

DAWSON CREEK: AN **EARLY** WOODLAND SITE
IN **SOUTH-CENTRAL** ONTARIO

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ABSTRACT

The Early Woodland Dawson Creek site was discovered in 1976 during an archaeological survey of the western Rice Lake basin in south-central Ontario. Limited test excavation revealed diagnostic ceramics and lithics, as well as floral and faunal remains, in association with hearth/pit features. Radiocarbon dates for these features place site occupation at about 500 years B.C. The nature and significance of the Dawson Creek site material is discussed.

SITE DESCRIPTION

The Early Woodland Dawson Creek site was discovered in 1976 during a Trent University archaeological survey along the northwest shore of Rice Lake in south-central Ontario (Fig. 1). The site lies at latitude 44°06' North and longitude 78°19' West in Concession 9 of Hamilton Township, Northumberland County. It has been assigned Borden designation BaGn-16.

As indicated in Fig. 2, the northern portion of the site consists of a three-acre cultivated field with a maximum elevation of about 650 feet a.s.l. on a gently sloping, north-south trending, sandy ground moraine ridge. The southern portion of the site is made up of the southern terminus of the north field ridge, bulldozed into a sharply sloping, 500 square meter garden, and an irregular contiguous area of comparable size recently cleared from woodlot on a low and narrow peninsula jutting southward into Rice Lake. This 150-meter long peninsula slopes from about 618 feet a.s.l. at the south end of the north field ridge to 613 feet, the present level of Rice Lake, at its tip.

The north field and the southern wooded peninsula are bounded on the west by an abandoned Rike Lake embayment, on the north by the 10th concession line of Hamilton Township, on the east by unploughed fields and woodlot, and on the south by extensive offshore marsh. An intermittent creek flows southward into the broad and shallow depression left by the former lake embayment on the west edge of the site (Fig. 2).

TEST EXCAVATION

Surface collection of the ploughed north field yielded a scattering of largely non-diagnostic lithic artifacts. Search of the cleared portion of the southern peninsula, however, produced a number of diagnostic Early Woodland ceramics and lithics. Exploratory test excavation was undertaken by the writer and two survey crew members in areas of surface ceramic concentration. The disposition of two test pits, which together exposed an area of 21 square meters is shown in Figs. 3 and 4. Each test pit was divided into one-metre square excavation units. Vertical provenience was maintained using arbitrary levels. Excavated soil was put through ¹/₄ inch mesh screens.

The southern peninsula had last been subject to major disturbance when under cultivation about 50 years ago. Artifacts were scattered through a disturbed layer of black humus, 10 to 35 cm thick, but occurred with greater frequency at the contact of this humus with an underlying orange-brown sandy subsoil. Precise horizontal and vertical provenience was maintained for all artifacts excavated from this subsoil as well as from subsoil features.

