

MASONRY WALLS AT SHOOFLY
A PRELIMINARY DESCRIPTION OF THE ARCHITECTURE
AFTER THE FIRST FIELD SEASON

DRAFT

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INTRODUCTION

One of the most prominent features of Shoofly Village is the vast array of architectural remains. Wallfall remains on the site's surface are extensive and formidable. The extent of standing architecture varies across the site, but patterned architectural units within the site suggest the architecture at Shoofly may provide one of the more interesting and rewarding research domains to be investigated at this site. Present at Shoofly are dispersed plazas, smaller enclosed plazas associated with discrete roomblocks, circular and subrectangular features, and an exterior compound wall.

Investigation of the architecture will provide a major means for studying general site structure in terms of chronological relationships among the spatially-defined units and potential functional differences among different architectural types, styles and units. An architectural perspective will allow addressing building sequences and relative temporal differences within the site, as well as general economic and social relationships that may have existed within the prehistoric community at Shoofly.

Field research on the architecture during the 1984 season has been an initial effort to begin addressing some of these major research questions and provide preliminary statements on the architecture.

The results presented here are restricted to a discussion of the masonry walls at Shoofly. Excavation strategies implemented during the first three phases of field research (see Research Design) resulted in the location of buried walls, wall clearing,

expanded vertical exposure of plaza and room walls and the walls of unique architectural structures. The results, of course, are subject to some degree of sampling error that reflect judgmental decisions for expanded excavation. General construction techniques and initial impressions on intra-site variability in architectural patterns are presented. An understanding of functional variability in architectural forms and chronological relationships among architectural units is only suggested and tentative at this stage.

The bulk of the information presented is a result of vertical exposures of 21 masonry walls or segments of walls. The walls were not all investigated to the same degree of detail due to varying amounts of excavation, exposure and time available in the field. The data were recorded on a field form designed for masonry walls. The majority of the walls were drawn, and all were photographed in black and white and color. A summary of information on the walls is available in Appendix I. Individual drawings are presented in Appendix II. Each roomblock or major area of the site was assigned a block of numbers. Walls are identified by a letter designating the cardinal direction and a number (e.g., NE-400). Figure 1 indicates the location of the numbered walls investigated at Shoofly in 1984.

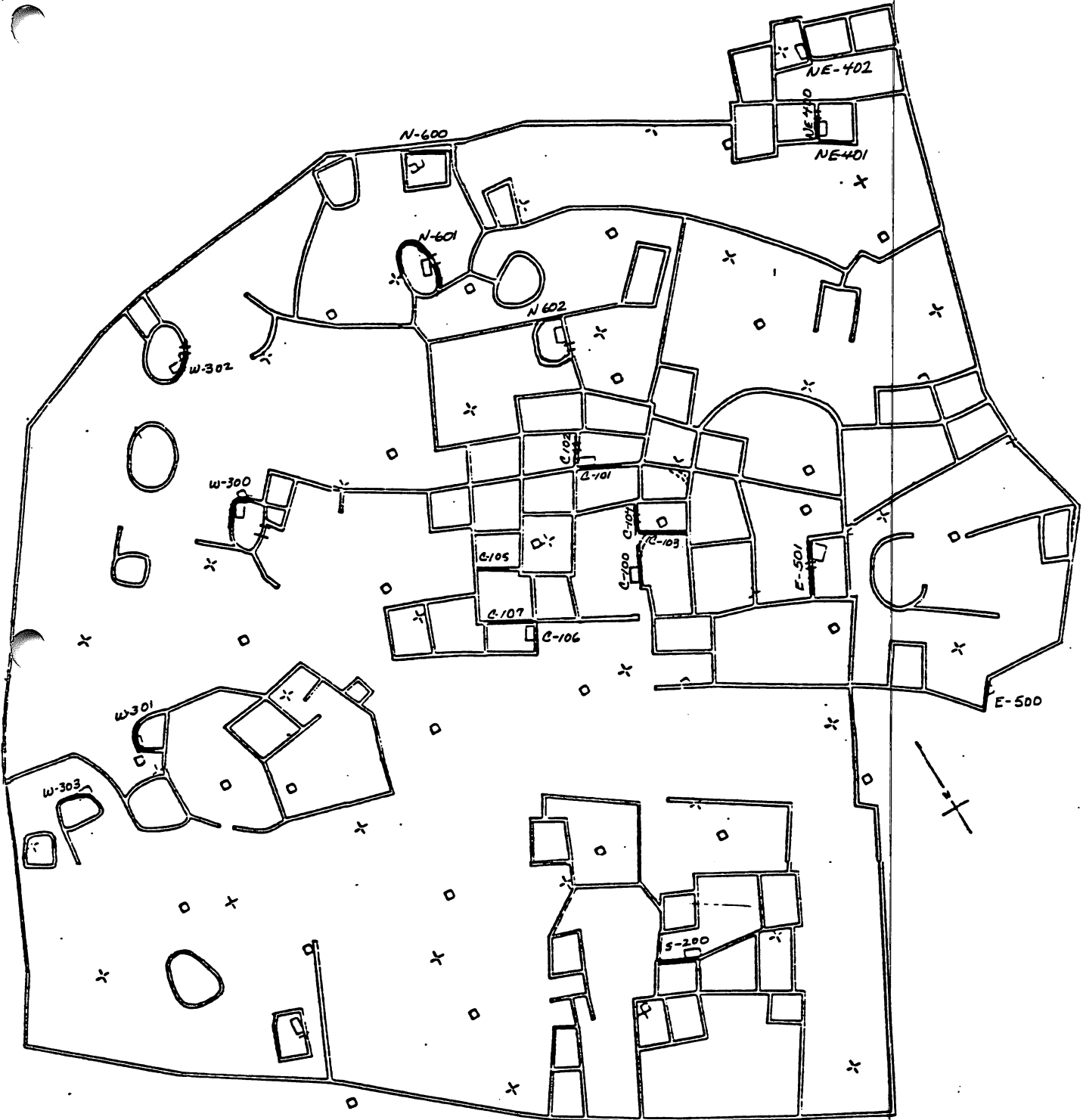


Figure 1. Location of walls and wall sections investigated in 1984 at Shoofly Village.

MASONRY WALLS AT SHOOFLY VILLAGE

A general impression of the architecture at Shoofly is that it is substantial, functional and contains some unique architectural features, but it lacks the technical and artistic excellence ascribed to some Southwestern pueblo architecture, such as that found at Chaco Canyon or Mesa Verde. The architecture at Shoofly does, however, suggest a degree of technical sophistication and scale unique to the area.

