

FLAKED STONE INDUSTRIES AT THE EARLY SALADOID TRANTS SITE, MONTSERRAT, WEST INDIES

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ABSTRACT

Archaeological testing at the Trants site (MS-G1), located on the windward coast of Montserrat, was undertaken in 1979 and 1990. A combination of systematic surface collection and test pit/unit excavation at the approximately 0.6 square kilometer site has produced a substantial sample of lithic artifacts. Eight radiocarbon dates from stratified deposits at Trants have documented that the site was minimally occupied ca. 480 B.C.-A.D. 320 during the Saladoid period. The lithic sample clearly represents the reduction sequence of chert cobbles, presumably from nearby sources within the northern Lesser Antilles, for flake production; and the reduction sequence of exotic raw materials, presumably from South America, for bead manufacture. Detailed attribute analysis of the lithic artifacts from the highly significant Trants site contributes to a better understanding of prehistoric technology and social interaction during the Saladoid period in the Lesser Antilles.

INTRODUCTION

The Trants site (MS-G1) is located on the windward coast of Montserrat, a small volcanic island located in the northern portion of the Lesser Antilles. Archaeological testing at the Trants site was initiated in 1979 by David Watters as part of his doctoral dissertation work, and included general surface collection and excavation of one 2.0 m x 2.0 m test unit (Watters 1980; see also Steadman et al. 1984). In 1990, the Trants site (MS-G1) was revisited by Watters of the Carnegie Museum of Natural History and researchers from the University of Maine at Farmington Archaeology Research Center to further assess the size and significance of the site. Based on this recent work, the maximum size of the site is estimated to be 0.6 square kilometers, much of which is threatened by the proposed expansion of the Blackburne Airport. In 1990, a total of 50,275 square meters of the site were systematically surface collected, and an additional 10.25 square meters were excavated through a combination 0.5 m x 0.5 m test pits and 1.0 x 1.0 m test units. Eight radiocarbon dates from stratified deposits at the site have documented that Trants was minimally occupied ca. 480 B.C.-A.D. 320 during the early and middle portions of the Saladoid period. These available dates represent some of the earliest dates for the Saladoid period in the entire West Indies (Rouse 1989; Siegel 1991).

Archaeological field work at the Trants site has produced an extremely large sample of Amerindian artifacts including ceramics, faunal remains, shell tools and lithic artifacts. This paper specifically deals with the flaked stone artifacts, but it should be mentioned that the lithic inventory from the site also includes a variety of ground stone tools such as pestles, celts or axe fragments, and various other tools including probable "burnishing" stones. A total of 2,460 lithic artifacts were analyzed in this study, clearly representing the reduction sequence of chert cobbles, presumably from nearby sources in the Lesser Antilles, for flake production; and the reduction of exotic raw materials, presumably from sources in South America, for bead manufacture. Although small relative to the remaining deposits at the site, the analyzed sample of lithic artifacts is sizeable enough and was collected in such a way that it adequately represents lithic technology at the Trants site. The following discussion treats separately those artifacts associated with flake production and those related to bead manufacture.

FLAKE PRODUCTION

A total of 2,347 lithic artifacts associated with flake production were analyzed including 1,186 which were recovered during surface collections and 1,161 recovered during subsurface testing from Watters' 1979 field work and the three 1.0 m x 1.0 m test units excavated in 1990. Of the subsurface lithic artifacts, 1 was recovered in situ, 479 were recovered from 6.4 mm mesh screen and 681 were recovered from 3.2 mm mesh screen. A portion of the total lithic inventory, including additional specimens recovered from the test pits, some of the 3.2 mm samples and others still from finer 1 mm mesh screen, have yet to be analyzed. The artifacts associated with flake production include 92 cores and core fragments, 1,709 flakes and 546 undifferentiated lithic fragments. Attributes were recorded for each individual artifact including raw material, color, alteration (i.e., water worn, weathered, heat altered), overall dimensions (i.e., length, width and thickness) and weight (Table 1).

Specific attributes including the number of flake scars present, percent cobble cortex, and the presence or absence of platform preparation were recorded for the cores and core fragments. Specific attributes recorded for flakes include reduction stage (i.e., primary and secondary), portion (i.e., complete, longitudinal, distal, proximal), platform type (i.e., unifacial, crushed, faceted), distal features (i.e., feathered, hinged, or step termination), and the presence or absence of cobble cortex and platform preparation. The general format for the analysis was based on a processual model developed by Collins (1975), with consideration given to the analytical models employed by Crabtree (1982). The approach is primarily technological with secondary consideration given to the potential function of the artifacts—an approach similar to that suggested by Pantel for the study of West Indian lithic assemblages (Pantel 1988).

Of the flakes and fragments, 215, or 10% showed clear signs of utilization, and six showed clear signs of intentional modification. Additional attributes for the flake tools were recorded including which edge was utilized or modified (i.e., distal, lateral, proximal), the length of utilized or modified edge, percent of total flake edge utilized or modified, direction of alteration (i.e., dorsal, ventral, or bifacial), and length of use wear flake scars and/or flake scars produced through intentional modification. The above attributes were also recorded for utilized lithic fragments, where applicable. All attribute and edge wear analysis was conducted with the aid of a 10-30X Bausch and Lomb binocular microscope, given the recognized difficulties in discerning natural damage from human use macroscopically (e.g., Young and Bamforth 1989:403-409).

Lithic raw materials intended for flake production likely came from nearby, nonlocal sources within the Lesser Antilles. Of the total sample, over 80% are combinations of tan, gray and white mottled chert, presumably from Long Island off the northern coast of Antigua; Antigua is situated roughly 25 kilometers east of Montserrat. The remaining chert artifacts range in color from white translucent to black opaque material, many of which likely fall within the color range of "Antigua" chert; these artifacts may represent other less well known sources, however. In any case, to date there are no known sources of siliceous lithic raw material on the island of Montserrat itself.

Raw material for flake production apparently arrived at Trants in its natural form as small cobbles and large pebbles, as evidenced by the general size of the cores, which range in maximum dimension from 2.28 cm to 9.85 cm and average 4.29 cm (see Table 1), and by the large percentage (37%) of cores, flake tools, flakes and fragments that retain some portion of cortical surface. Once brought to the Trants site, the nodules of chert apparently were reduced by both direct, free hand percussion, and bipolar reductive techniques.

A total of 92 cores and core fragments were recovered (Figure 1). Eighty-five of these were apparently knapped by direct, free hand percussion, while a total of seven exhibit bifacial crushing on opposing margins and provide evidence of bipolar reduction. Based on the high proportion of free hand cores, it appears that this was the predominant method of flake production at Trants. The occurrence of both of these techniques at the site, however, may represent a reductive sequence whereby direct free hand percussion of larger chert nodules was followed by the bipolar reduction of smaller specimens. The lithic technology at Trants is comparable to Saladoid lithic industries recorded at the Sugar Factory Pier site on St. Kitts and the Hacienda Grande site on Puerto Rico in that both reductive techniques are present. However, bipolar reduction apparently predominated at these other sites (Walker 1980, 1983, 1985).

Of the 2,255 flakes and fragments analyzed, 221 (10%) exhibit use as tools, while the remaining 2,034 are presumed to be either potential tools or waste debitage. When the frequency of debitage within various size ranges is compared to the frequency of utilized debitage within the same size ranges, certain patterns are noticeable (Figure 2). The proportion of utilized debitage to nonutilized debitage is much higher within the larger size ranges, suggesting that the site inhabitants selected for larger flakes to be used for various tasks. However, utilization is evident within nearly all size ranges.

The only exception are the smallest flakes, particularly those recovered in 3.2 mm mesh, none of which were found to exhibit any obvious signs of use. The production of small flakes for subsequent insertion into manioc "grater boards" as teeth has been documented through replicative study at the Sugar Factory Pier site on St. Kitts (Walker 1980, 1983) and has been suggested at the Pearls site on Grenada (Cody 1990). While the use of small flakes for this purpose cannot be ruled out at the Trants site, the results of the lithic analysis thus far indicate that this was not a major aspect of the lithic industry at Trants. The study used a cautionary approach, given that the attribution of small flakes to manioc processing based solely on size and shape is a difficult matter (DeBoer 1975).

The relatively simple flake technology documented at the Trants site is in marked contrast to earlier pre-ceramic lithic technologies documented in both the Greater and Lesser Antilles which are apparently dominated by a highly developed and complex blade technology in some cases (Cruxent and Rouse 1989; Davis 1974; Kozlowski 1974).

Several different types of utilization were recorded and apparently represent various functions. Ethnohistoric accounts of culturally related groups in the Antilles and northeastern South America record the use of chert flake stone tools for a variety of tasks such as cutting, sawing, scraping, engraving, and shaft shaving or straightening (e.g., Lovén 1935; Roth 1924; Rouse 1963).

