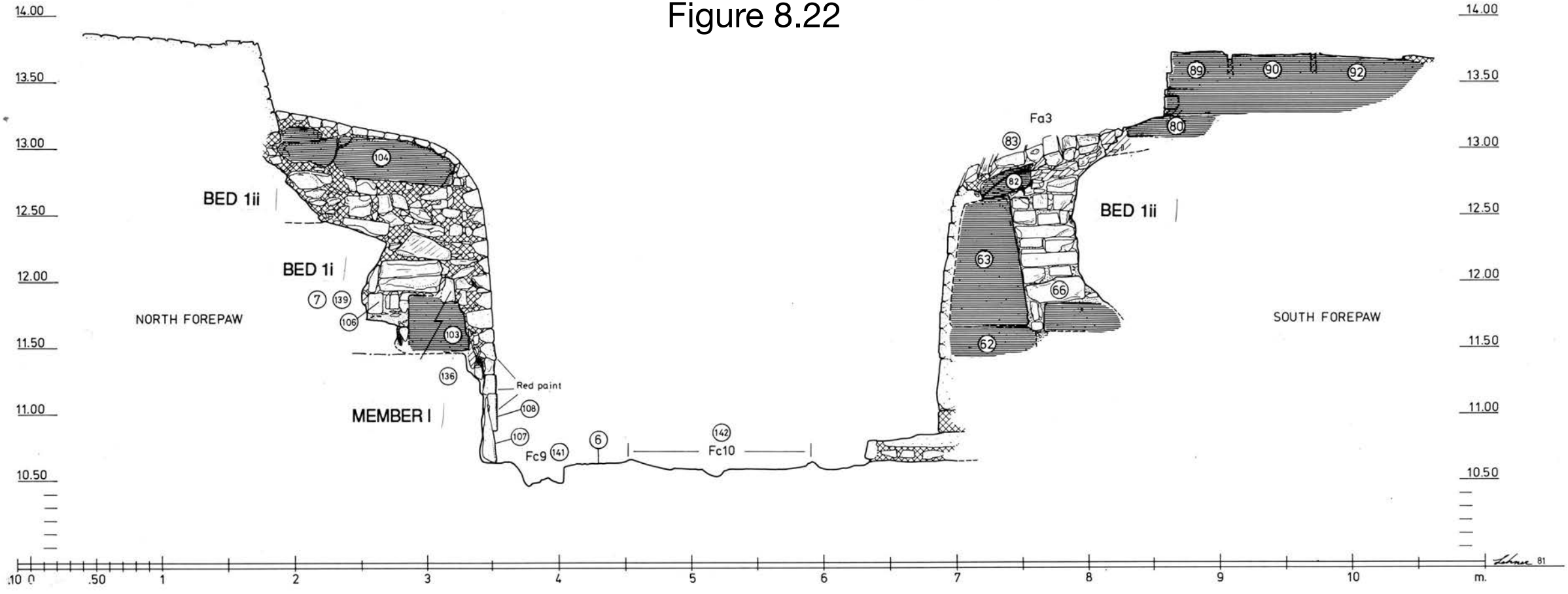


Figure 8.21


A
B
C
D
E
F
G
H
I
J
SECTION 32
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
Fa3
Fa2
Fine red sand in seam
Blue-on-calcite frags. embedded in mortar
sE15 Concentrated tan clay
Red-tinted sand with blue particles
Sandy tan clay with crumbly gypsum
Brown sandy soil, grey mud spots, blue and red particles, few carbon flecks, tiny bones.
Compact dark sand
Modern support in recess
N
S
0 .10
1
2
3 m.

SECTION 33

Figure 8.22



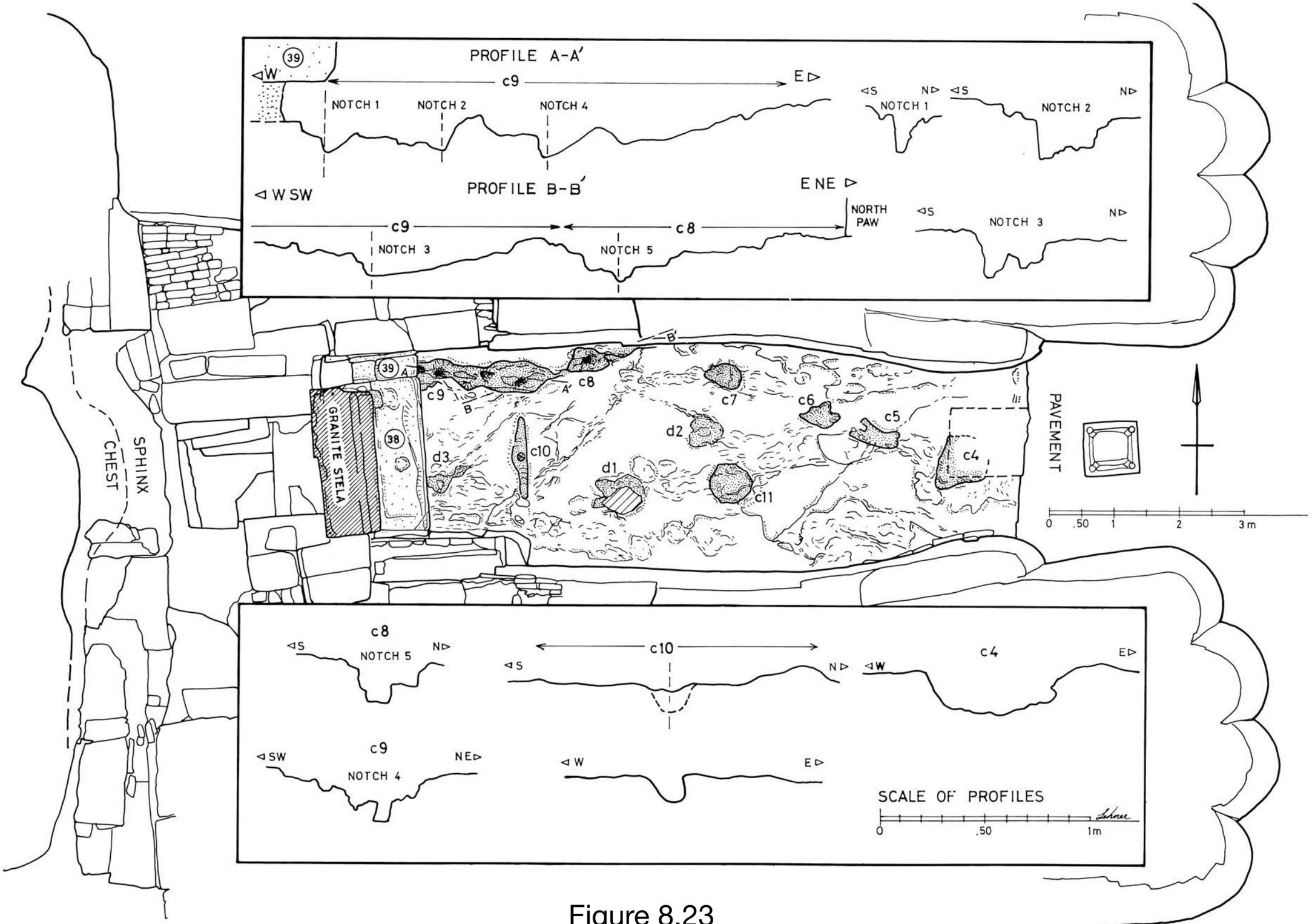

PROFILE A-A'
W
E
c9
NOTCH 1
NOTCH 2
NOTCH 4
S
N
NOTCH 1
NOTCH 2
PROFILE B-B'
W SW
ENE
NORTH PAW
c9
c8
NOTCH 3
NOTCH 5
NOTCH 3
39
38
A
A'
B
B'
GRANITE STELA
SPHINX
CHEST
c9
c8
c7
c6
c5
c4
c10
c11
d1
d2
d3
PAVEMENT
0 .50 1 2 3 m
c8
NOTCH 5
c10
c4
c9
NOTCH 4
SW
NE
W
E
SCALE OF PROFILES
0 .50 1m