The analyses and discussion of the masonry walls at Shoofly are presented from the perspectives of general construction techniques and building materials. This is followed by a discussion of the relationship between wall construction and types of architectural structures. A preliminary typology of masonry walls is offered to provide a framework for future research at the site.

BUILDING MATERIALS

The primary building materials used in wall construction at Shoofly consist of locally-abundant bedrock basalts and sandstones. The latter appear as either a very coarse variety containing fairly large rolled sand particles and ranging in color from reddish pink to a pinkish gray, or a finer sandstone which is reddish orange or pink. The basalt is a coarse variety that exhibits dimpling or shallow vesicles. Some basalts appear to be layered or almost tabular in structure. Both mano and metate fragments of basalt and coarse sandstone occur frequently as construction elements in the walls or wallfall. White and gray limestones are more rare in wall construction, but nevertheless, are quite conspicuous in many of the walls. The limestone is a very fine-grained variety and is non-

local, being transported into the site from a source located km from Shoofly.

Table 1 indicates the proportions of different material types found in a selection of walls. Bedrock sandstone provides the bulk of building stones for wall construction. Table 2 indicates the proportional differences in the use of these building materials in various walls. Some distinct differences are indicated by the ratios. For example, there is a conspicuous absence of basalt in W-301 and N-600, while C-107 and W-300 have very low frequencies of this type of material also. A notable predominance of coarse sandstone was identified in C-105 and c-107, while N-602, N-600, NE-400 and W-300 have predominately fine sandstone. These results are subject to change since the figures represent only portions of an entire architectural structure, and building material may vary considerably within the length of a wall.

PREPARATION OF BUILDING MATERIAL

Preparation of building stones for wall construction appears to have been minimal. Few stones have been exposed that could be considered to be formally shaped to fit the contours of a wall. Rather, a selection of appropriate natural shapes and sizes appears to have been the primary strategy in wall construction. The orientation or placement of specific faces of the stones is an associated technique.

WALL COURSES

The walls investigated to date have been found to be either single-course or double-course walls. Single-course walls are defined as a vertical series of courses where the width is the meas-

	BASALT	FINE SANDSTONE	COARSE SANDSTONE	LIMESTONE	TOTAL
BUILDING MATERIAL	(84) 24%	(144) 40%	(114) 32%	(15) 4%	(357) 100%

Table 1. Material types used in a sample of 15 walls at Shoofly Village. Figures represent all stones recorded in wall drawings. Individual stone size and wall heights were variable.

WALL	BASALT	FINE SANDSTONE	COARSE SANDSTONE	LIMESTONE	TOTAL
C-100	(9) 53%	(7) 41%	(1) 6%		(17) 100%
C-102	(15) 20%	(32) 44%	(19) 26%	(7) 10%	(73) 100%
C-104	(8) 17%	(15) 33%	(19) 41%	(4) 9%	(46) 100%
C-105	(2) 11%	(4) 21%	(12) 63%	(1) 5%	(19) 100%
C-106	(3) 16%	(9) 47%	(7) 37%		(19) 100%
C-107	(1) 6%	(3) 19%	(12) 75%		(16) 100%
S-200	(9) 60%	(1) 7%	(5) 33%		(15) 100%
W-300	(1) 5%	(11) 58%	(7) 37%		(19) 100%
W-301		(6) 46%	(7) 54%		(13) 100%
NE-400	(6) 40%	(9) 60%			(15) 100%
NE-401	(10) 67%	(5) 33%			(15) 100%
E-501	(9) 30%	(8) 27%	(11) 37%	(2) 6%	(30) 100%
N-600		(10) 63%	(6) 37%		(16) 100%
N-601	(6) 40%	(6) 40%	(3) 20%		(15) 100%
N-602	(5) 17%	(18) 62%	(5) 17%	(1) 4%	(29) 100%

Table 2. Percentages of building material types in a selection of walls at Shoofly Village.

urement of a single stone. Double-course walls are constructed in a vertical series of courses that are two stones in width. Width dimensions are difficult to assess in a standardized fashion because of the variability within walls and the degree of deterioration of the walls. However, representative widths of single-course walls vary from .31m to .55m, while double-course walls range from .44m to .71m. Table 3 lists the single- and double-course walls investigated to date with their dimensions. The exception to these clustered widths is a wall in the northeast roomblock, Wall NE-402, which appears to be either a double wall consisting of two single courses, 99 cm across, or an unusually wide double-course wall with a definite core approximately 25 cm in width. Further excavation is needed to clarify the nature of this wall.

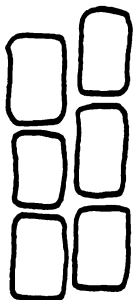
The spatial distribution of this sample of single- and double-course walls does not suggest that either of these types of walls is confined or limited to specific areas of the site. Each type appears in all major areas of the site, although double-course walls are not indicated to be present in the southern roomblock in Table 3. These have been noted in this area by surface indications.

VARIABILITY IN DOUBLE-COURSE WALLS

Double-course walls have either interlocking/articulated stones or aligned stones to form a double-course. In some cases, a third variation is incorporated, in which stones are partially overlapped. Figure 2 illustrates the variations in double-course walls at Shoolfly. In some cases, the degree of interlocking or articulation between interior and exterior course stones is minimal, and the technique may actually be carried into the next course above or below.

<u>SINGLE-COURSE</u>	<u>WIDTH</u>	<u>DOUBLE-COURSE</u>	<u>WIDTH</u>
C-100	.47m	C-101	.60m
S-200	.33m	C-102	.58m
W-302	.40m	C-103	.57m
E-501	.44m	C-104	.69m
N-601	.55m	C-106	.52m
N-602	.31m	C-107	.55m
		W-300	.66m
		W-301	.55m
		W-303	.47m
		NE-400	.65m
		NE-401	.60m
		E-500	.71m
		N-600	.44m

Table 3. Widths of single-course and double-course walls at Shoofly Village.



A. Aligned



B. Interlocked or
Articulated



C. Overlapping

Figure 2. Variation in Double-Course walls at Shoofly Village.

In these cases, the double course is produced when opposite face stones overlap between two vertical courses. Figure 2-C illustrates this technique. This usually occurs in conjunction with the interlocking/articulated technique shown in Figure 2-B as somewhat infrequent occurrences and not as extended segments or whole walls.

With the exception of the potential double wall (NE-402), the masonry walls at Shoofly lack distinct cores (e.g., cobble or rubble) between the interior and exterior faces of a course. Instead, mortar in the form of a reddish-brown adobe is used in conjunction with small chinking stones, pottery sherds, and cobble-sized stones of various material types between courses. Because the shapes of the stones that are used in double-course walls vary and are irregular, there is no regularly defined core area to be filled with mortar and smaller filler elements. The amount of mortar between interior and exterior stones in a course thus varies depending on the size and shape of stones.