The majority of utilized flakes and fragments, 138 (64%), show unifacial edge wear (Figure 3), and a smaller number, 77 (36%), exhibit bifacial edge wear. Of the tools with bifacial edge wear, a total of 34 (43%) exhibit bifacial crushing characterized by short, step terminated flake scars. A total of 14 specimens exhibit this crushing on one margin, and 20 have it on two opposing margins (Figure 4). Bifacial crushing on opposing margins provides further possible evidence of bipolar reduction at the site, but this type of edge wear may instead be the result of the use of these artifacts for various wedging functions (LeBlanc 1992).

A total of 18 flakes and fragments exhibit yet another type of damage, characterized by at least one sharply incurvate edge (Figure 5). These tools are the result of intense utilization and seemingly represent spoke shave tools, or implements used for shaft stripping and straightening.

Many of the utilized flakes (20%) show a combination of two or more of the above types of edge wear on several different margins, indicating relatively extensive and somewhat diverse usage. While 66% of the utilized flakes show less than 40% of the available edge altered, 12% fall into the "heavily utilized" range with more than 60% of the available edge altered. The intensity of usage exhibited by many of the tools suggests that they were used for a multitude of different purposes, and perhaps recycled by the same or different individuals.

Nine of the analyzed cores appear to have been used as tools also. Several of these core tools exhibit use as pecking stones (Figure 6) and the remainder show varieties of unifacial damage including incurvate edges like those mentioned above.

An additional six tools were classified as modified flakes (Figure 7). These tools represent flakes which have been intentionally altered through unifacial pressure flaking and retouch. The functions of the modified flakes are likely similar to that of the utilized flakes, namely various cutting and scraping tasks. Two specimens are similar to the utilized flakes which exhibited sharply incurvate edges, but appear to have been intentionally modified rather than shaped through use. The relatively small number of modified flakes recognized within the overall lithic sample supports the assumption that utilitarian lithic technology at Trants was relatively nonsystematic and spontaneous, and that little time was invested in manufacturing stone tools with fixed morphologies.

The vertical distribution of flake production artifacts indicate that this overall lithic technology persisted throughout the entire 800 year Saladoid occupation sequence at the Trants site. These materials were found in deeply stratified midden deposits radiocarbon dated as early as 480 B.C. \pm 80 (Beta-44828) (Table 2). Some flake production artifacts were recovered from deeper stratigraphic positions, thus providing perhaps still older examples of early Saladoid lithic technology.

BEAD MANUFACTURE

Perhaps the most exciting and socially revealing aspect of the lithic technology at the Trants site is the reduction of exotic raw materials for bead manufacture. Amerindian populations at Trants were trading for, or otherwise acquiring exotic minerals and gemstones, many of which clearly originated in South America (Boomert 1987a; Myers 1981). These materials include carnelian, diorite, amethyst, quartz, feldspar, jadeite or nephrite, and several as yet unidentified material types. A total of 113 (5%) artifacts in the lithic inventory from the site including whole and fragmentary beads, bead preforms, and bead debitage clearly exemplify this industry.

Analytical methods for examination of bead materials were established on the basis of a general lithic reductive technology, beginning with unshaped or slightly shaped categories and progressing to more complex combinations of reduction. This sequence is based on the amount of modification or shaping present in each category since the amount of shaping appears to generally reflect the complexity of reduction processes. Four stages of bead manufacture are present in the sample: unmodified or slightly altered (bead preform 1), minimally shaped (bead preform 2), well shaped (bead preform 3), and fully shaped. The final stage is represented by fully shaped whole and fragmentary drilled beads, as well as fully shaped partially drilled and undrilled specimens. The by-product of bead manufacture, or waste debitage including flakes and fragments, was recognized within the overall sample of lithic debitage and underwent the same attribute analysis as the flake production artifacts.

A total of 12 bead material specimens were unmodified or slightly altered (Figure 8). This stage, bead preform 1, is characterized by artifacts which are clearly bead material and for which the shape and overall size indicate suitability for further reduction. On average, these artifacts measure 2.29 cm long, 1.79 cm wide, and 1.09 cm thick, and weigh an average of 7.28 g (see Table 1).

The second stage of bead manufacture (bead preform 2) is represented by a total of 19 artifacts (Figure 9). It is characterized by specimens of bead raw material which have been further shaped through flaking. The inventory of bead preforms at this stage are predominantly "block" shaped. On average, these artifacts measure 2.11 cm long, 1.49 cm wide, and 1.21 cm thick, and weigh an average of 4.97 g (see Table 1).

The third stage of bead manufacture (bead preform 3) includes those artifacts which have undergone additional shaping through flaking and/or grinding and pecking, in most cases for rounding and end tapering (Figure 10). A total of 12 artifacts in the sample can be attributed to this stage. On average, these artifacts measure 2.20 cm long, 1.45 cm wide, and 0.92 cm thick, and weigh an average of 3.28 g (see Table 1).

In the final stage of bead manufacture, the bead raw material has been fully shaped; a total of 23 specimens fall within this category (Figure 11). It is characterized by a high degree of workmanship in which evidence of earlier reduction stages such as pecking and flaking has been largely removed by grinding and polishing. Although the exact techniques of grinding are uncertain, one grooved abrading stone from Trants, curated by the National Trust Museum on Montserrat, suggests one method. Whole and fragmentary drilled beads, as well as partially drilled and undrilled specimens, are included in the "fully shaped" category. The majority of the drilled items exhibit biconical perforation and were apparently drilled from both ends. As ethnohistorically documented for Guyana Amerindians, the skilled lapidists likely used a hollow reed in conjunction with a very fine sand abrasive (Roth 1924).

The sample of fully shaped and finished beads recovered at the Trants site in 1979 and 1990 is relatively small compared to another collection from the site. Harrington (1924) was the first to write about the S.W. Howes collection, curated at the former Museum of the American Indian Heye Foundation (MAI) in New York (now the National Museum of the American Indian, Smithsonian Institution). In his paper entitled "A West Indian Gem Center," he briefly described the well-controlled technology exhibited in the Howes collection from the Trants site, and used the presence of numerous exotic raw materials to support theories of long-range trade networks. Harrington attributed the bead manufacture to Carib populations, but recent scientific excavations have proven their unequivocal presence in early Saladoid contexts. Watters has analyzed the collection of about 500 bead specimens in the Howes collection through an exhaustive attribute analysis which groups beads by raw material and morphological category. His research provides an excellent basis for comparison with the specimens more recently collected from the site.

Four general bead types were recognized within our sample and are comparable to bead types within the MAI Howes collection, as defined by Watters. These include small, round, flat "discoïd" beads; convex "barrel shaped" beads; cylindrical beads; and beads produced through the minimal alteration of natural crystals (Figure 12). Within each of these broad categories, beads vary in transverse section from multi-faceted to fully rounded, and from undrilled to completely drilled.

The majority of the early stage reduction beads recovered in recent testing at the site are red and orange, translucent carnelian (88%); the same is true of the bead material debitage, with carnelian (65%) comprising (65%) of the sample. A much larger variety of raw materials is represented in both the limited sample of finished beads, and those finished beads in the Howes collection. These materials include white translucent quartz crystals, translucent feldspar crystals or "moonstones," black and white mottled diorite, dark green jadeite or nephrite, and purple and white translucent amethyst. The early Saladoid inhabitants of Trants presumably traded for, or otherwise acquired these materials for personal

adornment because of their exotic color and high gloss, and perhaps more importantly because of their value due to their limited availability.

Exchange of exotic semi-precious gem stones is documented both ethnographically and archaeologically. Ethnographic accounts of both lowland South American groups and more closely associated groups in the West Indies have documented ceremonial exchange of exotic stones, particularly "greenstone" or nephrite (e.g., Boomert 1987a; Lovén 1935; Myers 1981). The archaeological record in the West Indies also documents Saladoid trade of these semi-precious items on Antillean islands including Grenada, Barbados, Martinique, Montserrat, Nevis, St. Croix and Puerto Rico (e.g., Boomert 1987b; Cody 1990; Mattioni 1982; Morse 1989; Rouse and Alegria 1990; Walker 1985; Watters 1980; Wilson 1989).

Trants artifacts in early stages of reduction and bead debitage are represented by predominantly carnelian, whereas finished beads are represented by a much wider variety of raw material. This suggests that some beads were manufactured at the site, while others were imported as finished products. Materials such as carnelian arrived at Trants in an unmodified or minimally altered form and were subsequently manufactured into beads by the inhabitants. Other materials such as diorite and amethyst may have arrived as complete beads after having been manufactured elsewhere.