Figure 8.23

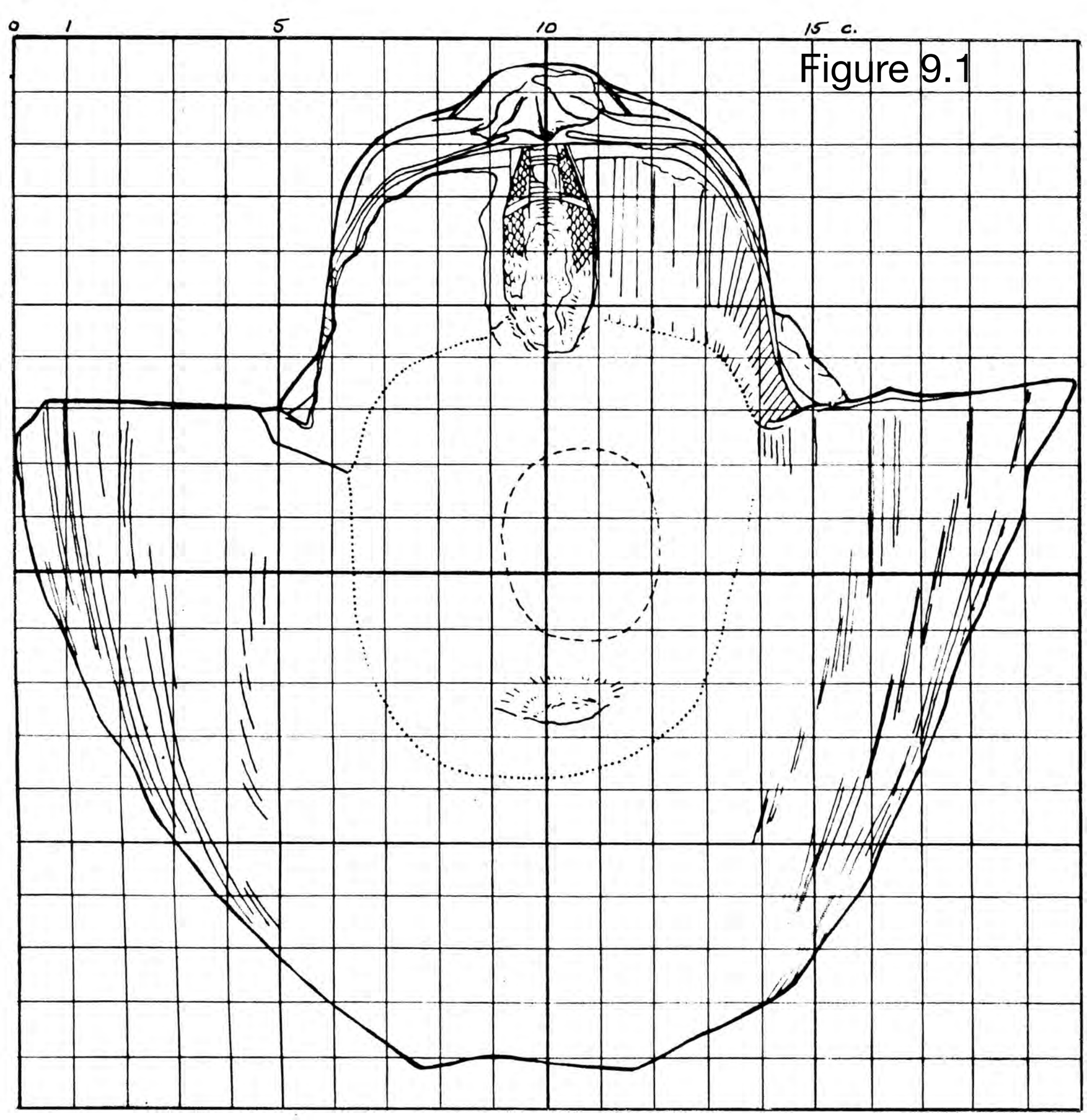


Figure 9.1

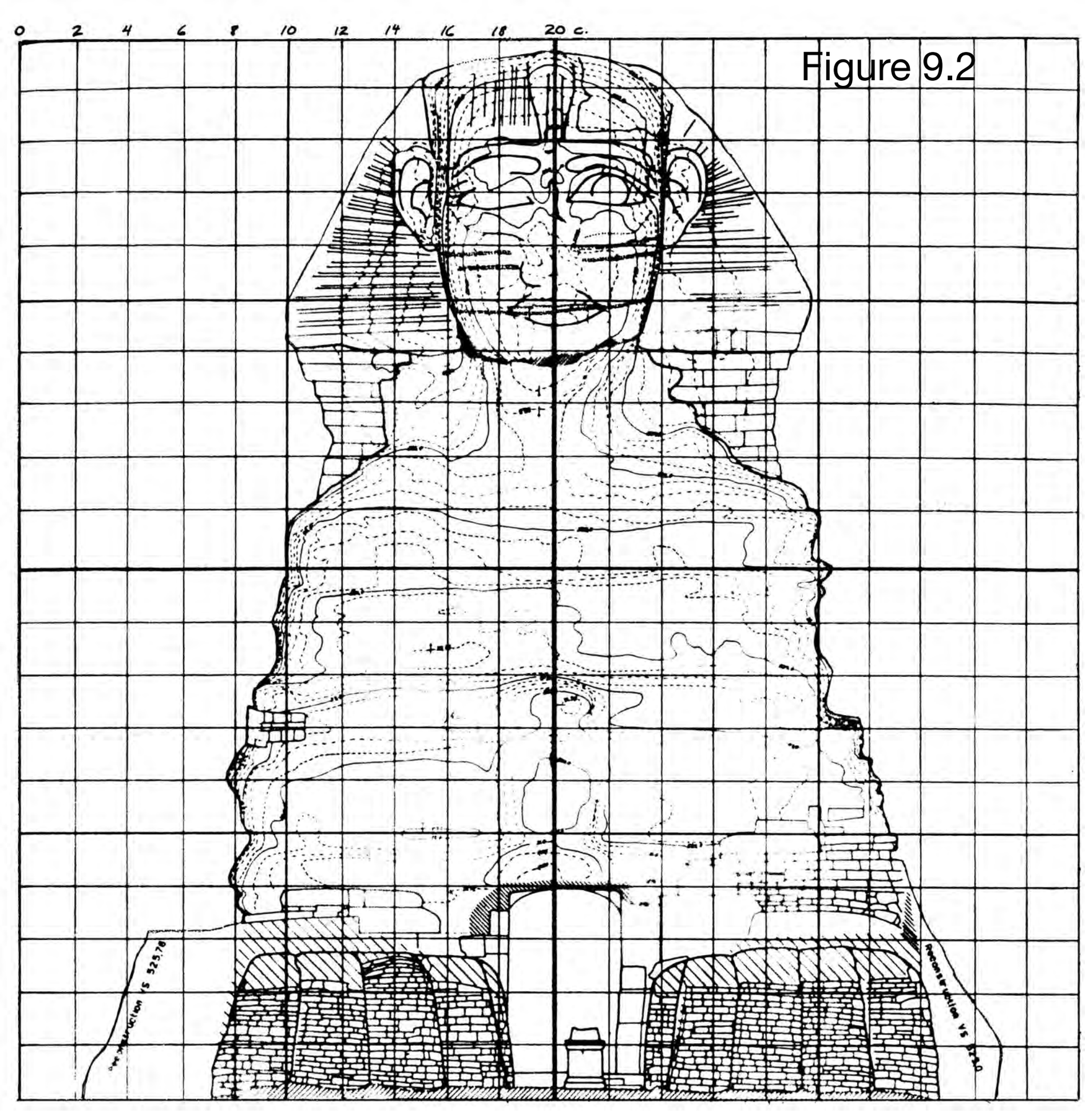


Figure 9.2