HORIZONTAL COURSING

Distinct horizontal coursing is suggested in most walls where multiple courses are still standing or where wall fall is exceptionally revealing. No formal or defined patterns, such as varying the stone sizes in alternate courses, have been found. Figure 3 illustrates 9 courses in a wall section (C-102) from a deep room in the central roomblock. Coursing has been attempted, although the absence of prepared or pre-shaped stones somewhat limits an effect of precise courses. Two smaller, flat stones may be substituted to equal the size of others.

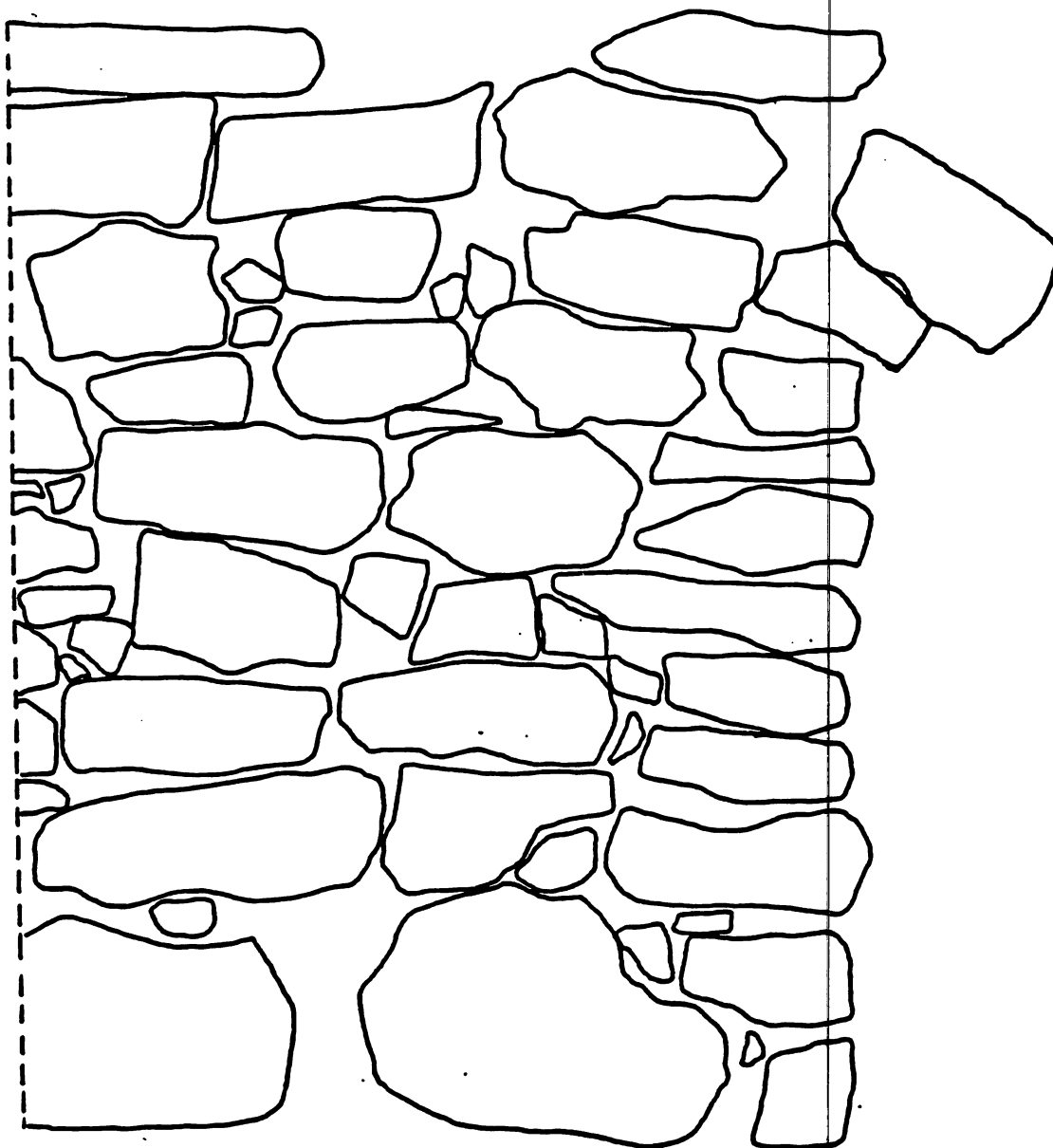
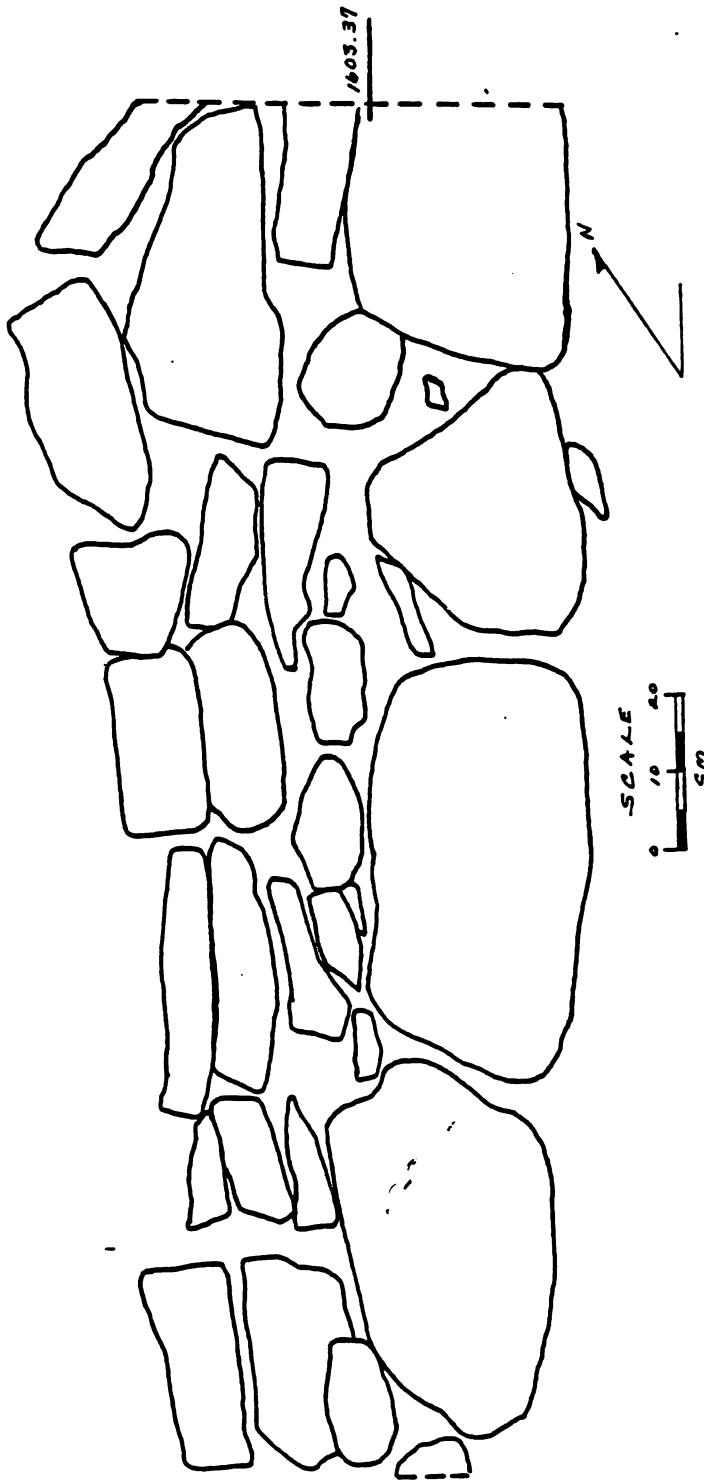