The vertical distribution of bead manufacture materials at the Trants site indicates that long-range exchange networks, presumably with South America, were in place throughout the entire Saladoid period. These materials were found in deeply stratified midden deposits which have been radiocarbon dated as early as 480 B.C. \pm 80 (Beta-44828) (see Table 2). Some bead specimens were recovered from even deeper stratigraphic positions, thus providing some of the earliest evidence of this Amerindian technology now known in the West Indies and northeastern South America.

CONCLUSIONS

Recent investigations at the highly significant Trants site on the windward coast of Montserrat have clearly demonstrated a long-term, intense Amerindian occupation during the Saladoid period. Lithic artifacts from ceramic period sites have been a long overlooked source for understanding and interpreting West Indian prehistory. This analysis has documented the use of a limited, yet important lithic technology for utilitarian purposes and a highly refined lithic technology for bead manufacture.

Saladoid populations at Trants were using nonlocal chert for flake production throughout the entire occupational sequence at the site which spanned at least 800 years, ca. 480 B.C to A.D. 320. Analysis of the flake production artifacts from Trants suggests the likely use of various flakes for a multitude of utilitarian tasks. This industry is characterized by the reduction of imported chert cobbles for production of simple flake tools. The importance of this lithic technology has gone largely unnoticed in past studies due to the relatively nonglamorous nature of the artifacts. Continued study of this industry at the Trants site as well as other sites in the broader region will contribute to a more comprehensive understanding of the highly complex lifeways of Saladoid populations in local and regional contexts.

The presence of exotic raw materials and semi-precious gem stones, indicative of long-range trade and perhaps ceremonial exchange, have long been recognized as one of the most intriguing aspects of West Indian prehistory. Watters ongoing study of the Howes bead collection from the Trants

site, combined with samples from the recent controlled excavations, should provide a better understanding of this extremely significant and socially revealing industry. In any case, it can be now documented as early as 480 B.C. and thereafter throughout the Saladoid period in this portion of the Lesser Antilles.

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ARTIFACT CATEGORY	SAMPLE SIZE		WEIGHT (g)	LENGTH (cm)	WIDTH (cm)	THICKNESS (cm)	MAXIMUM DIMENSION (cm)
BEAD PRODUCTION MATERIAL							
Bead Debitage Flakes	25	Mean	* 2.10	1.44	1.28	0.48	1.54
		Range	<0.01-20.89	0.46-3.60	0.33-4.55	0.09-1.88	0.46-4.55
Bead Debitage Fragments	21	Mean	* 0.84	1.25	0.87	0.61	1.26
		Range	<0.01-2.83	0.32-2.31	0.07-1.52	0.03-1.40	0.40-2.31
Bead Preform 1	12	Mean	7.28	2.29	1.79	1.09	2.30
		Range	0.92-38.18	1.07-4.48	0.77-3.58	0.55-2.09	1.07-4.48
Bead Preform 2	19	Mean	4.97	2.11	1.49	1.21	2.11
		Range	0.45-14.94	1.00-3.55	0.85-2.13	0.33-2.07	1.00-3.55
Bead Preform 3	12	Mean	3.28	2.2	1.45	0.92	2.20
		Range	0.90-7.30	1.70-3.67	0.91-2.08	0.45-1.38	1.70-3.67
FLAKE PRODUCTION MATERIAL							
Core Fragment	5	Mean	13.34	3.20	2.29	1.42	3.20
		Range	3.03-28.73	1.88-4.21	1.37-3.63	0.83-2.42	1.88-4.21
Core	75	Mean	40.12	4.29	3.26	2.16	4.29
		Range	2.86-345.20	2.28-9.85	1.86-8.05	1.00-5.71	2.28-9.85
Core Tool	12	Mean	36.86	4.34	3.28	2.26	4.34
		Range	5.42-130.00	2.53-7.07	2.42-4.62	1.00-4.34	2.53-7.07
Flakes Complete & Fragmentary	1529	Mean	** 2.14	1.65	1.50	0.50	1.87
		Range	<0.01-43.85	0.08-6.33	0.19-7.89	0.01-3.84	0.35-7.89
Flakes Complete	1120	Mean	*** 2.34	1.70	1.56	0.52	1.93
		Range	<0.01-43.85	0.08-6.33	0.21-7.89	0.01-3.84	0.38-7.89
Modified Flakes	3	Mean	17.06	2.85	3.76	1.19	3.76
		Range	5.60-39.24	2.19-4.05	3.07-4.90	0.64-2.07	3.07-4.90
Utilized Flakes	177	Mean	6.60	2.70	2.42	0.89	3.02
		Range	0.17-71.85	0.66-6.55	0.74-7.54	0.15-2.43	1.00-7.54
Fragments	505	Mean	**** 3.18	1.75	1.23	0.74	1.77
		Range	<0.01-213.80	0.07-9.76	0.12-7.24	0.05-5.37	0.36-9.76
Modified Fragments	3	Mean	6.69	2.64	2.11	1.46	2.64
		Range	3.79-9.26	2.02-3.02	1.79-2.35	1.13-1.86	2.02-3.02
Utilized Fragments	38	Mean	5.96	3.00	1.85	1.12	3.02
		Range	0.21-16.63	0.90-4.72	0.81-3.36	0.07-2.00	0.90-4.72

* Mean Weight does not include one specimen which weighs less than 0.01 grams.

** Mean Weight does not include 54 specimens which weigh less than 0.01 grams each.

*** Mean Weight does not include 37 specimens which weigh less than 0.01 grams each.

**** Mean Weight does not include seven specimens which weigh less than 0.01 grams each.

Table 1 Mean and Range of the Weight, Length, Width, Thickness, and Maximum Dimension of Lithic A  the Trants Site (MS-G1), Montserrat.

PROVENIENCE: UNIT/LEVEL/ STRATUM WITH C-14 DATES	ARTIFACT CATEGORY							TOTAL
	FULLY SHAPED BEADS	BEAD DEBITAGE	BEAD PREFORMS	CORES/CORE FRAGMENTS	CORE TOOLS	FLAKE PROD. DEBITAGE	UTILIZED/MODIFIED DEBITAGE	
N396 E571								
(1.0 m x 1.0 m)								
0-10 A						16	2	18
10-20 A						25	1	26
20-30 B						9	1	10
30-40 B	1					5	2	7
40-50 B				1		23		24
50-60 C* 480 B.C. ± 80	1	3	1			28	2	34
60-70 C* 480 B.C. ± 80			1			1		2
70-80 C						4		4
90-100 C						1		1
UNIT TOTAL	2	3	2	1		112	8	126
N421 E645								
(1.0 m x 1.0 m)								
0-10 A						31		31
10-20 A	1	1	1			86		88
20-30 A						18	1	19
20-30 B						39		39
30-40 B		2	1			19		22
40-50 B						8		8
50-60 B						2		2
60-70 B						1		1
60-70 C* A.D. 210 ± 90		5		1		60	1	67
70-80 C* 10 B C ± 90	1					143		143
80-90 C						21		21
80-90 D						3		3
90-100 C						1		1
90-100 D						4		4
UNIT TOTAL	2	8	2	1		436	2	449
N596 E571								
(1.0 m x 1.0 m)								
0-10 A	1		1	1		21	1	24
10-20 A		1				25	1	27
20-30 A						33	3	36
30-40 B* A.D. 60 ± 70	5	1		1		54		56
40-50 B			1			27	2	30
50-60 B	1	1				14		15
60-70 B	3					17		17
70-80 B* 440 B.C. ± 90	1					4		4
80-90 C						2		2
UNIT TOTAL	11	3	2	2		197	7	211
DRW 1979 T.U. 1								
(2.0 m x 2.0 m)								
0-10		1		4		63	2	70
10-20		5	1	1	1	102	9	119
20-30		4		2		74	7	87
30-40		2		1		43	7	53
40-50				3	1	39	1	44
50-60				1		18	4	23
60-70						1		1
UNIT TOTAL		12	2	11	2	340	30	397
TOTAL	15	26	8	15	2	1085	47	1183

* radiocarbon dated level

Table 2. Vertical Distribution of Flaked Stone Artifacts Recovered During Test Unit Excavation at the Trants Site (MS-G1), Montserrat.