Figure 9.3

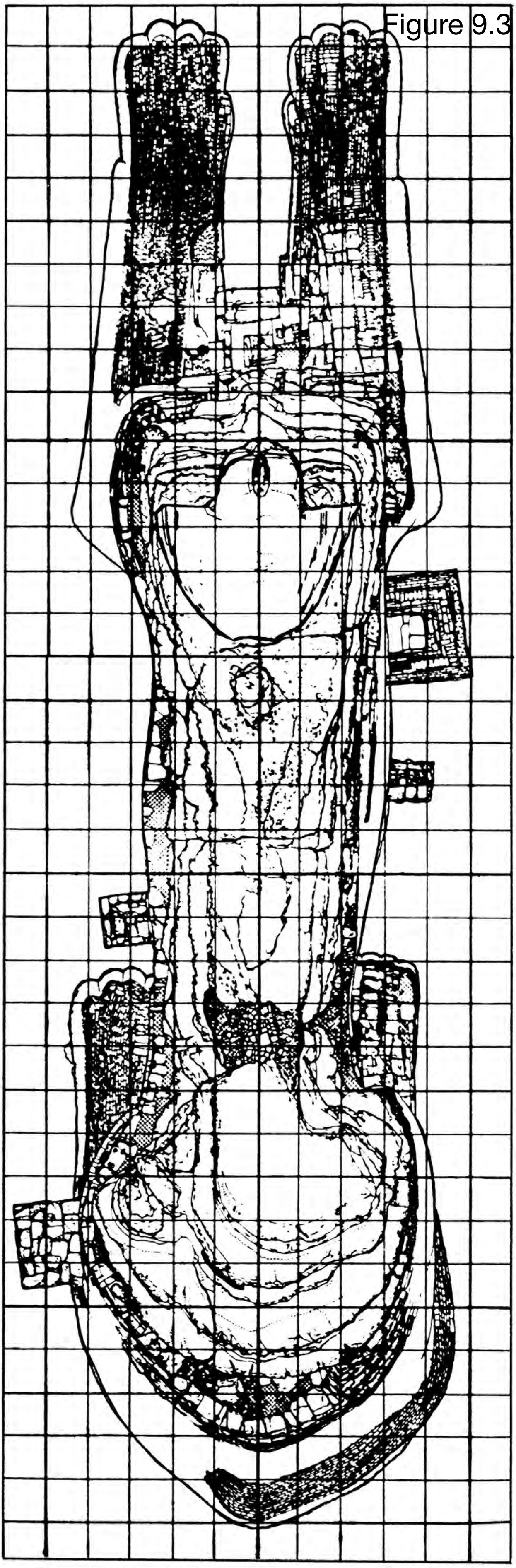


Figure 9.4

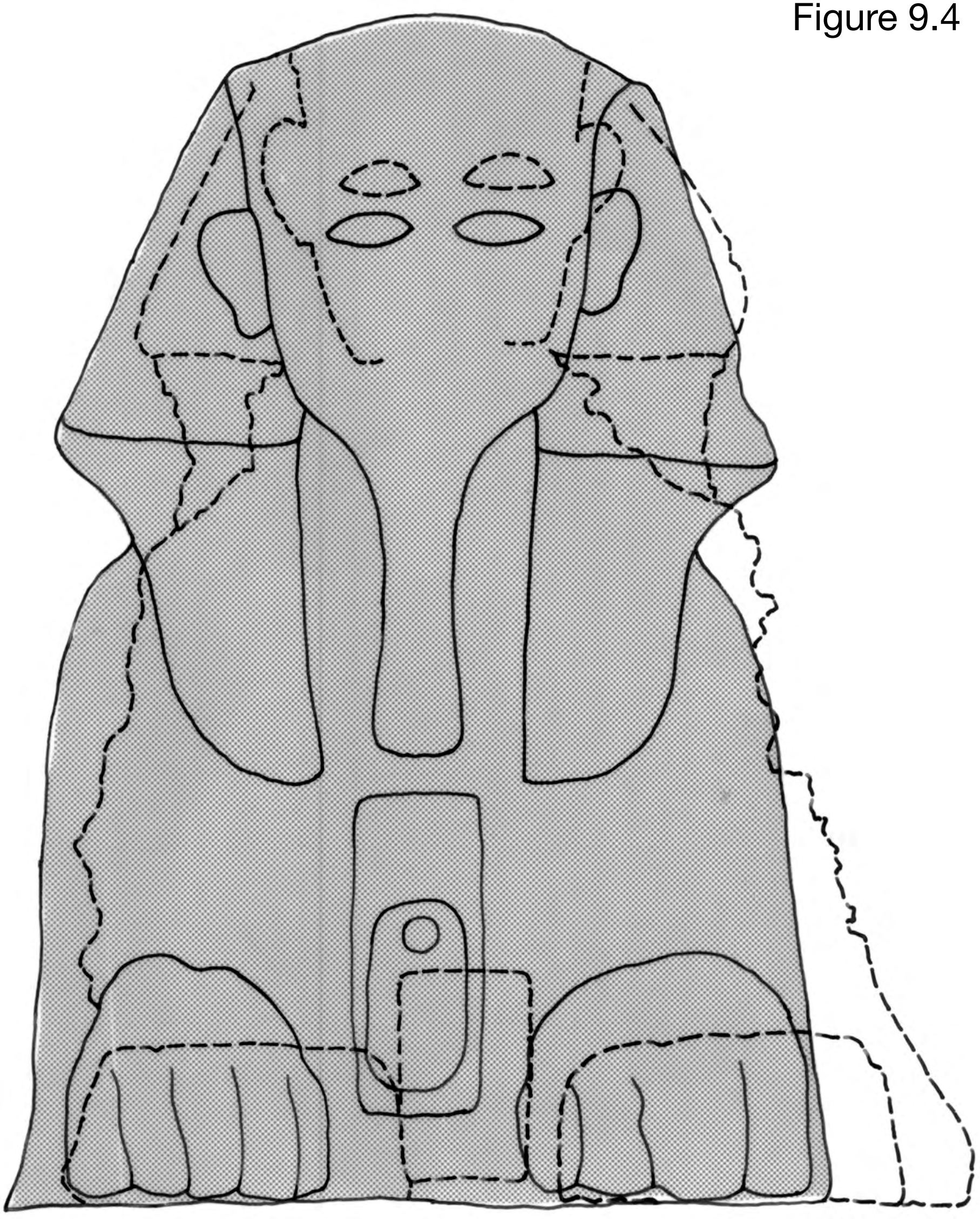


Figure 9.5