Figure 3. Horizontal courses in wall construction (C-102) from a room in the central roomblock at Shoofly Village.

The most distinct construction pattern in horizontal coursing, however, is found in the foundation or basal courses in many of the walls at Shoofly. In these walls, oversized boulders are used to form the basal course. Alternatively, the boulders may not necessarily be oversized, but the larger flat faces of the boulders were placed in an upright position. Figure 4 is an illustration of this pattern representing Wall E-501. Thirteen or 62% of the 21 walls investigated to date have basal courses constructed in this manner. These are listed in Table 4 which also indicates the material types present in the basal courses. It can be seen that enough variability exists in material used in basal courses to say that this pattern in basal courses is not dependent upon material used.

A unique construction characterizes at least one section of the compound wall. Only one exposure was made of the compound wall during the first season. This is located on the east side of the site where the compound wall makes a number of sharp turns. The basal course consists of at least 3, if not four, courses of very large basalt boulders placed upright. Figure 5 is a plan view of the compound wall's basal course as it was constructed in the eastern portion of the site. What variability from this pattern that may exist in the structure of the compound wall in other areas of the site is yet unknown. Nor is it known how many courses wide the compound wall was above this basal course. It will be interesting to compare the scale and construction techniques of this section of the compound wall to other areas of the compound wall to determine whether the wall was built as one large construction episode or constructed in incremental stages related to architectural units.



SHOOFLY VILLAGE
WALL E-501
ELEVATION
E 148 N/01
N. COINMAN

FIGURE 4. Construction technique for basal courses in a majority of walls at Shoofly Village. The example is Wall E-501 from the eastern portion of the site..

<u>WALL</u>	<u>MATERIAL TYPES IN BASAL COURSE</u>
C-100	Sandstone and Basalt
C-101	Sandstone and Basalt
C-102	Sandstone and Basalt
C-103	Basalt
C-107	Coarse Sandstone
S-200	Basalt
W-300	Sandstone
W-301	Sandstone
W-303	Sandstone and Basalt
E-500	Basalt
E-501	Sandstone and Basalt
N-600	Sandstone

Table 4. Walls with over-sized boulders in the basal courses and the building material used.

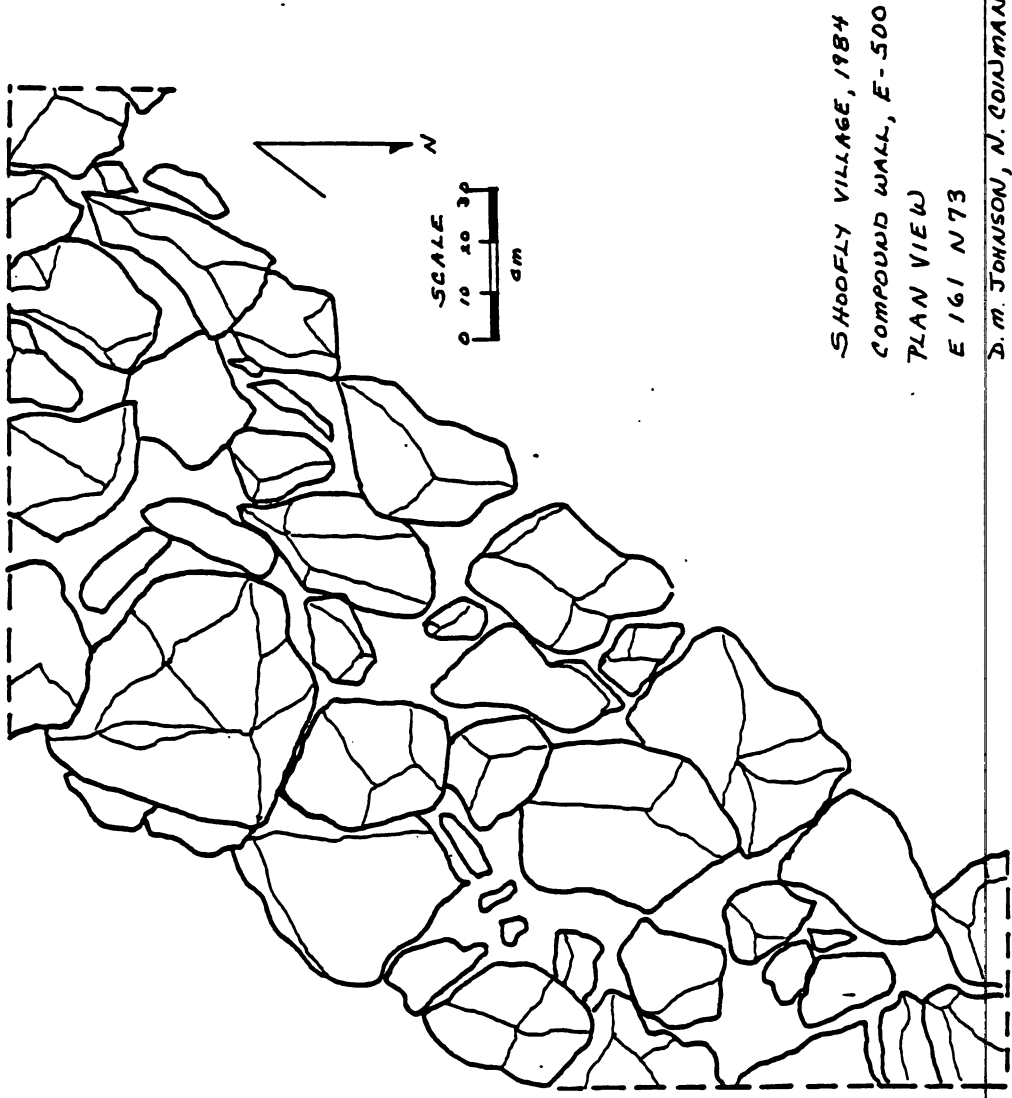


Figure 5. Plan view of compound wall with at least 3 basal courses of oversized, upright boulders (Wall E-500).