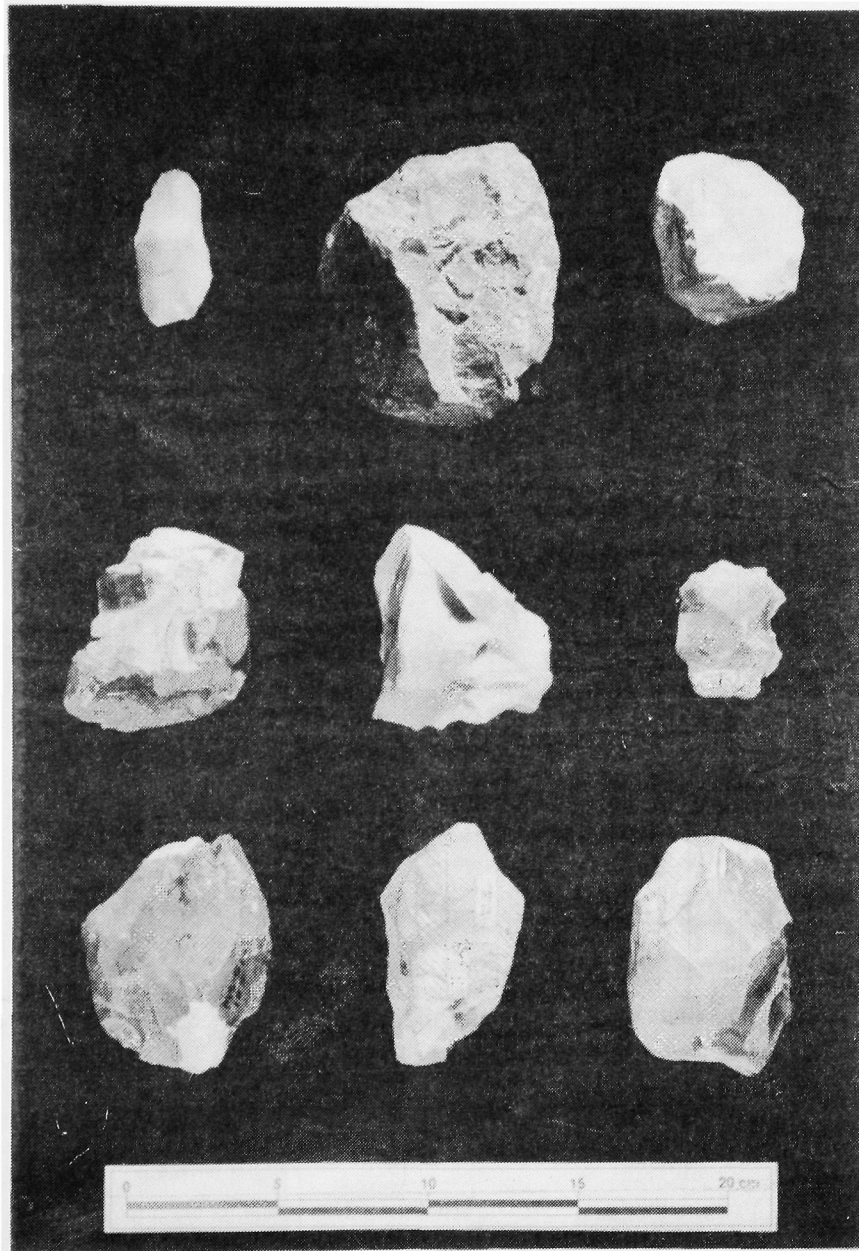


Figure 1. Lithic cores recovered from the Trants site (MS-G1), Montserrat.

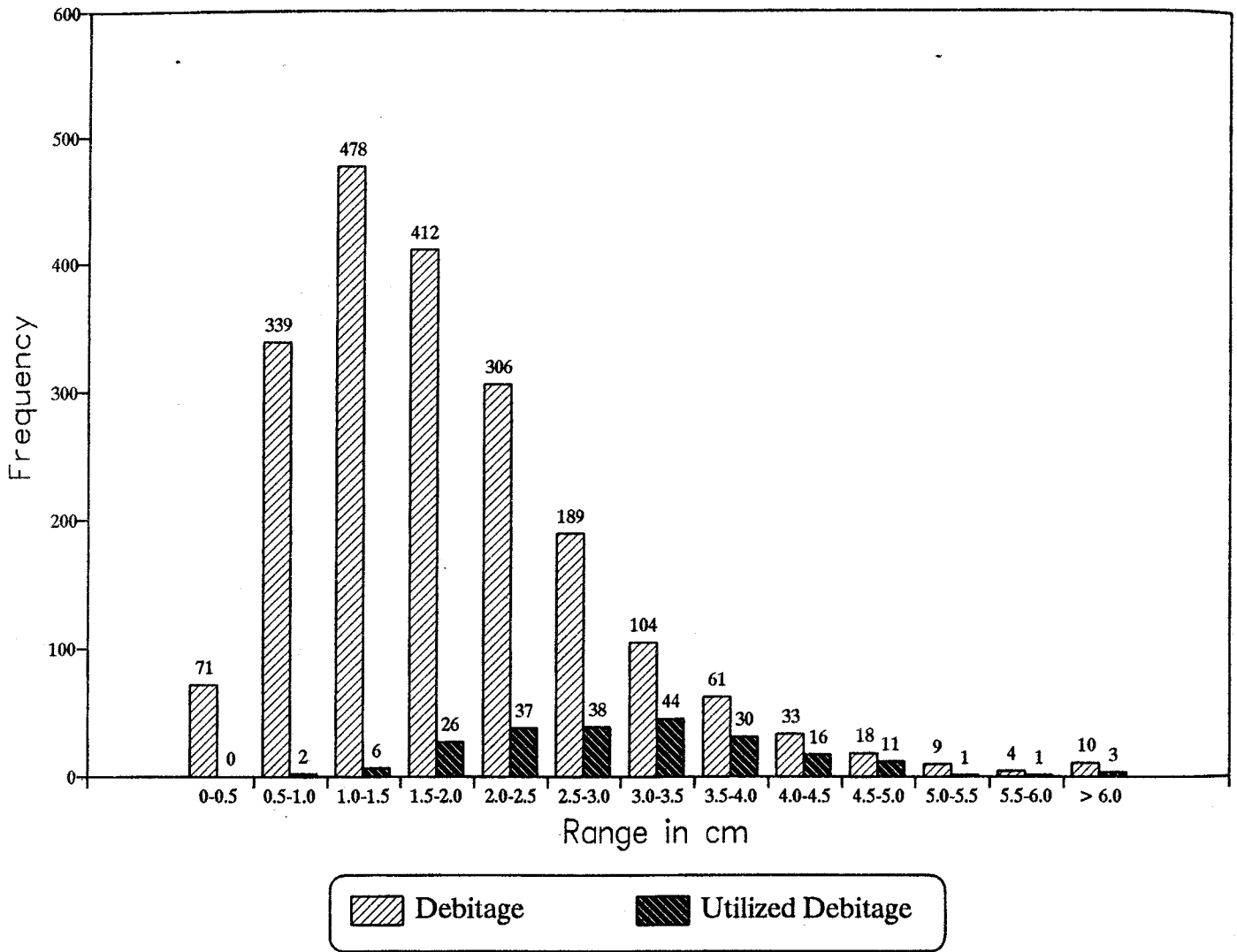


Figure 2. Histogram of Trants site debitage and utilized debitage frequencies by maximum dimension.