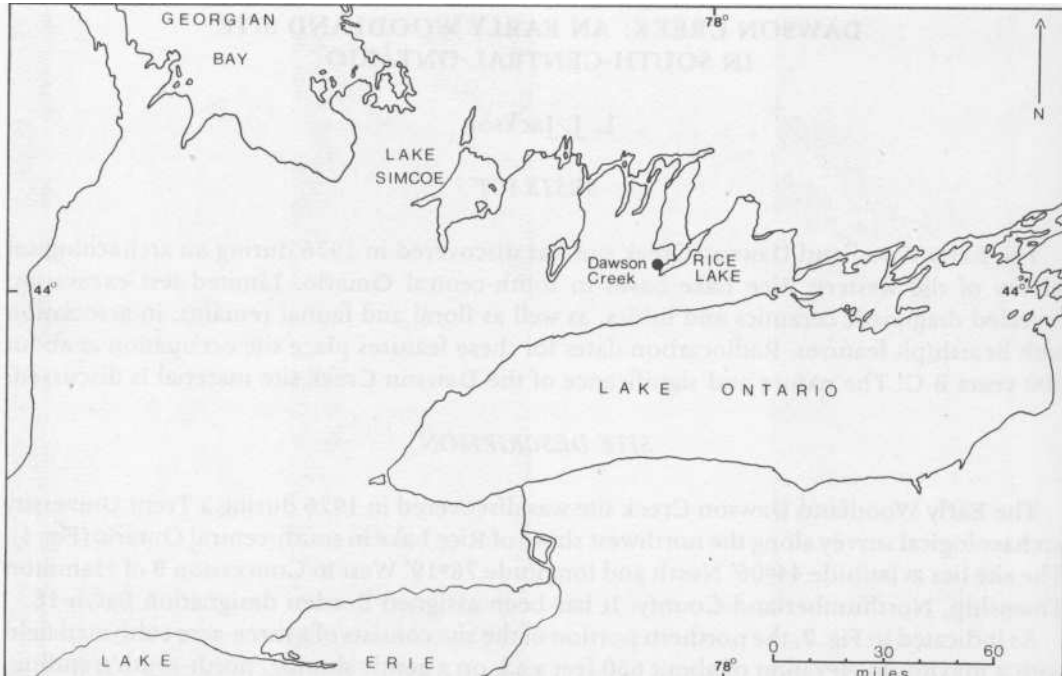


Fig. 1. Location of Dawson Creek site in southern Ontario.

A total of 211 recoveries, including 4 red ochre fragments, 13 faunal, 69 ceramic, and 125 lithic items, were recorded in 1976. The north field surface produced one faunal and 14 lithic items. Four lithic items were found on the southern peninsula surface outside of Test Pits 1 and 2. Test Pit 1, with an area of nine square meters, yielded one faunal, 6 lithic, and 9 ceramic items. Test Pit 2, with an area of 12 square meters, produced 11 faunal, 101 lithic, and 60 ceramic items, as well as 4 red ochre fragments.

SETTLEMENT FEATURES

A single post mould was recognized at the subsoil level in Test Pit 1. Eight post moulds and 2 hearth/pit features were identified at the subsoil level in Test Pit 2. Fig. 5 indicates the configuration of Test pit 2 settlement features. Post moulds 2, 3, 4, and 7 were aligned northwest to southeast and were of a diameter, depth, and basal form indicative of dwelling support posts. Post moulds 5, 6, 8, and 9, in close proximity to Features 1 and 2, were of a diameter, basal form, and inclination suggesting cooking support placements.

Feature 1, with an oval surface outline and a basin-shaped profile, was identified as a fire hearth. Fill consisted of a central area of grey ash and black soil. Peripheral areas graded from dark brown to brown sand. The shallowness of the feature and inclusion of charcoal, burnt bone, burnt chert tool fragments, and fire-cracked rock substantiate a hearth or cooking fire function (see also Table 1).

Feature 2, with an irregular oval surface outline and conoidal profile, may represent a storage pit. Fill below a large tree root disturbance consisted of an irregular area of ash and black soil with peripheral areas of dark brown sand, grey clay, and humus. Charcoal was found scattered throughout the fill as well as with ceramics and fire-cracked rock near the base of the feature. A relatively large ceramic sample of 16 sherds was recovered, suggesting that an emplaced storage vessel might have broken within the feature. Although several joining sherds