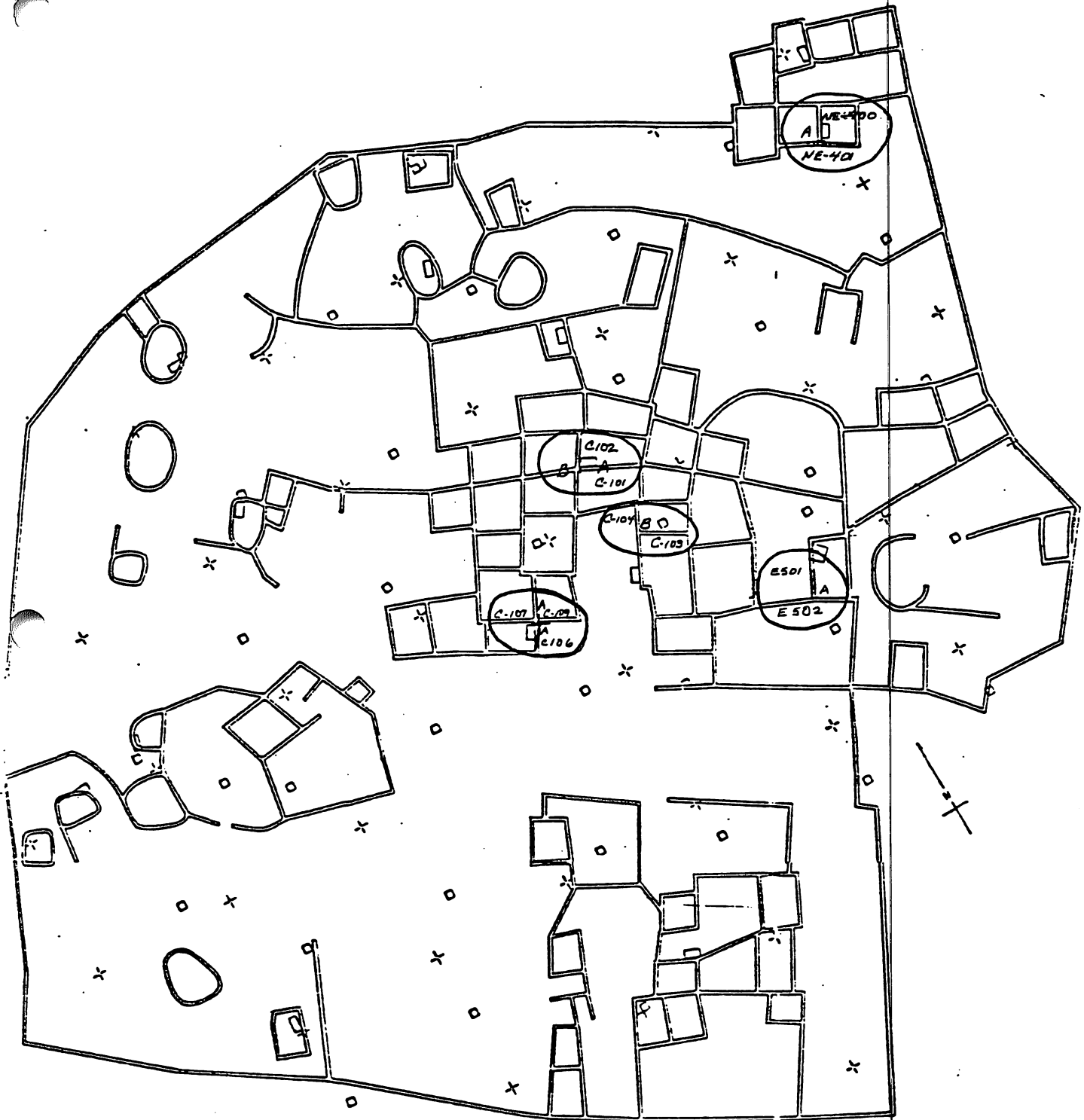
In contrast to the larger facings in the basal courses, most of the upper courses exhibit the shorter faces or sides for exterior exposures. The larger flat faces are hidden in the interior of the wall and placed horizontal. An exception may be Wall C-101, in which the vertical surface of this wall is exceptionally flat, exhibiting many courses or stones that appear larger than those in most upper courses. This wall was the only example to date of a plastered surface. The construction of a flat surface may have been considered more amenable to wall plastering. Alternatively, the plaster remaining between the courses may produce a flatter appearance in contrast to unplastered walls whose surfaces project beyond the receding mortar.

BONDING AND ABUTTMENTS

Bonding or abutments in wall junctures have been identified at five locations indicated in Figure 6. Wall C-101 abutts C-102, while Walls C-103 and C-104 are bonded. Wall NE-400 abutts NE-401. The construction configuration for Walls C-106 and C-107 is unusual. Figure 7 illustrates the complex relationship among these and two other walls. It appears that C-107 abutts Wall C-109. C-106 is actually offset from C-108 and may also be abutted to C-109 since the western interior course of Wall C-106 is slumped inward, suggesting a weakened joint.

While the location of these bonds and abutments are still limited, there are a number of larger relationships that can be suggested in the direction of defining construction episodes and chronological relationships. The areas to be discussed are labeled in Figure 7A.

First, the abutment of C-101 to C-102 in the central room-



B = Bonded
A = Abutted

Figure 6. Locations of wall bonding and abutments at Shoofly Village.