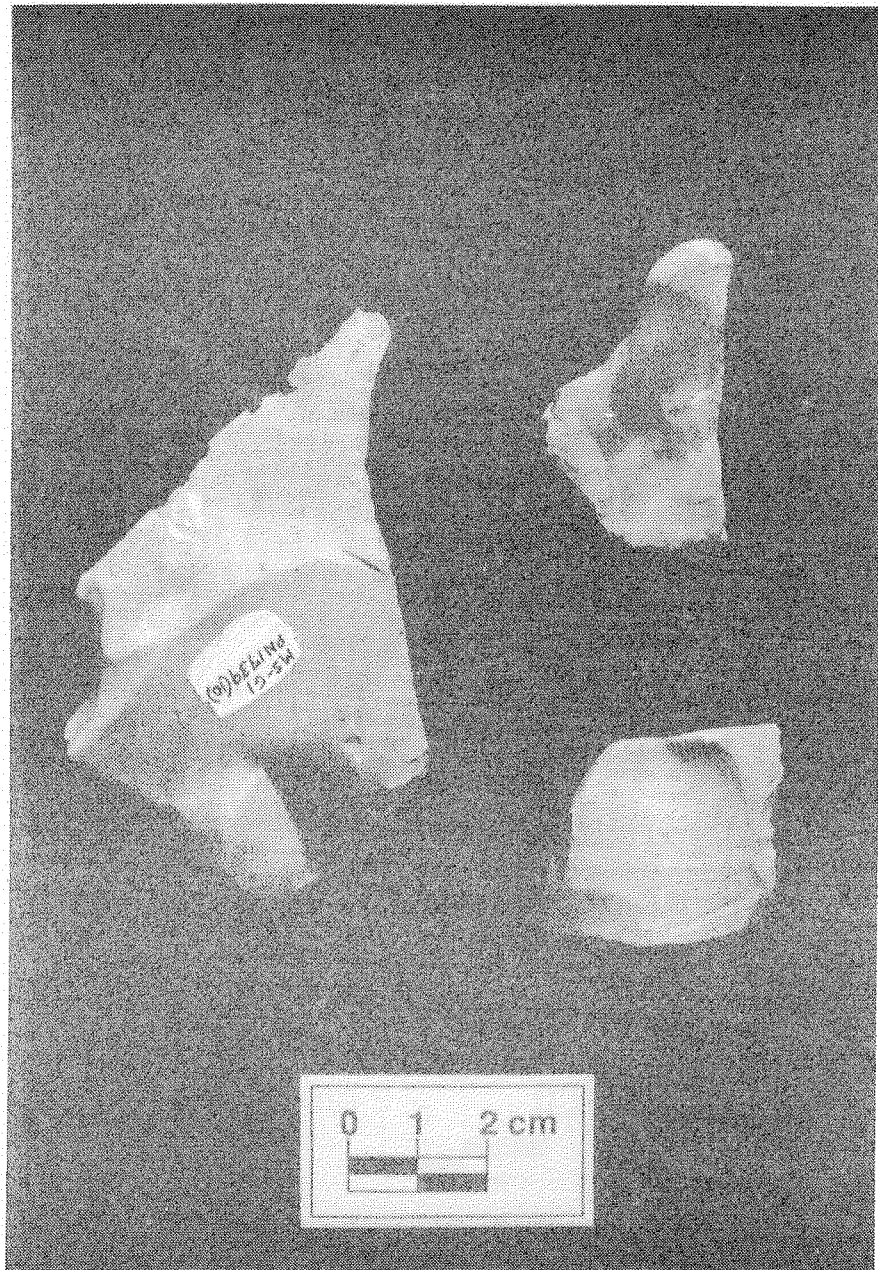


Figure 3. Utilized flakes exhibiting unifacial edge wear recovered from the Trants site (MS-G1), Montserrat.

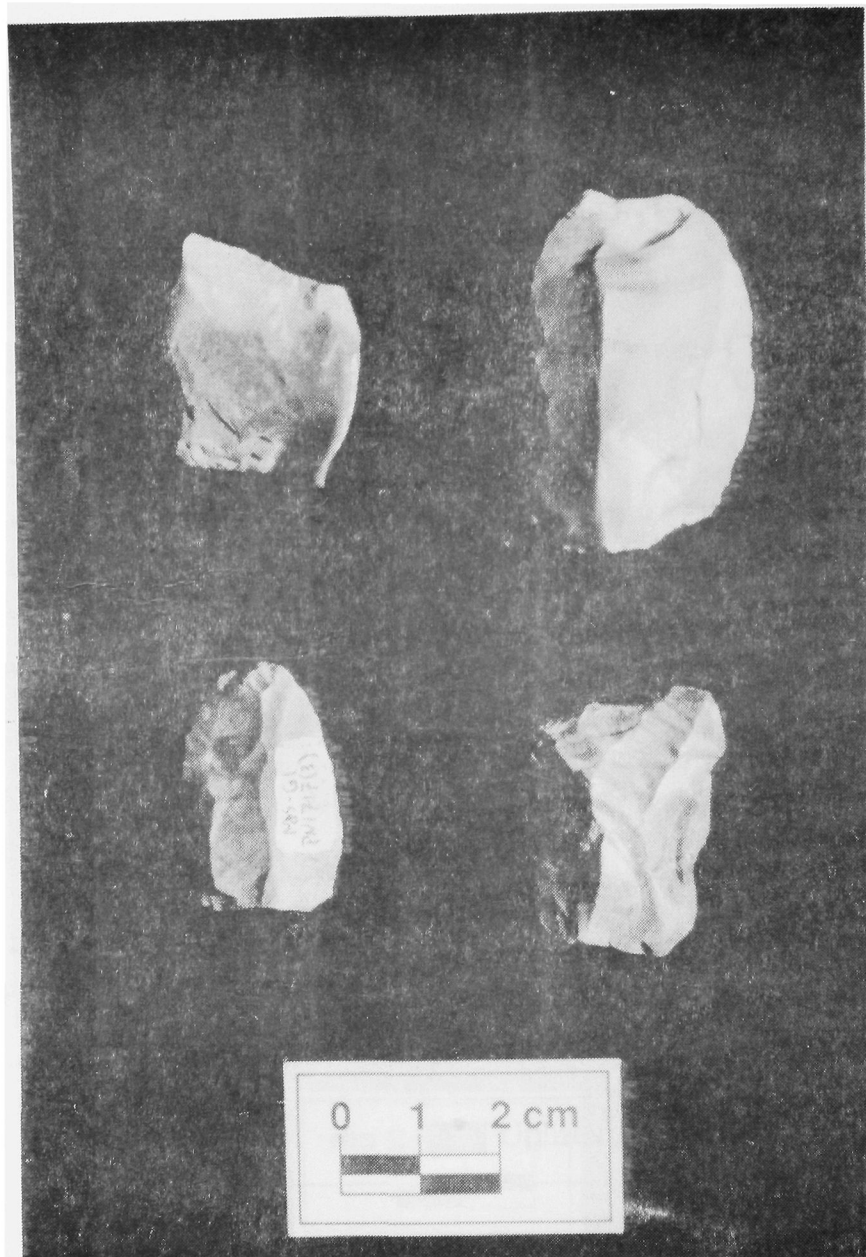


Figure 4. Utilized flakes exhibiting bifacial crushing on opposing margins recovered from the Trants site (MS-G1), Montserrat.

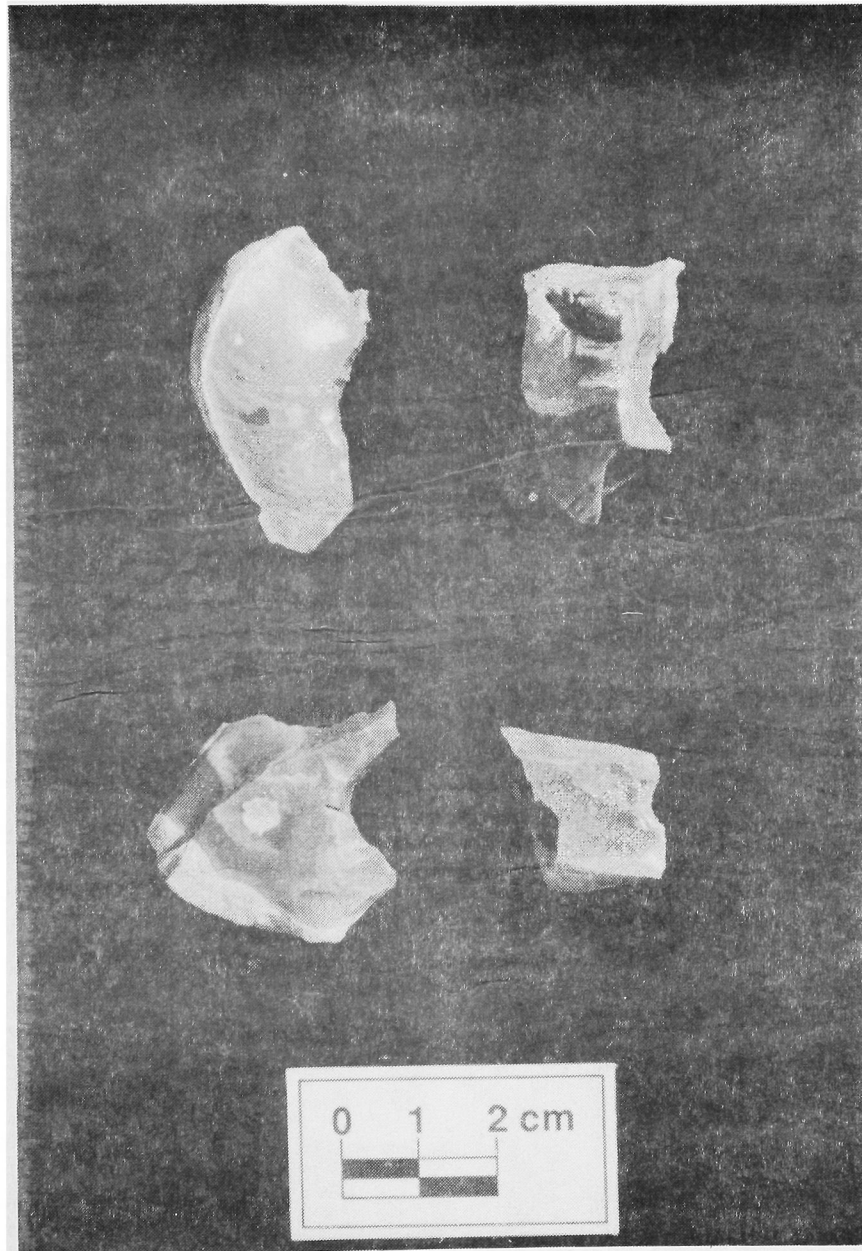


Figure 5. Utilized flakes exhibiting sharply incurvate edge wear recovered from the Trants site (MS-G1), Montserrat.