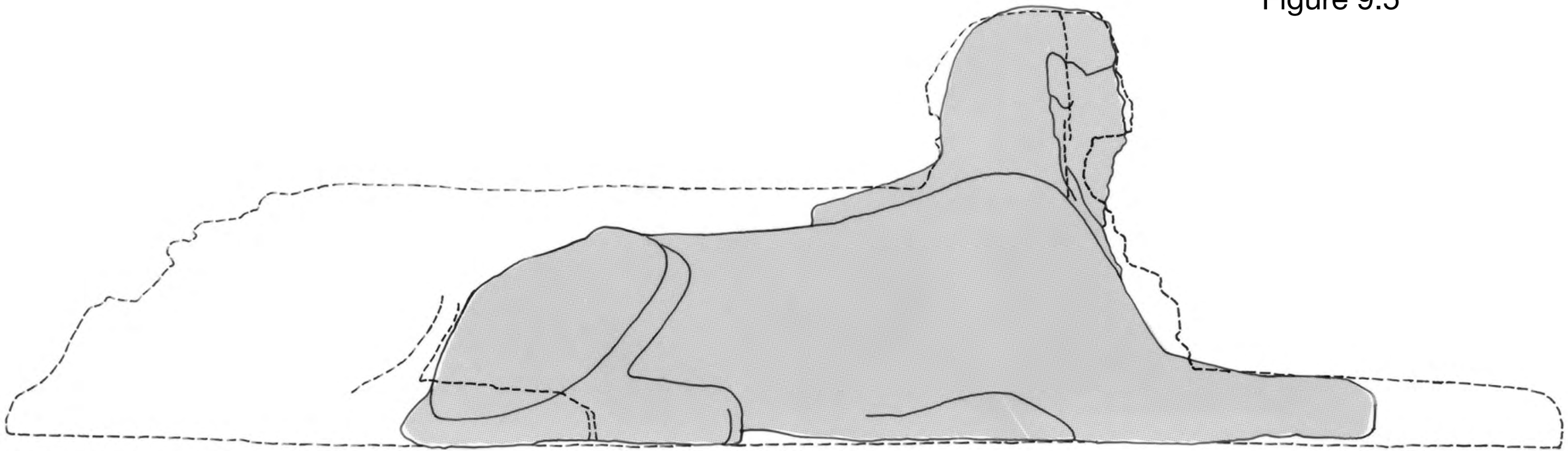
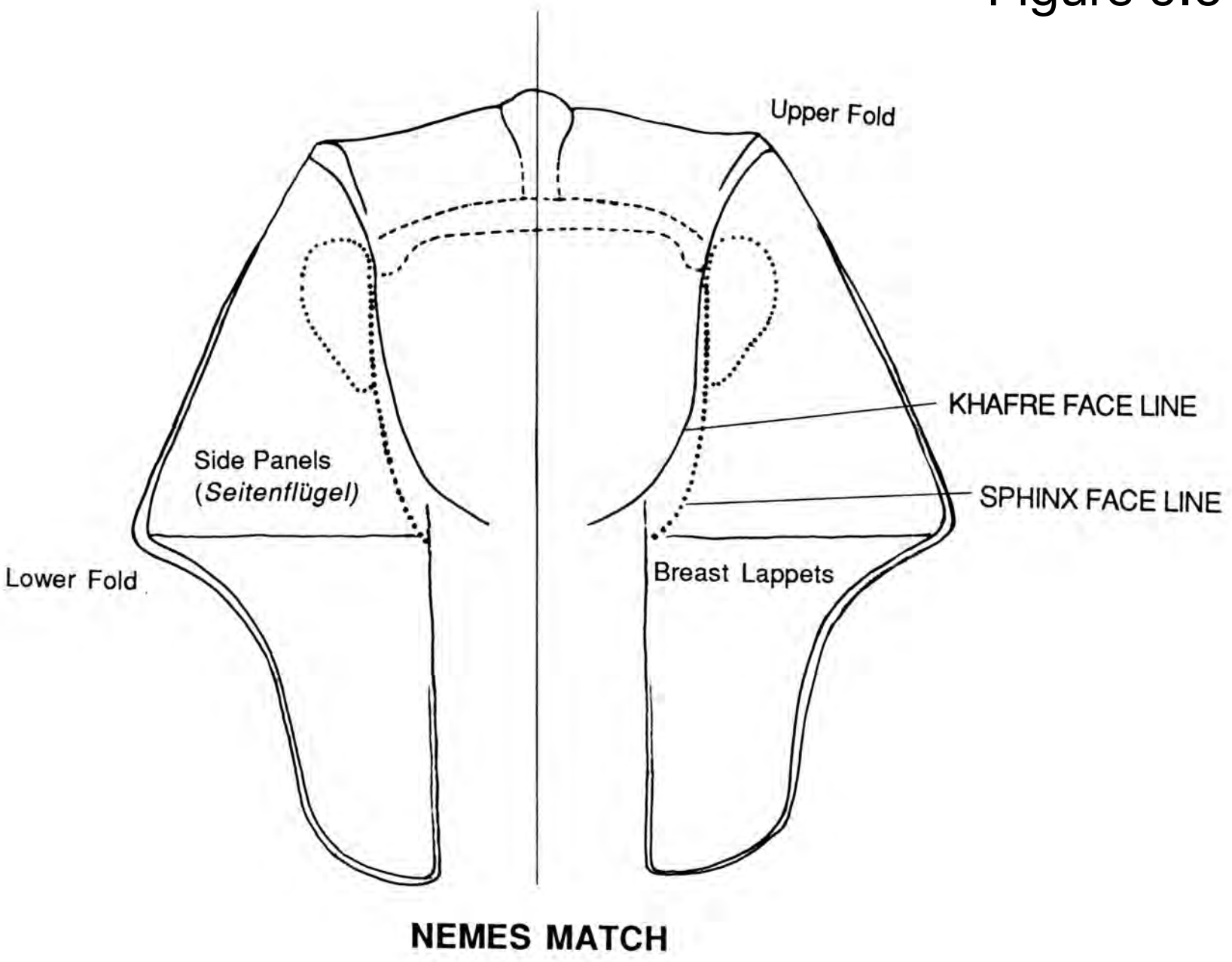
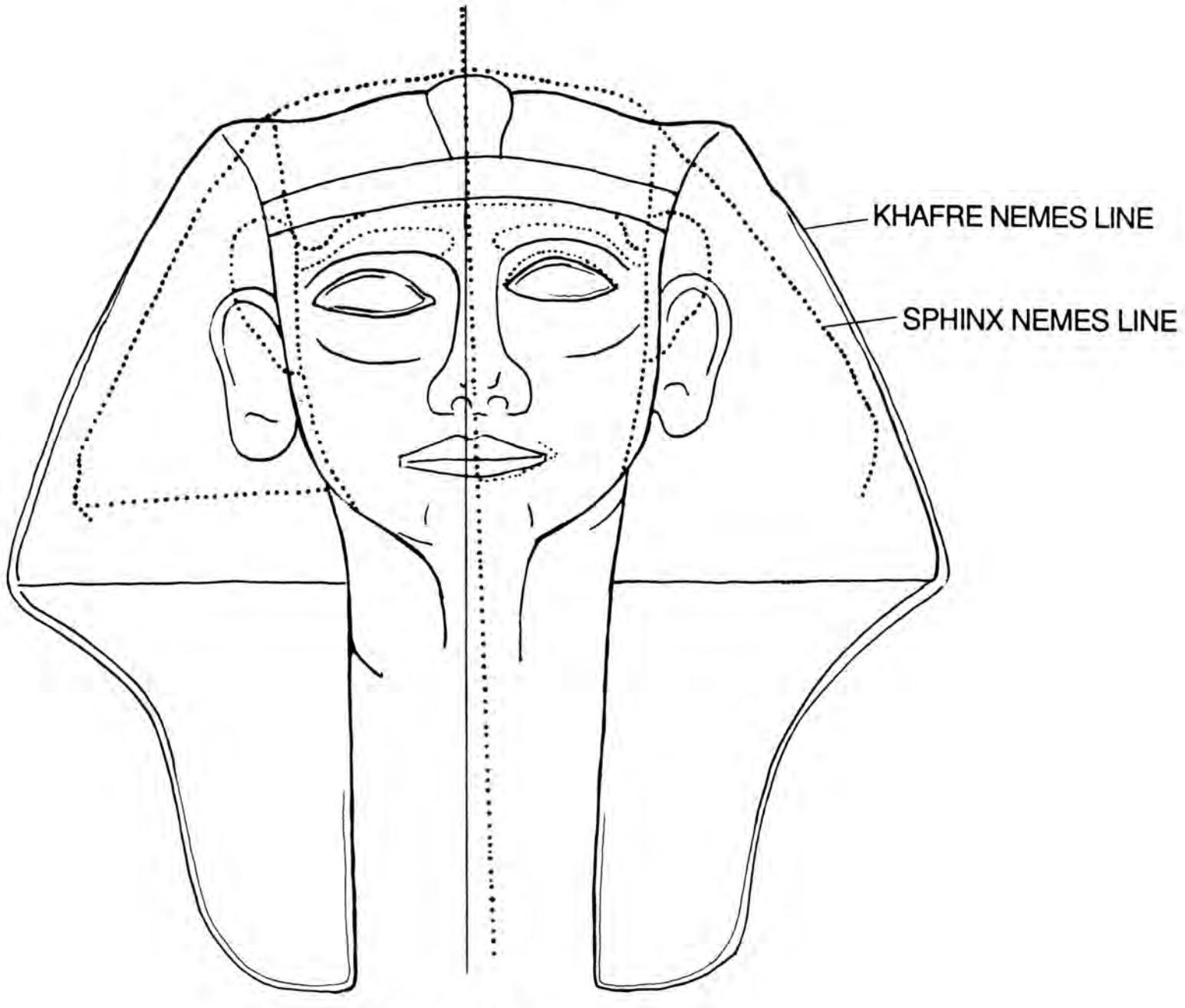