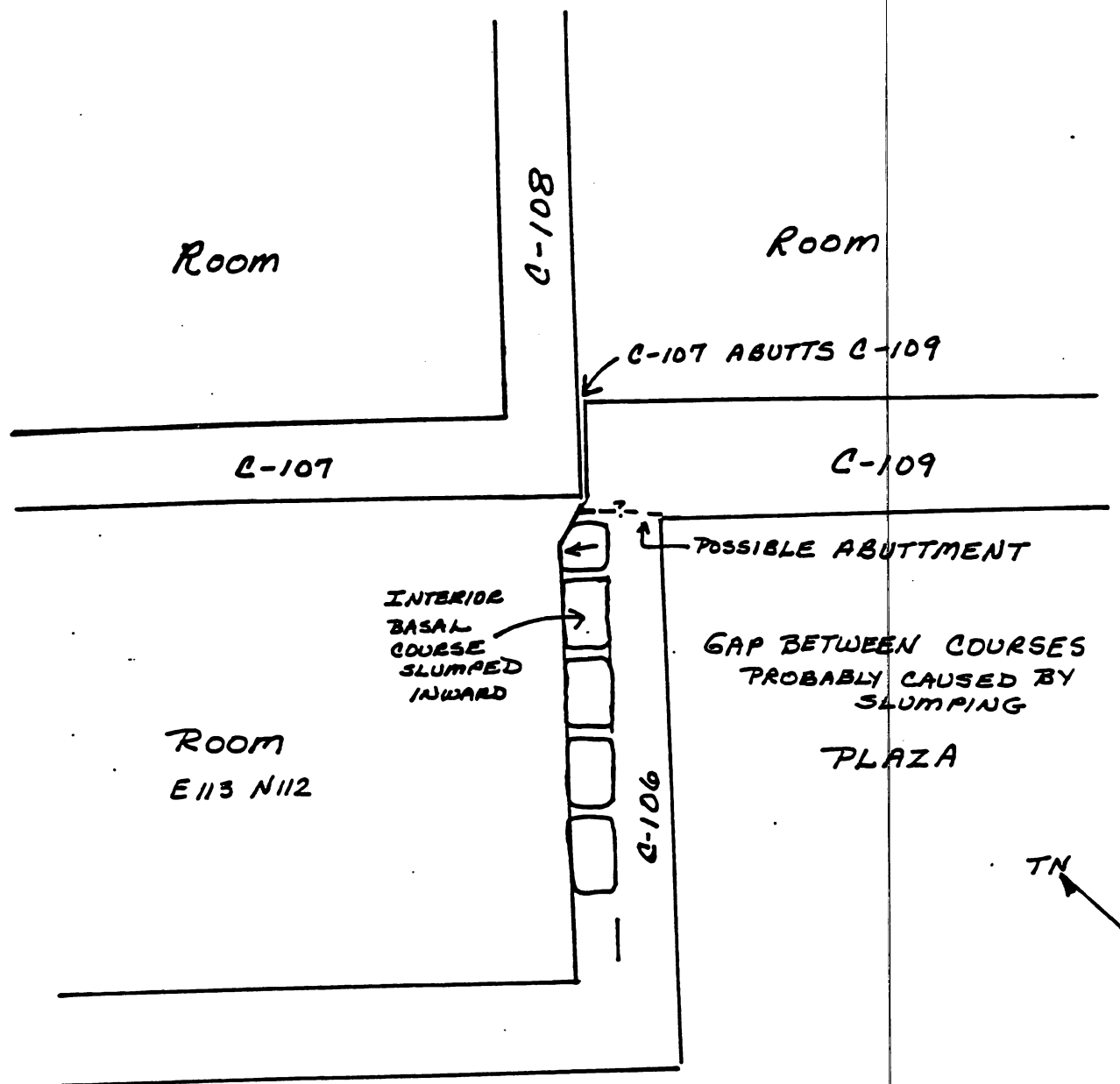


Figure 7. Spatial relationship of four walls in the southern section of the central roomblock at Shoofly.



Figure 7A. Suggested building episodes and construction units at Shoofly.

block may indicate that rooms A and AA were built in a later construction episode than the U-shaped roomblock around them. Where A, AA and AAA are located might previously have been a long plaza, then shortened by the construction of two rooms at the northern end and a walled plaza at the south end.

Rooms C and CC were built in one, possibly two, construction episodes onto the main roomblock to the north and west. The shape of CCC and the room just west of it suggest these were all building additions that lengthened the primary roomblock and extended it to the west.

The complex layout of Area E seems to imply that this entire block was added onto Area D with a previous compound wall between them superceded by a new compound wall with multiple sides and corners. Critical junctures to support this explanation are indicated by an X.

The southern roomblock, F, might have once been an isolated roomblock. The dotted line indicates the remains of an associated compound wall. Later, the southern roomblock (F) was connected to Area E, to the north, by a compound wall and plaza between the two areas. This sequence provides an explanation for the unusual jog in the compound wall along the east side.

In the northeast area of the site, a small, isolated roomblock appears to have been built around what might have been the original (or at least earlier) compound wall (G). Wall NE-401 was the south wall of a large room, later sub-divided into two rooms, indicated by the abuttment of Wall NE-400 to NE-401. The numbered rooms (1-5) could have been built in a clockwise order (or larger and then sub-divided) to form a U-shaped roomblock facing east with a long plaza

that was subsequently walled off as an extension of the compound wall.

Although these are mostly speculations, the few abutments are an initial step in determining relative building sequences and construction units within the site.

WALL CONSTRUCTION IN ARCHITECTURAL STRUCTURES

Only single-story walled structures have been observed to date at Shoofly. Standing walls range from .24m to 1.67m. A distinct variation in the heights of standing walls appears to be associated with two basic kinds of architectural structures. These are rectilinear rooms typical of masonry pueblo surface structures and circular or curvilinear structures that appear to be semi-subterranean. The standing walls in rectilinear structures range from .34m to 1.67m, while curvilinear walls range between .24m and .62m. Table 5 lists the standing heights of the walls in each of the two categories. Figure 8 illustrates the basic variability in wall heights between the two categories of masonry walls. The bimodal distribution may reflect a basic functional difference associated with architectural form. Excavation during the first season has not provided the definitive evidence in artifact assemblages or architectural features to establish functional associations yet. Distributional analyses of artifact categories and assemblages may define spatial patterns that co-occur with architectural patterns.

The lower heights of the circular walls and features, in conjunction with smaller quantities of wallfall, suggest these structures were constructed with half walls and more perishable superstructures. In contrast, the higher rectilinear walls and associated fill indicate full masonry walls supporting overhead beams and flat roofs. Substantial evidence of this type of construction has been recovered from three of the deep rooms in the central roomblock.

CURVILINEAR WALLS	HEIGHT	RECTILINEAR WALLS	HEIGHT
C-100	.43m	C-101	1.36m
W-300	.62m	C-102	1.67m
W-301	.52m	C-103	.93m
W-302	.24m	C-104	1.18m
W-303	.49m	C-105	1.36m
N-601	.32m	C-106	.80m
N-602	.52m	C-107	1.08m
		S-200	.49m
		NE-400	.42m
		NE-401	.35m
		NE-402	.34m
		E-501	.72m
		N-600	.59m

Table 5. Standing heights of curvilinear and rectilinear walls at Shoofly Village.