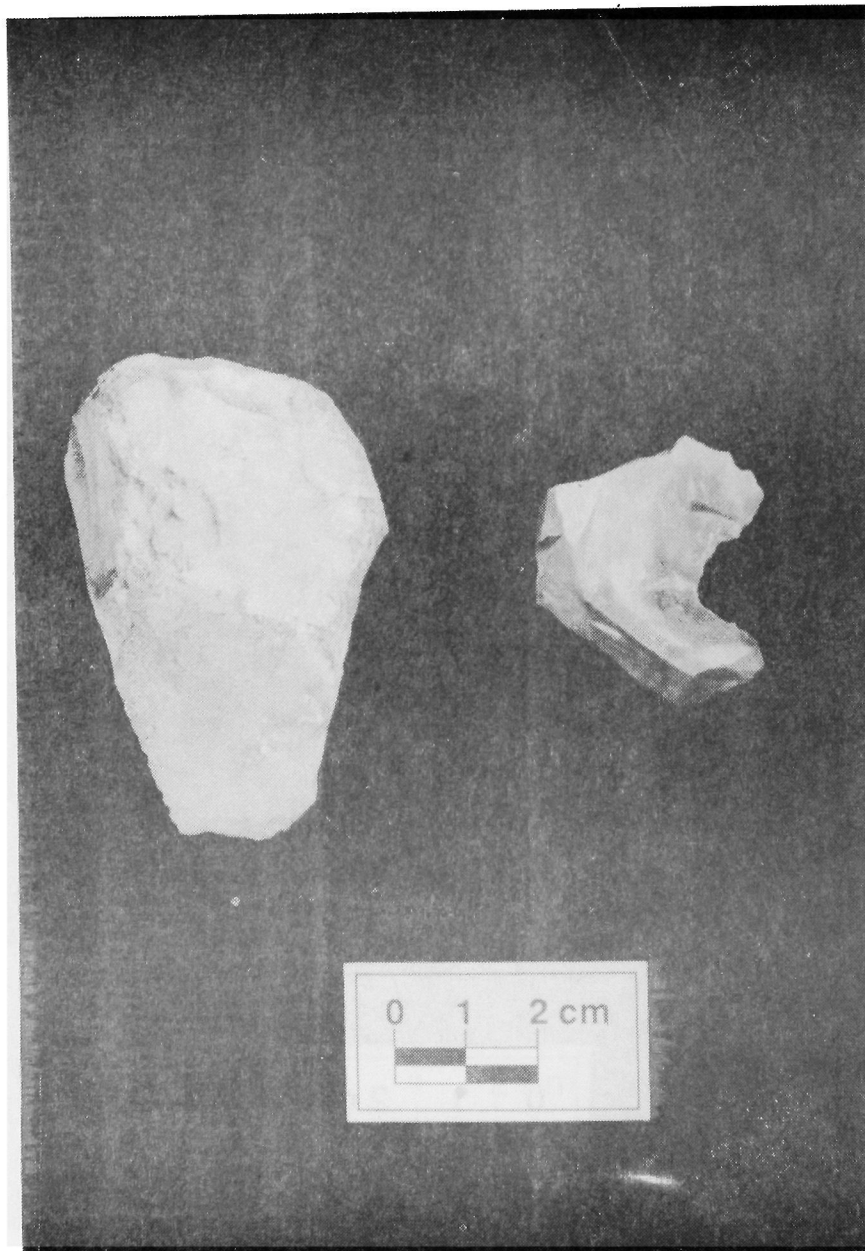


Figure 6. Utilized cores recovered from the Trants site (MS-G1), Montserrat. Left: pecking stone. Right: core exhibiting sharply incurvate lateral margin.

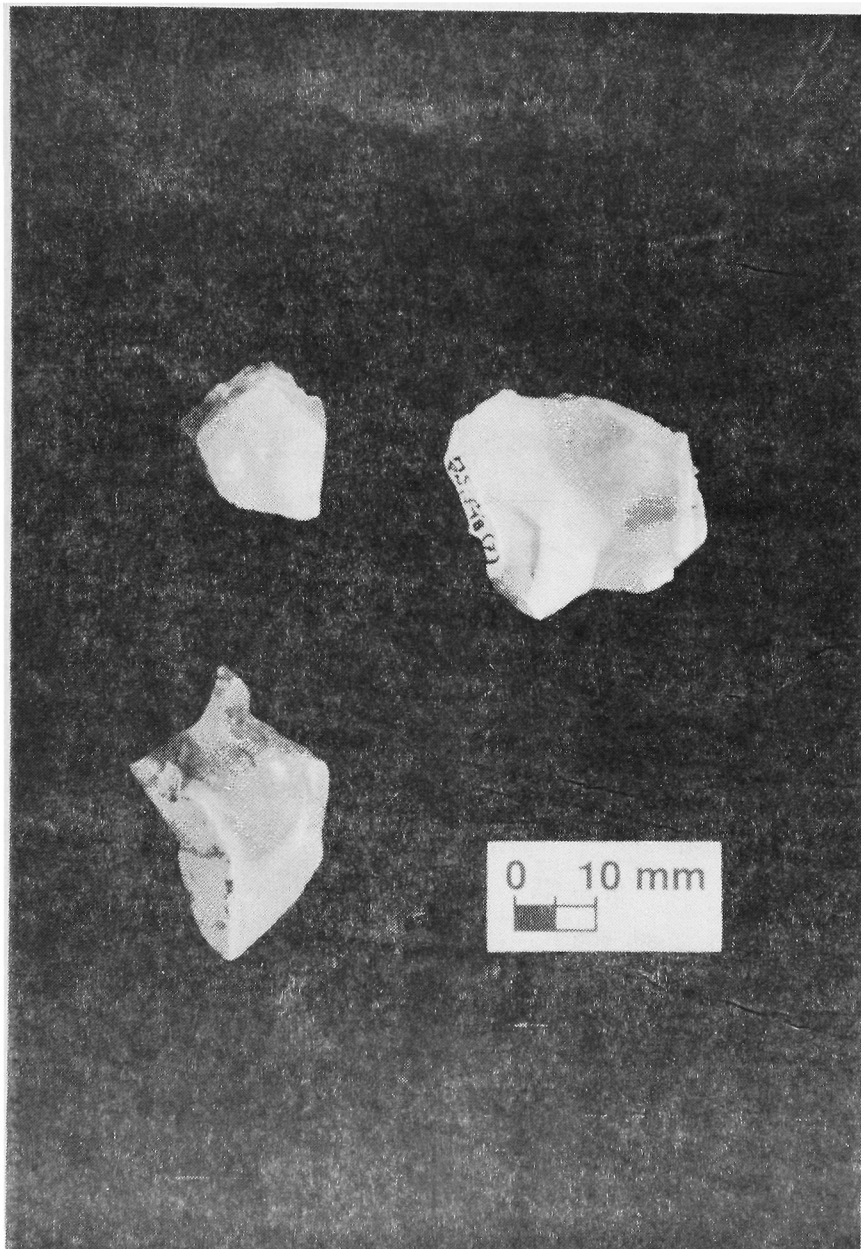


Figure 7. Modified flakes recovered from the Trants site (MS-G1), Montserrat.