Figure 9.6



NEMES MATCH



FACE MATCH

Figure 9.7

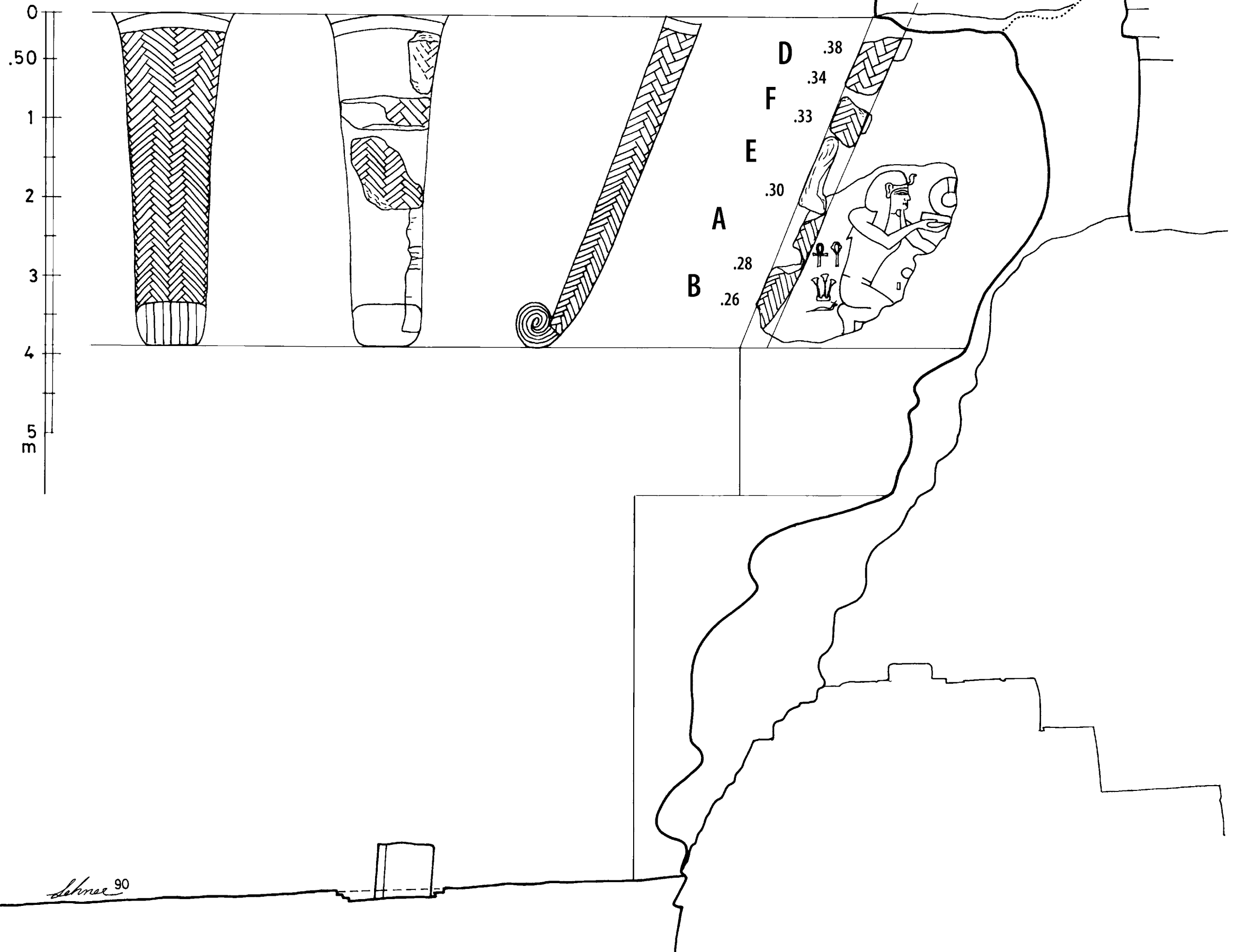
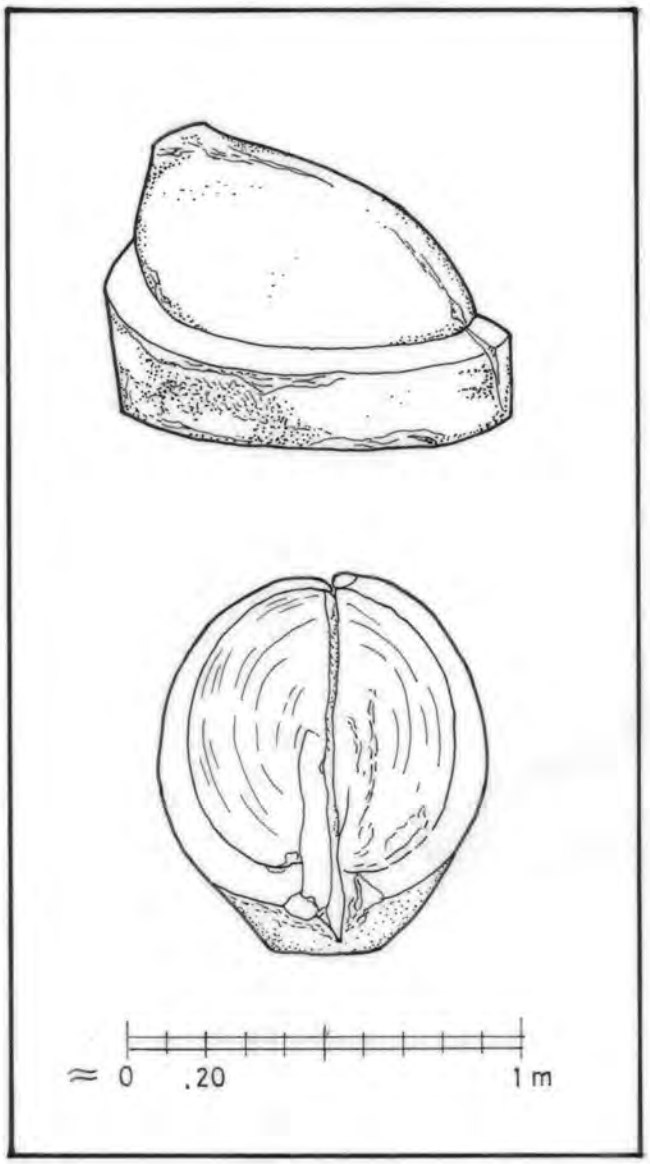