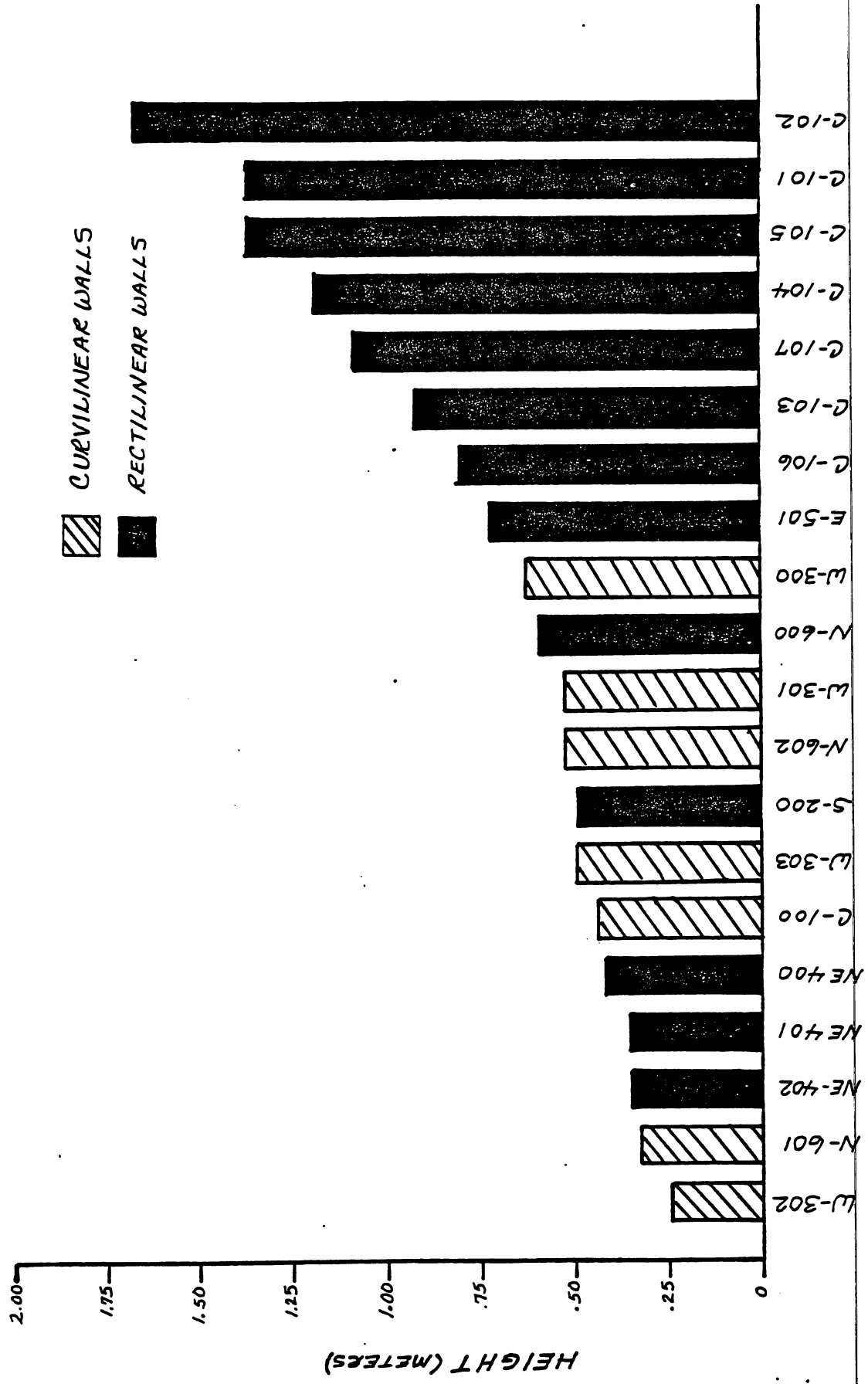


Figure 8. Heights of curvilinear and rectilinear walls at Shoofly.

The map of the site (Figure 1) suggests there is a spatial distribution to these types of architectural structures. Circular architecture appears predominately in the western half of the site. The semi-circular feature in the eastern portion of the site may in fact be a large rectangular walled space rather than a circular structure as it appears on the map. Wall C-100 is unique in that it is a curvilinear wall in the central roomblock. It's height and wall construction make it anomalous in this area. Only a portion of the exterior wall has been exposed. Where and how this wall articulates with the rectilinear walls to the north, east and south is yet to be investigated. The consistently lower heights of the rectilinear walls in the northeast roomblock, however indicate the possibility of a degree of variability in the rectilinear walls. This variability may be the result of construction changes that are associated with temporal differences. Alternatively, all of the rectilinear walls outside the central roomblock that have been investigated so far are consistently lower, suggesting the possibility of more extensive deterioration in these areas from natural erosional processes.

There are a number of variations within the two basic divisions of architectural structures. Some circular features are modified ovals or semi-circular, having straight walls and distinctly rounded corners in part of the structure. Wall W-301 has a semi-circular wall that meets a straight wall at 90 degree or greater angles, while W-303 and W-300 have gently curving walls with curved 'corners'. Wall C-100, mentioned above, is a curved wall in the central roomblock that appears to be extended from rectilinear walls in the east half of the structure. Another variation is

N-600, which has one curved corner but is essentially a rectilinear room.

An association between architectural shape and building material does not seem to be significant. Table 6 presents a breakdown of material types for curvilinear and rectilinear walls based on an examination of walls exposed to date. The finer sandstone is more prevalent in curvilinear walls, but both types of sandstone are almost equally represented in both kinds of walls. Limestone is rare in both but appears more frequently in rectilinear walls. This is possibly due to a more frequent use of limestone as chinking or filler stones in rectilinear walls, while the technique of chinking in itself is a less notable feature in curvilinear walls.