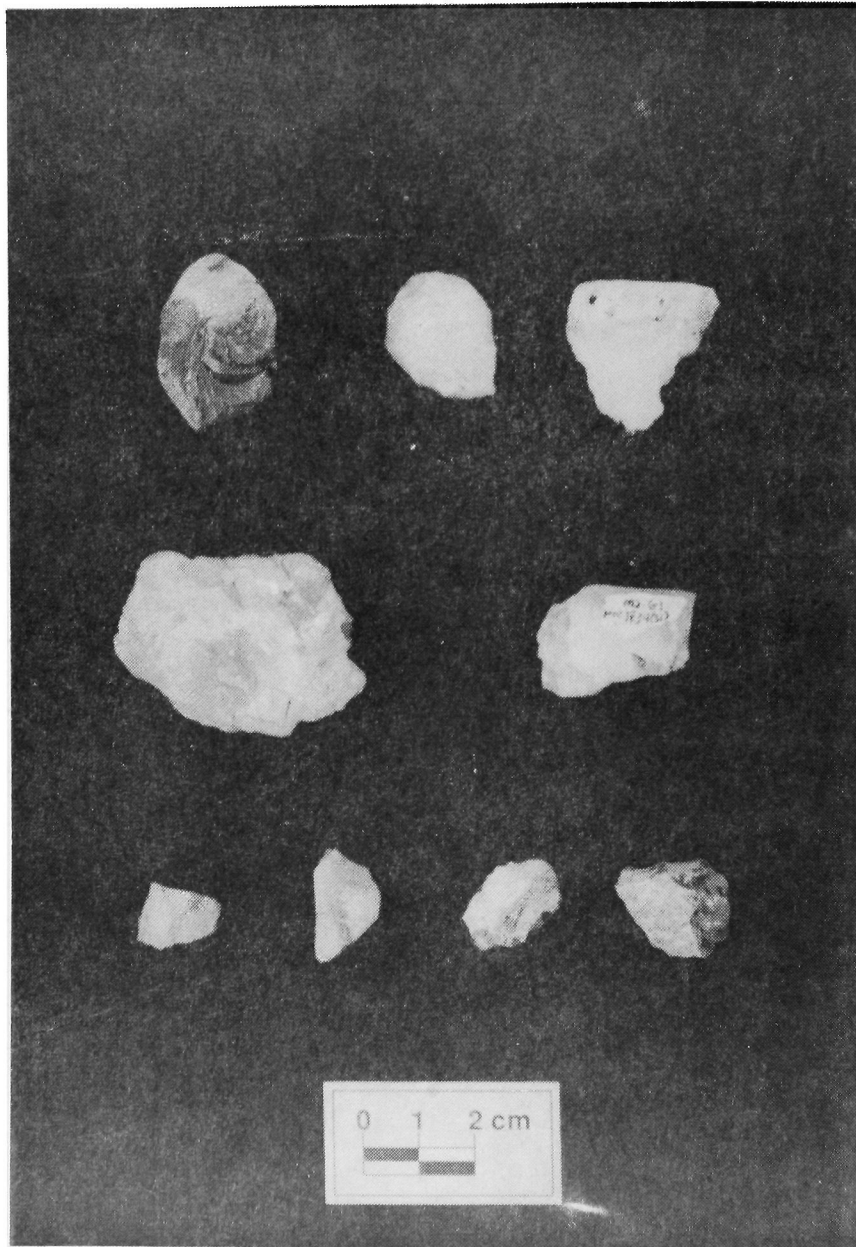


Figure 8. Unmodified or slightly modified bead material (bead preform 1) recovered from the Trants site (MS-G1), Montserrat.

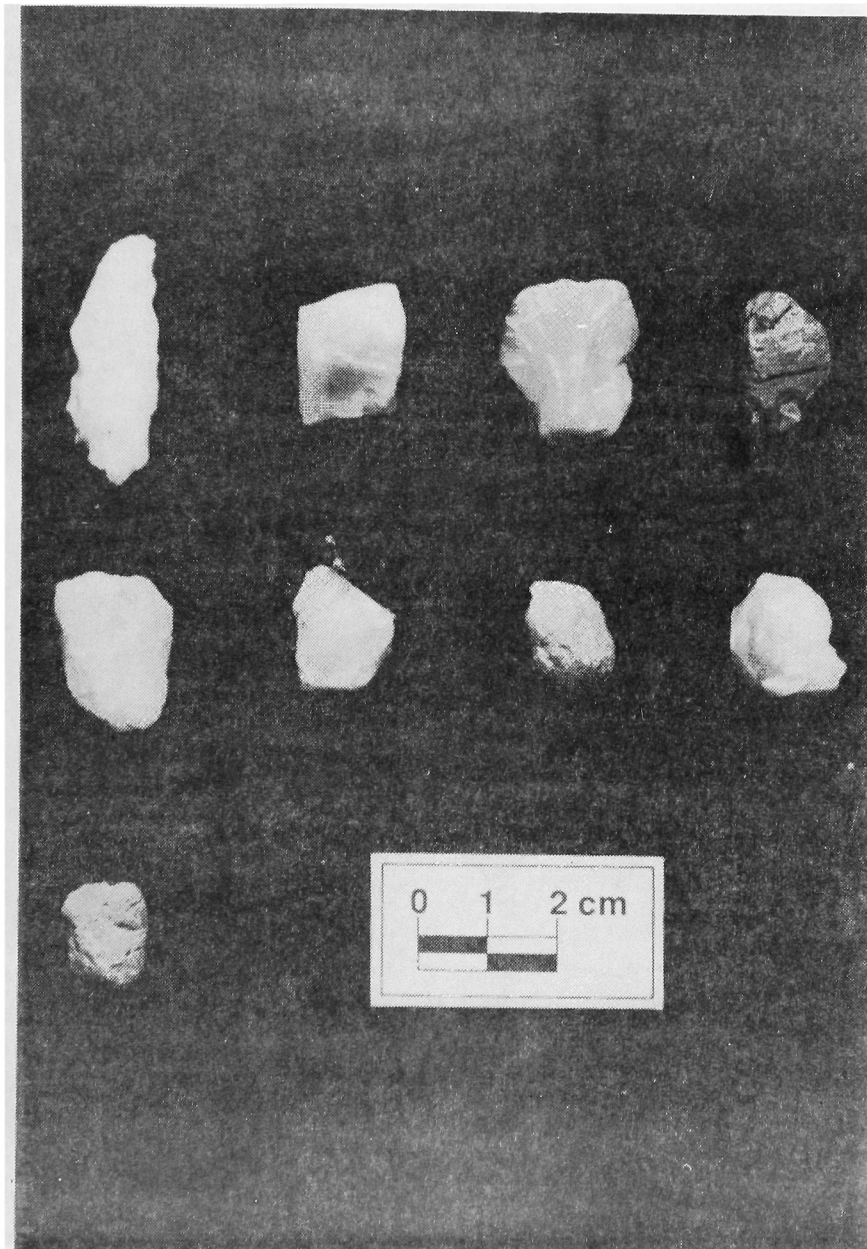


Figure 9. Minimally shaped bead material (bead preform 2) recovered from the Trants site (MS-G1), Montserrat.