Figure 9.8



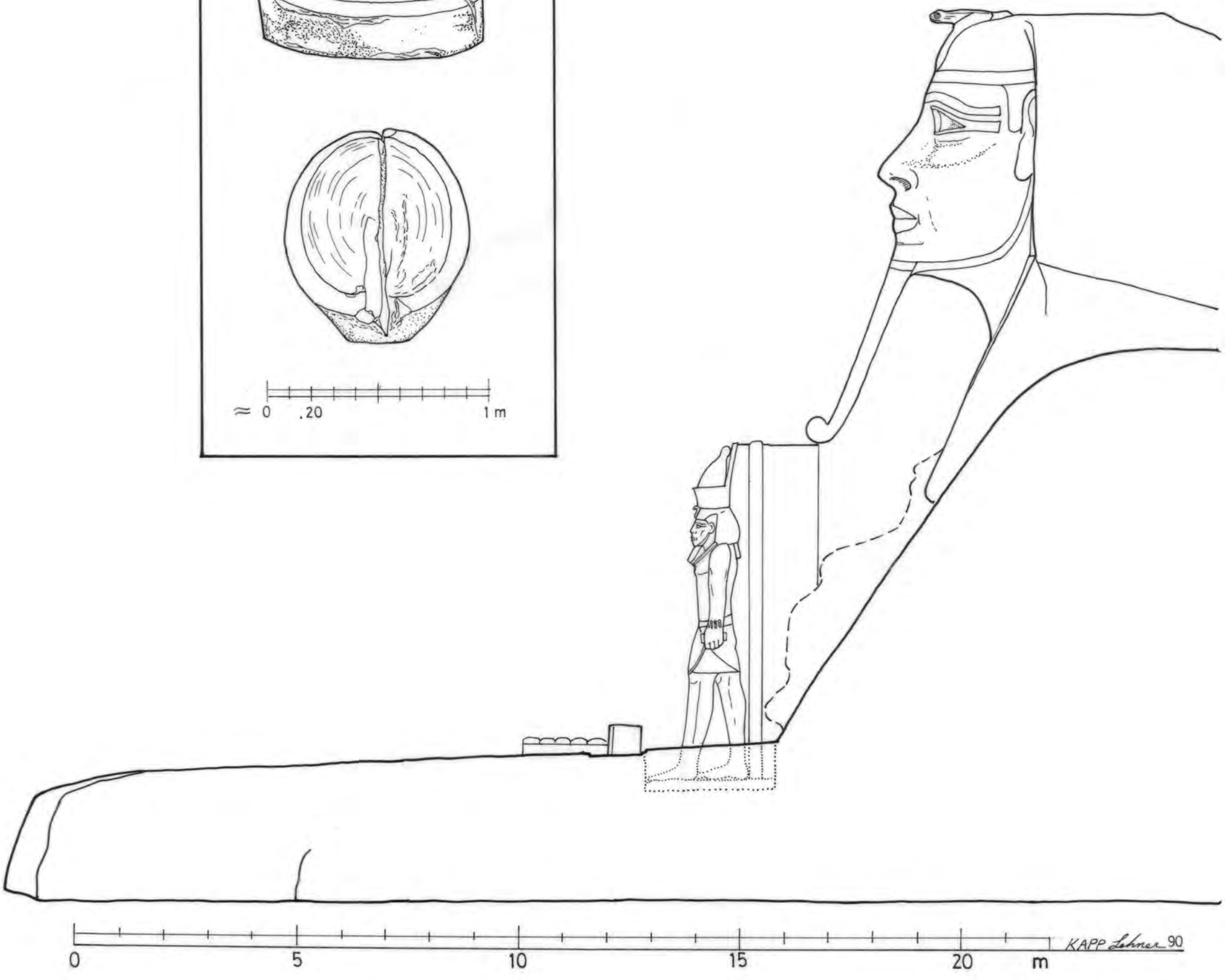


Figure 9.9

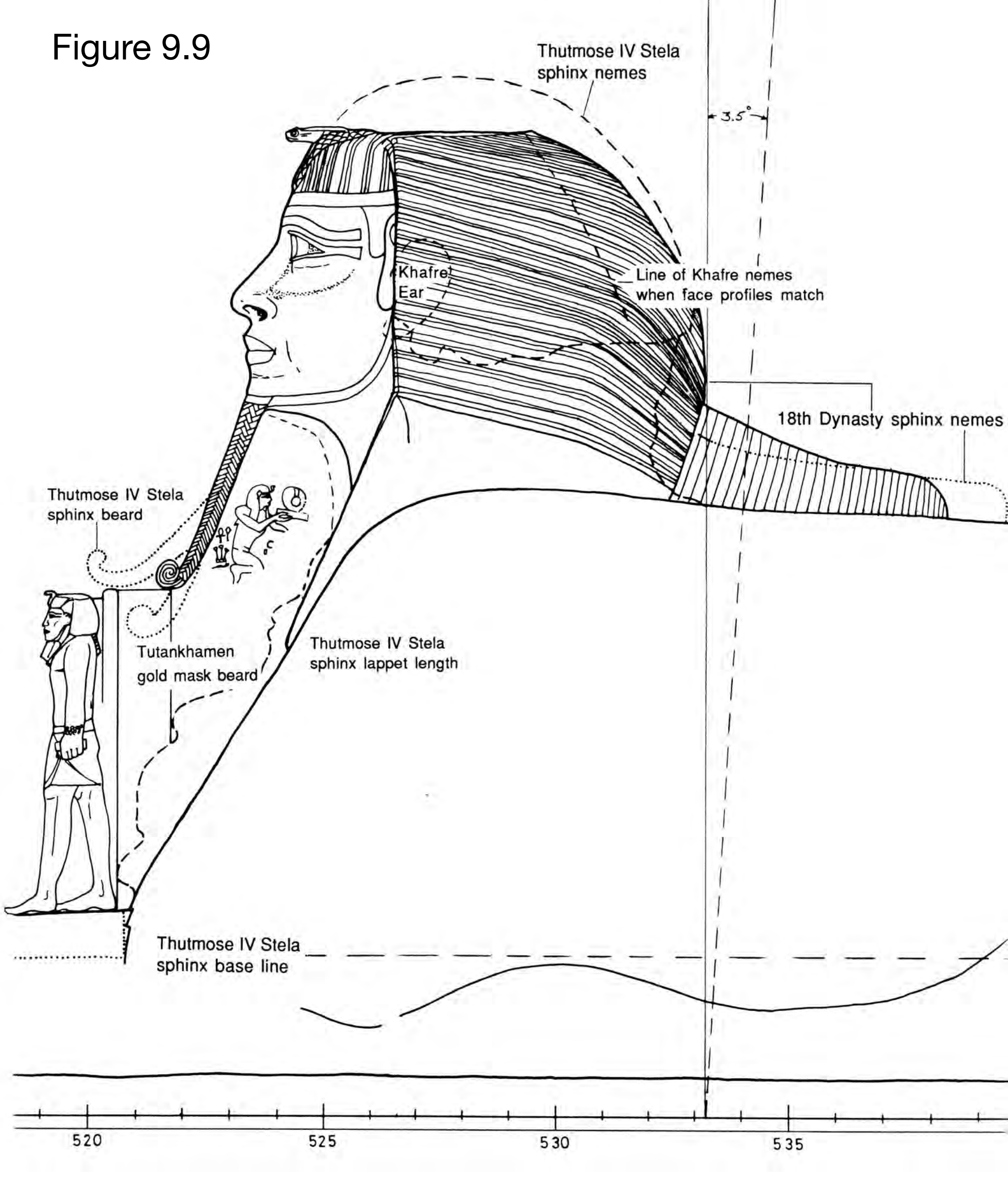

Thutmose IV Stela
sphinx nemes
3.5°
Khafre
Ear
Line of Khafre nemes
when face profiles match
18th Dynasty sphinx nemes
Thutmose IV Stela
sphinx beard
Tutankhamen
gold mask beard
Thutmose IV Stela
sphinx lappet length
Thutmose IV Stela
sphinx base line
520
525
530
535

Figure 9.10

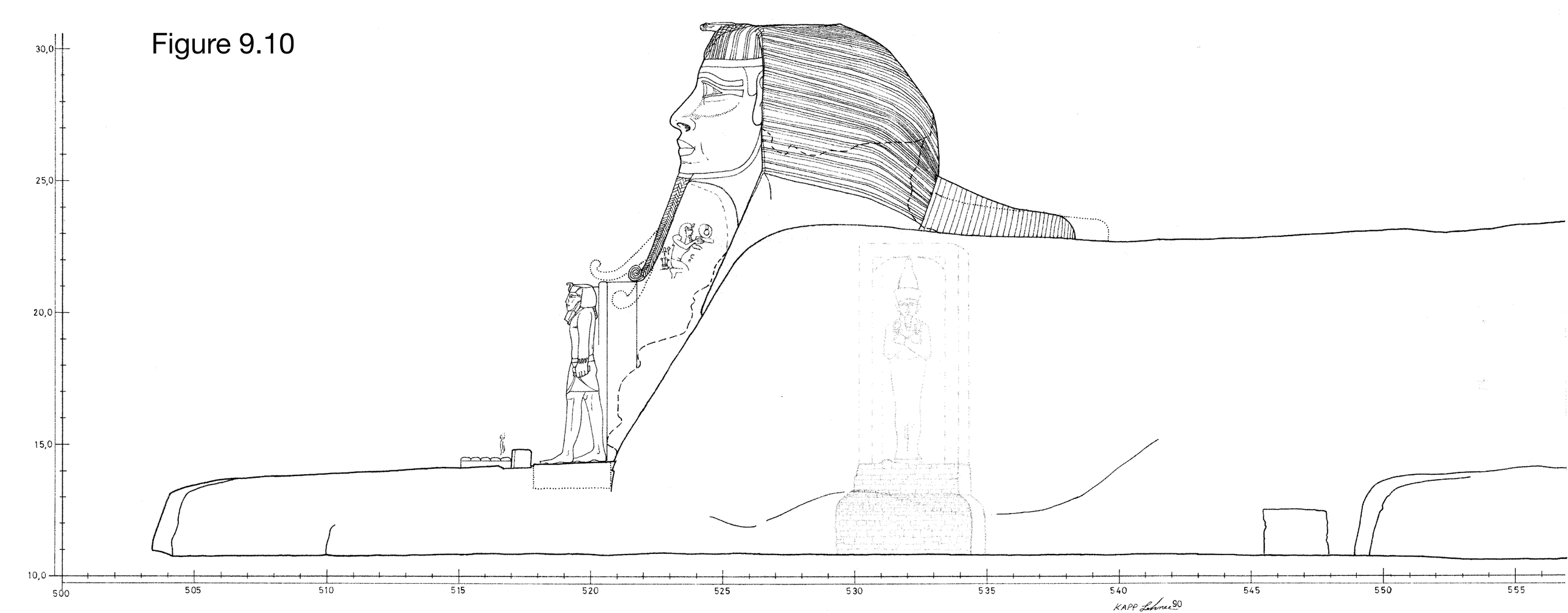

30,0
25,0
20,0
15,0
10,0
500
505
510
515
520
525
530
535
540
545
550
555
KAPP Lehner 90