DOORWAYS AND ENTRYWAYS

Although most rooms or structures have not been exposed completely, 10 doorways or entryways have been located so far. These are listed in Table 7, which also provides the width dimensions of each. Rectilinear walls exhibit a standard doorway constructed or set into the wall. Circular structures have entryways that are essentially a break or gap in the wall. An exception to this is Wall N-601 in which a walled entryway extends into the interior of the structure. Both wood and stone were used as material for lintels in constructing doorways in rectilinear walls. Wall C-102 had a rectangular doorway with a wooden lintel. Large stone blocks provided a basal frame or a step set into this doorway. The doorway in Wall C-104 is precisely 1 meter wide. The lintel probably consisted of a large, rectangular block of limestone. This doorway and the one in Wall E-501 open onto large enclosed plaza areas. In Wall NE-400, the doorway appears to be a passageway between two

	<u>BASALT</u>	<u>FINE SANDSTONE</u>	<u>COARSE SANDSTONE</u>	<u>LIMESTONE</u>	<u>TOTAL</u>
CURVILINEAR WALLS (5)	(21) 22%	(48) 52%	(23) 25%	(1) 1%	(93) 100%
RECTILINEAR WALLS (10)	(63) 24%	(96) 37%	(91) 34%	(14) 5%	(264) 100%

Table 6. Distribution of material types used in curvilinear and rectilinear walls at Shoofly Village.

<u>ENTRYWAY/DOORWAY</u>	<u>ORIENTATION</u>	<u>WIDTH</u>
C-102	West	.70m
C-104	West	1.00m
W-300	East	.53m
W-301	East	.51m
W-302	East	*
NE-400	West	.74m
NE-402	East	.50m*
E-501	West	.85m
N-601	East	1.10m
N-602	East	.65m
* Tentative identification		

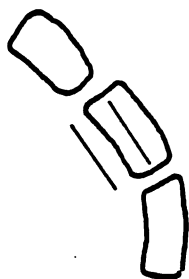
Table 7. Locations and dimensions of walls with doorways or entryways at Shoofly.

rooms. Further excavation will be needed to define a common pattern of entryways associated with circular and rectilinear walled structures. The distinctions made at this point may in fact be only a reflection of the lower walls associated with circular structures, but it seems unlikely that the curvilinear walls were full walls that would allow doorways constructed in a similar manner to those in rectilinear walls.

TYOLOGY OF WALLS

Both the variability in wall construction and the two basic divisions of architectural structures allow the development of a preliminary typology of walls at Shoofly. Six types are indicated to have been constructed at Shoofly from research conducted to date. Future work at the site will be needed to determine if these types are indeed real types and whether there are distinct spatial patterns and chronological implications associated with the construction of these types of walls.

Figure 9, I - VI, presents an illustration of each type and a description. Examples are listed below each type. The types are defined primarily as either single-course or double-course walls. Within these, two basic divisions are made for either curvilinear or rectilinear wall shape. A further distinction within the types is whether the long axes of the stones are parallel or perpendicular to the length of the wall. While the sample of walls investigated to date are not numerous and the number of examples of each type are also limited, the distinctiveness of the types appears to be significant.



TYPE I

DESCRIPTION: Single-course; curvilinear; rectangular stones with the long axes essentially parallel to the curve of the wall.

EXAMPLES: W-302
N-602



TYPE II

DESCRIPTION: Single course; curvilinear; trapezoidal or triangular-shaped stones; long axes perpendicular to the length of the wall; wider sides of the stones placed on the exterior to achieve a curving contour.

EXAMPLES: C-100
N-601



TYPE III

DESCRIPTION: Single-course; rectilinear; rectangular blocks or stones used; long axes parallel to the length of the wall.

EXAMPLES: E-501
S-200

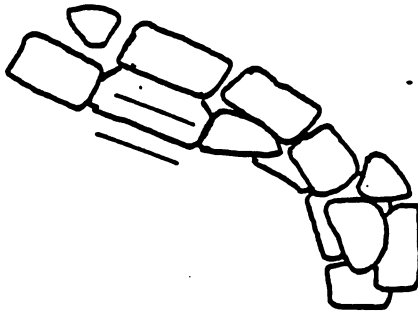
Figure 9, I - III. Types of single-course walls found at Shoofly Village.



TYPE IV

DESCRIPTION: Double-course;
rectilinear; interlocking/ art-
iculating stones; long axes
parallel to the length of the
wall.

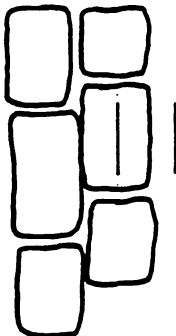
EXAMPLES: C-101
C-102
C-103
C-104
NE-400
NE-401



TYPE V

DESCRIPTION: Double-course;
curvilinear; interlocking,
overlapping, or aligned stones;
long axes essentially parallel
to the length and curve of the
wall.

EXAMPLES: W-300
W-301
W-303



TYPE VI

DESCRIPTION: Double-course;
rectilinear; stones aligned;
long axes parallel to the length
of the wall.

EXAMPLES: C-106
C-107
?N-600

Figure 9, IV - VI. Types of double-course walls found at Shoofly Village.

CONCLUSIONS

Investigations of the masonry walls at Shoofly during the first season have provided a preliminary description of the architecture at this site.

The development of a preliminary typology of walls was based on a broad division of architectural structures - those with curvilinear walls and those with rectilinear walls. Both of these types of structures are represented by single- and double-course walls. Variability in single- and double-course walls consisted of construction techniques related to the orientation and placement of stones in each course. In some types, the long axes are parallel to the length or curve of the wall, while in others, the long axes are perpendicular. The latter was found to be a rarer occurrence. While formal preparation or shaping of building stones was not a construction technique at Shoofly, careful selection of appropriate sizes and shapes produced distinct variations in coursing and general wall construction. The most distinct pattern across the site in all types of structures and in both double- and single-course walls was the construction of large basal courses with upright stones. Future investigations of the architecture will need to explore the reality of the types defined here and the possibility of spatial patterning in the construction of walled structures or units.

A comparison of the remaining heights of walls in curvilinear structures and rectilinear rooms supports the notion that a basic dichotomy exists in the architecture at the site. Curvilinear structures were found consistently to be low walls with 1 to 4 courses remaining and wallfall that is less substantial than that found associated with rectilinear rooms. The rectilinear walls in the central roomblock were consistently higher, while those in other

areas of the site were always lower. Although functional differences cannot as yet be attributed to the variability in architectural forms, the variability in the heights of rectilinear walls reflects significant construction differences among the rectilinear roomblocks at the site. The differences may imply chronological patterns in construction within the site.

Building materials used in the construction of masonry walls at Shoofly were predominately sandstones (72%) and basalt (24%). Some variability in the use of coarse or fine sandstones was present, but no distinct patterns associated with building material or architectural forms can be identified at the site.

The initial investigations have allowed some preliminary statements on chronological relationships and construction episodes among rooms, roomblocks and units within the site. These have been based primarily on wall abutments located in the course of excavations in rooms and architectural features. Substantial wall clearing of critical junctures and the excavation of segments of the compound wall will be needed for more definitive conclusions.

APPENDIX I
Summary Table of Wall
Data