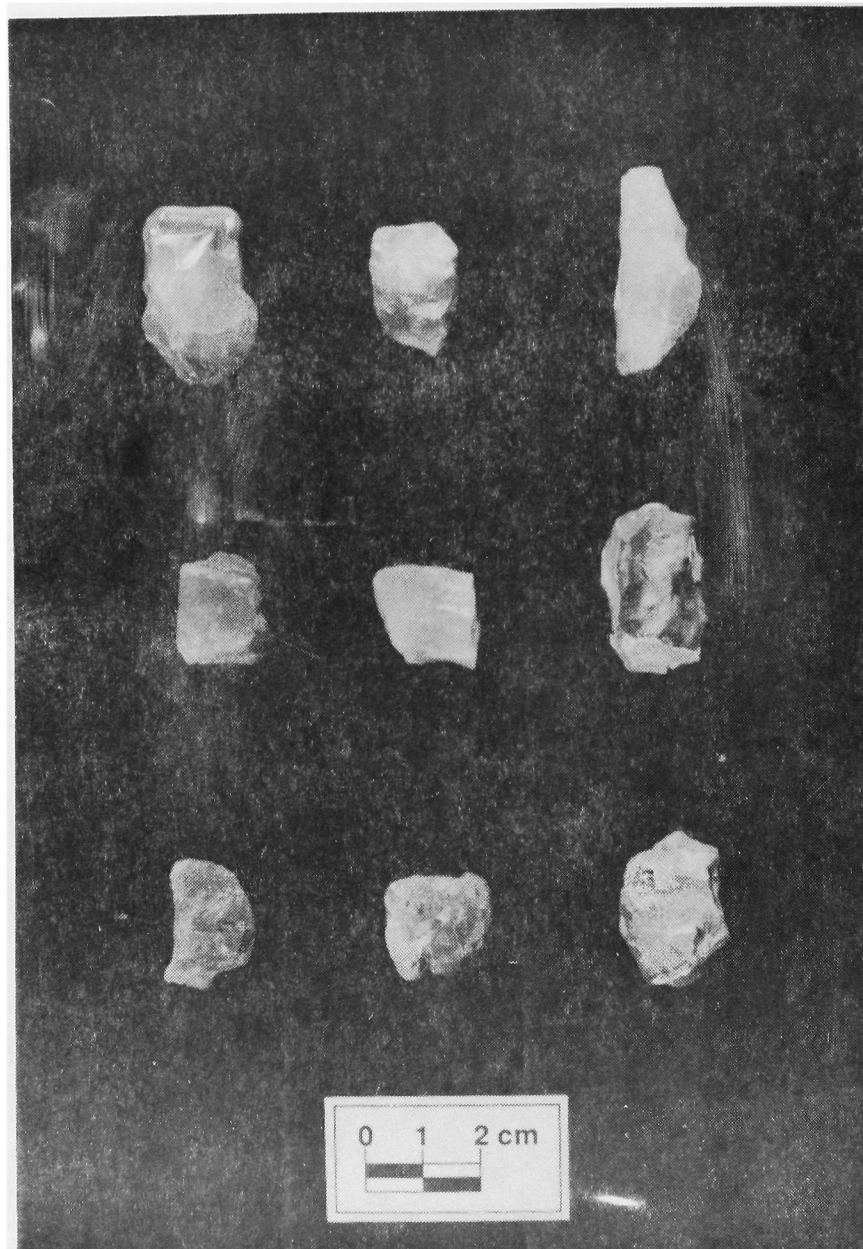


Figure 10. Well shaped bead material (bead preform 3) recovered from the Trants site (MS-G1), Montserrat.

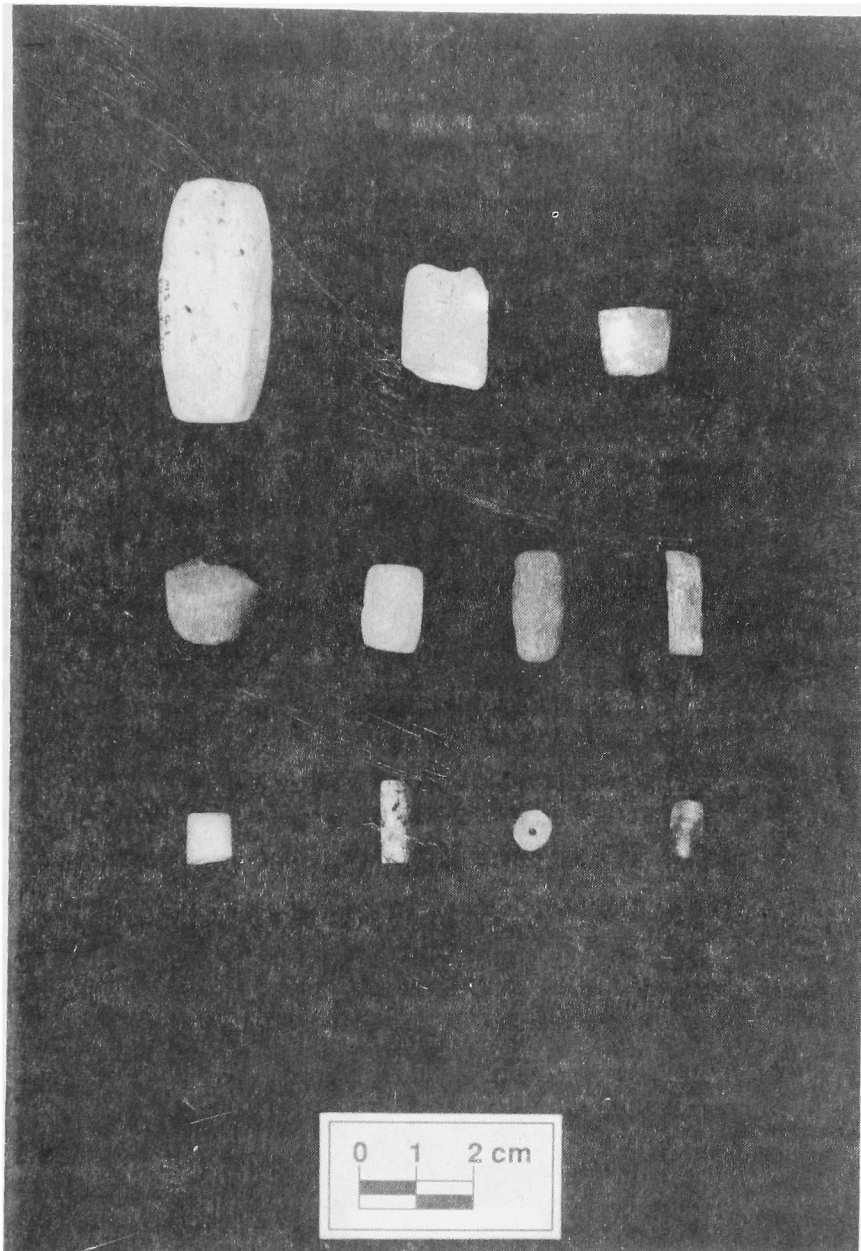


Figure 11. Fully shaped beads recovered from the Trants site (MS-G1), Montserrat.

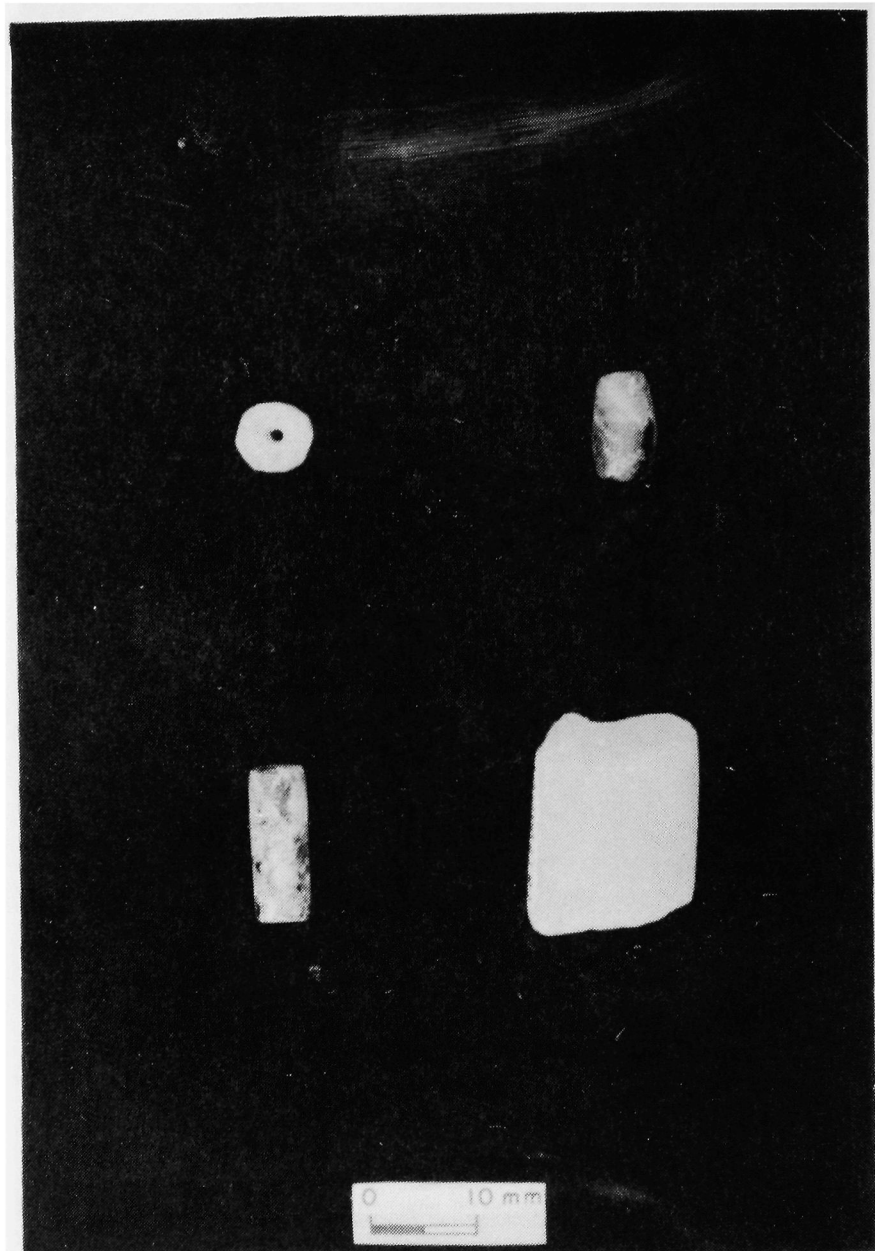


Figure 12. Major bead types represented at the Trants site (MS-G1) including discoid bead (top left), barrel shaped bead (top right), cylindrical bead (bottom left), and bead produced through minimal alteration of a natural crystal (bottom right), Montserrat.