Figure 9.11

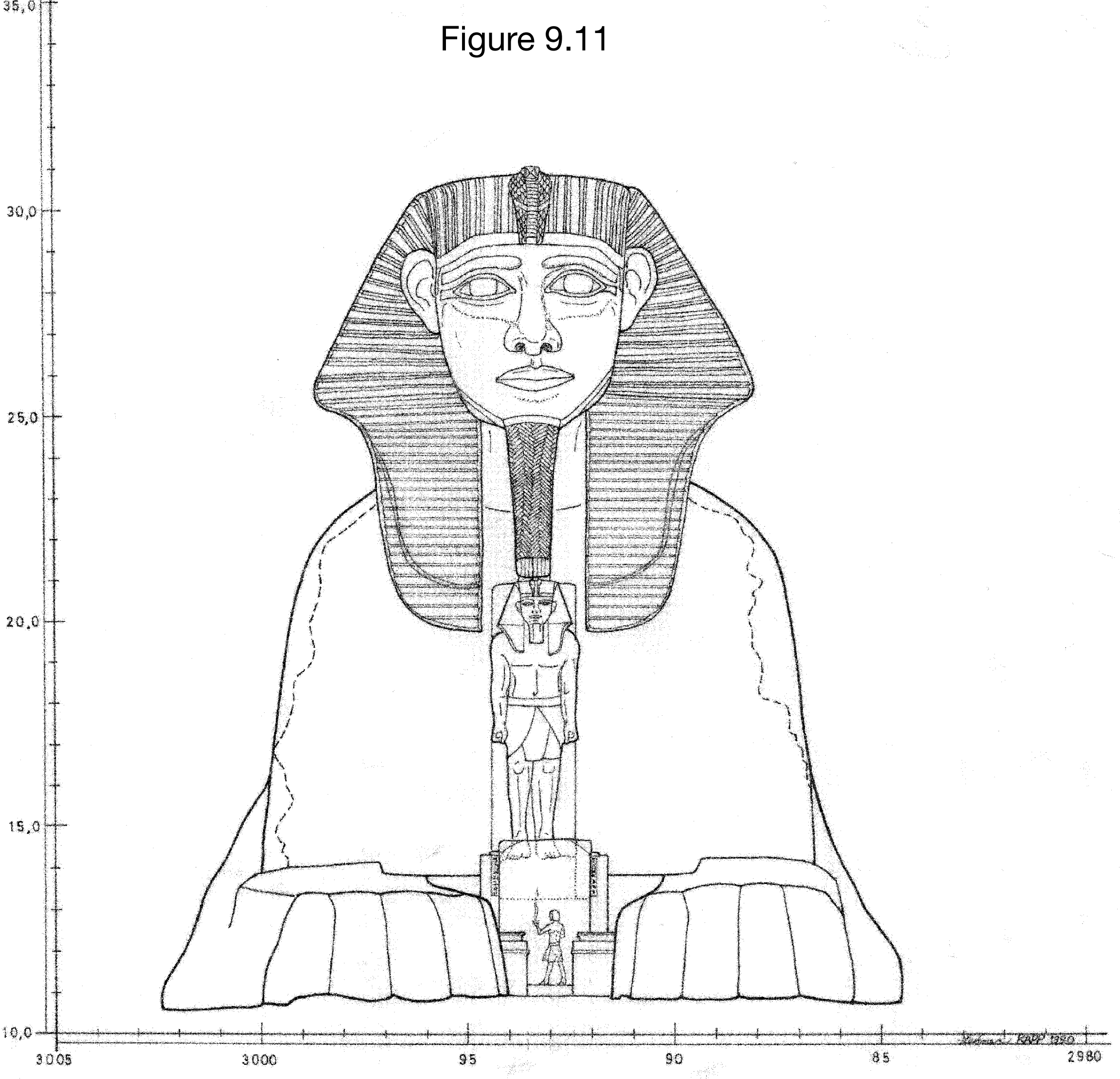


Figure 9.12

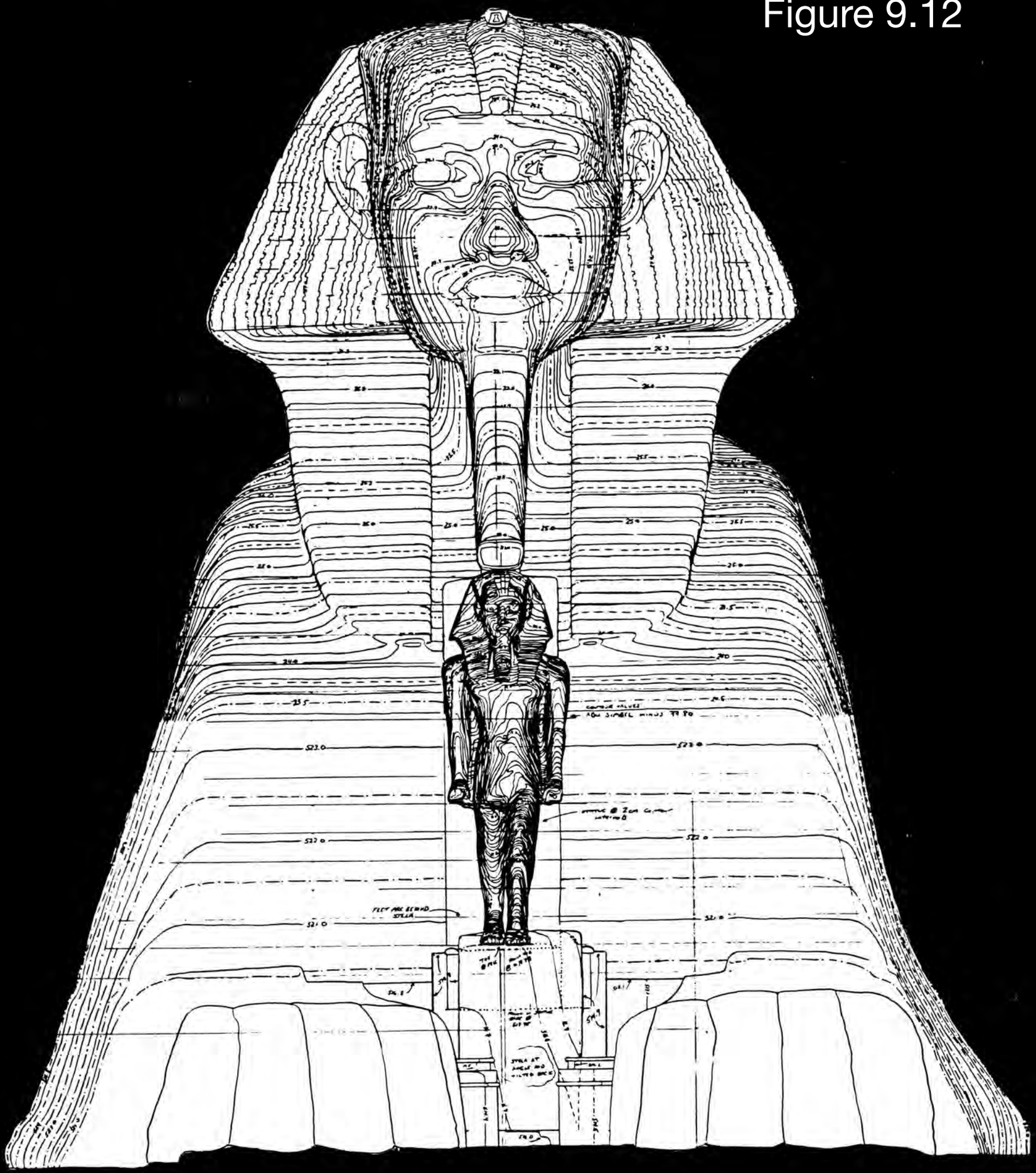


Figure 9.13

Figure 9.14

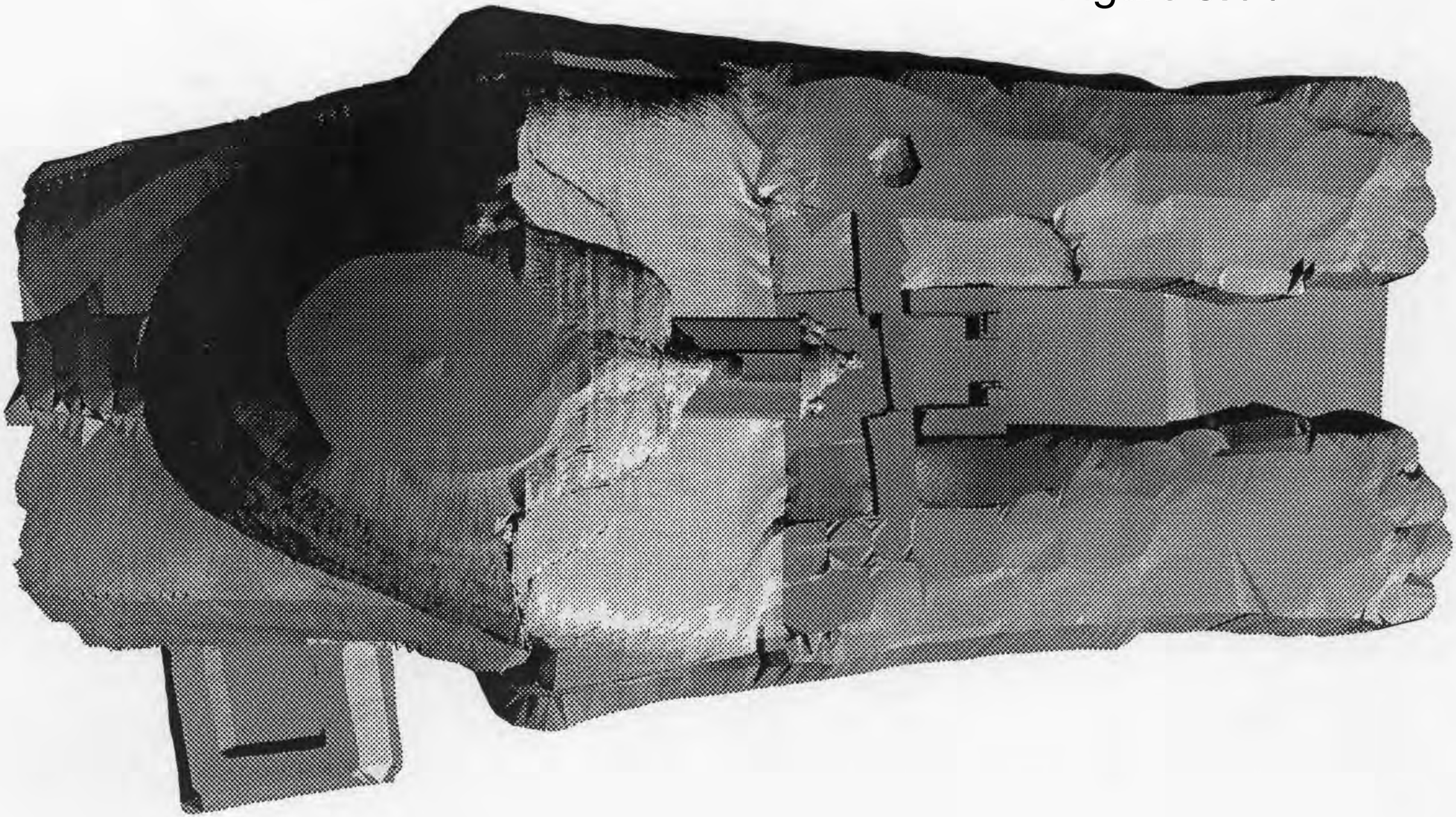


Figure 9.15

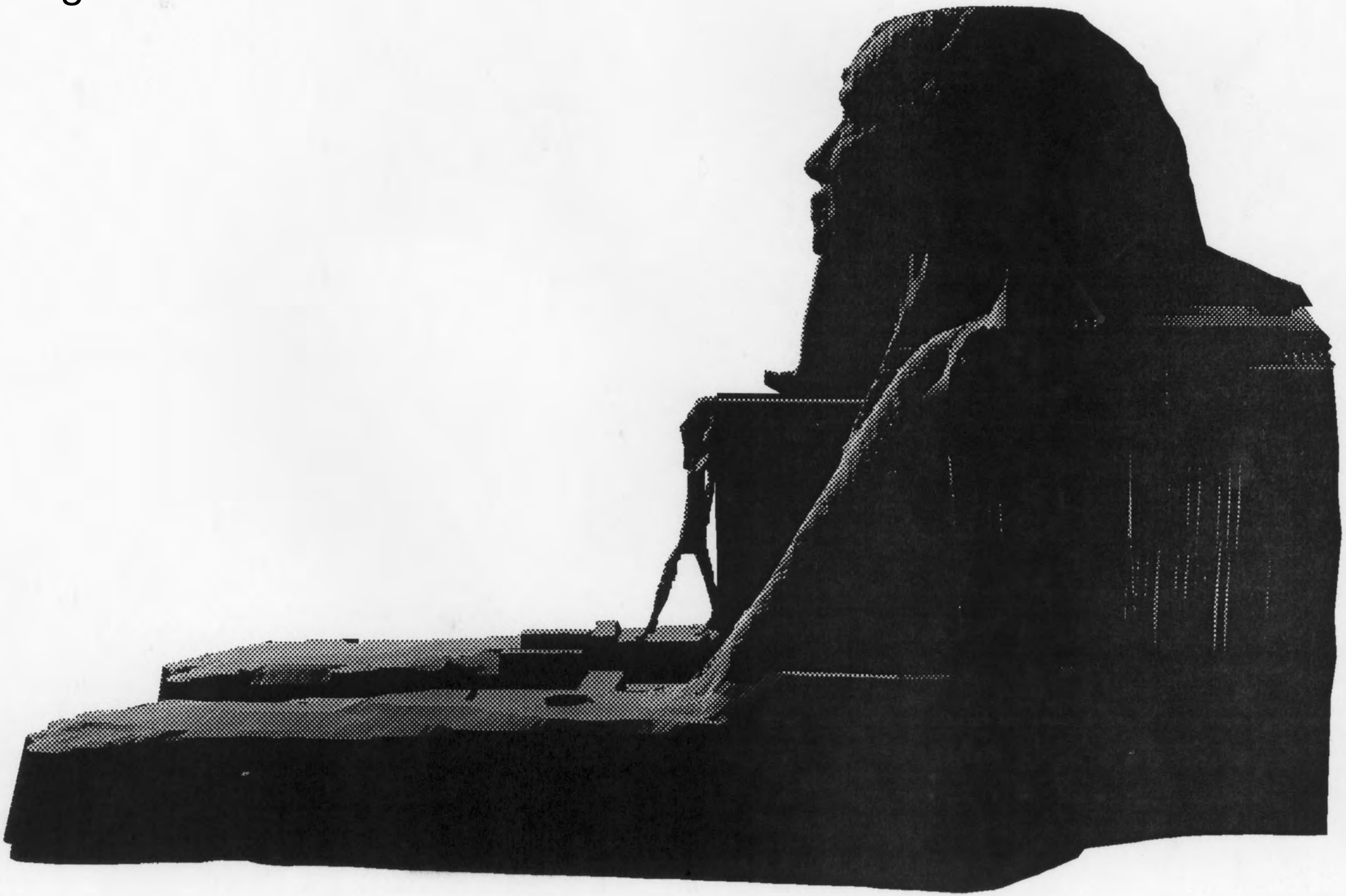
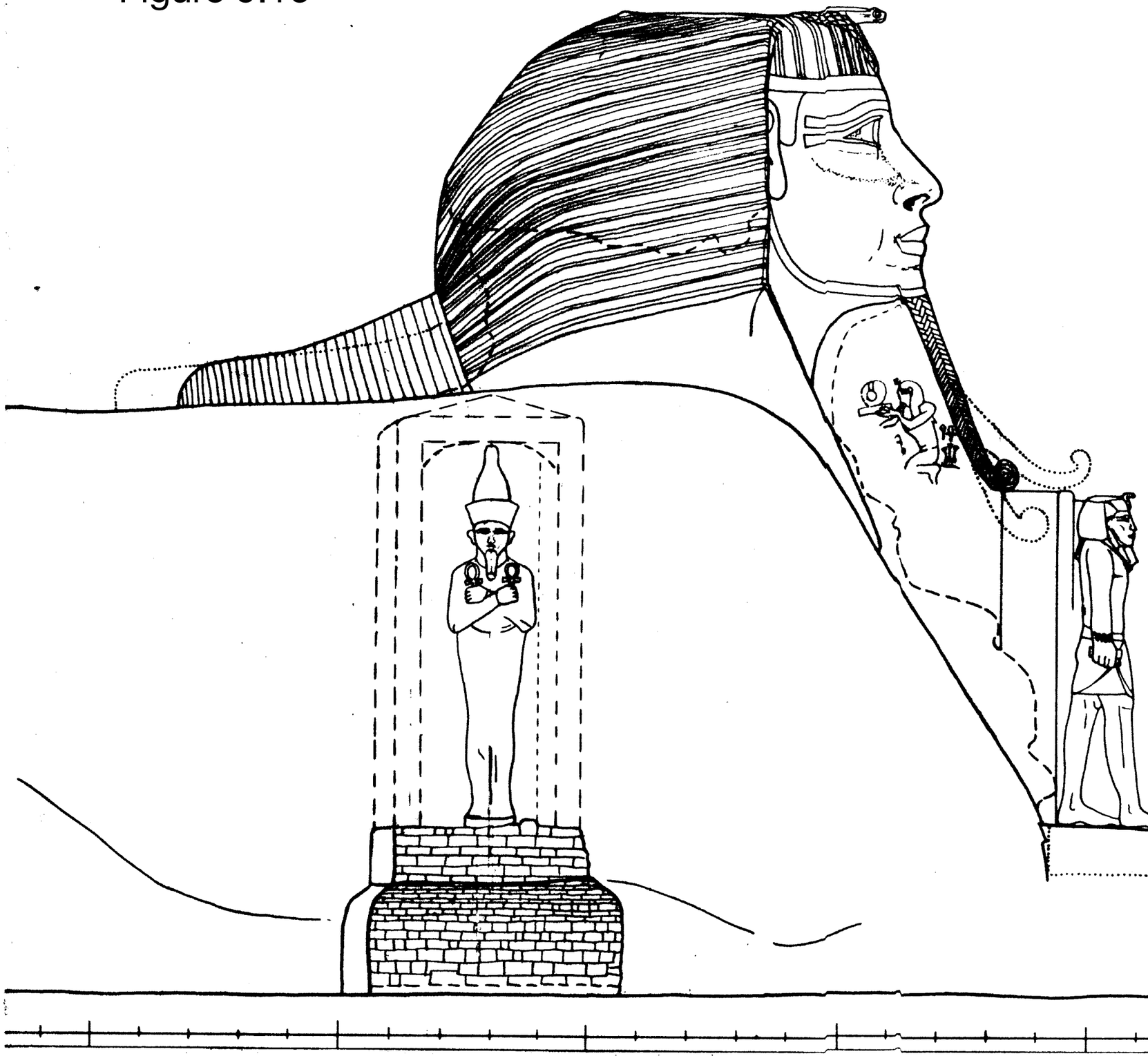
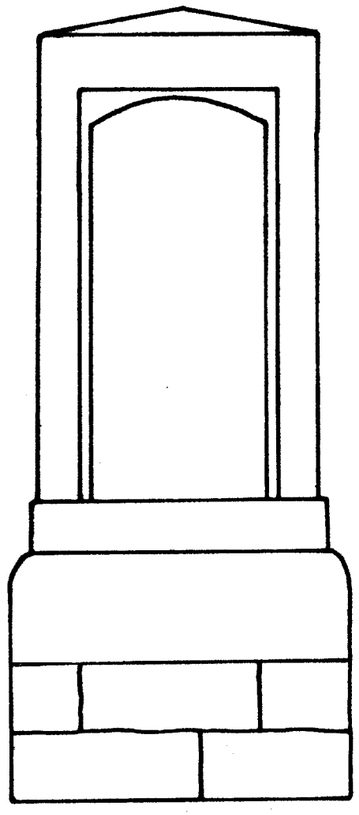


Figure 9.16





MENDES NAOS