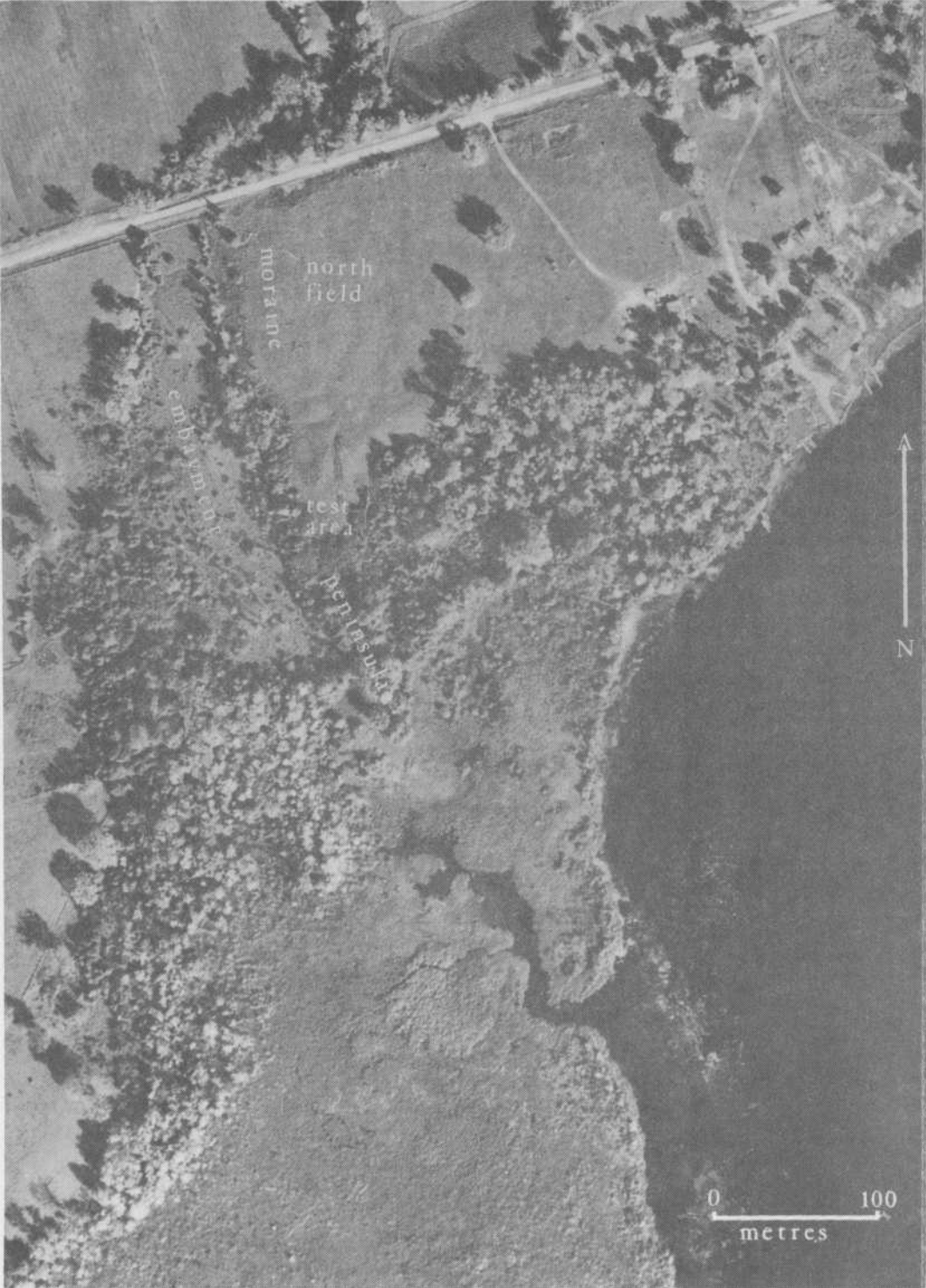


Fig. 2. Aerial view of Dawson Creek site area.

TABLE 1
RADIOCARBON DATES FROM DAWSON CREEK SITE FEATURES

Sample Provenience Dated	Material	Weight (grams)	Radiocarbon Age*		Laboratory Reference	Feature Inclusions
FEATURE 1	wood charcoal	8.2	2550 ± 90	600 B.C.	I-9862	8 chert flakes 1 chert biface 1 body sherd 4 red ochre fragments 1 calcined bone fragment 3.6 pounds of fire-cracked rock
FEATURE 2	wood charcoal	10.1	2430 ± 85	480 B.C.	I-9565	1 Vinette 1 body sherd 2 Vinette rim sherds 13 Vinette body sherds 12 pounds of fire-cracked rock
	wood charcoal	9.6	2420 ± 90	470 B.C.	I-9861	

*All dates are uncorrected determinations using the Libby half-life of 5568 years. Samples were processed by the Teledyne Isotopes Laboratory in New jersey.

were found, Feature 2 ceramics were not demonstrably from a single vessel. Sherds, charcoal, and ash from adjacent areas might well have been swept into the feature when abandoned (see also Table 1).

Measurement of feature fill volume indicated that Feature 1 had a minimum capacity of 3.9 cubic feet and Feature 2 a minimum capacity of 3.5 cubic feet. One-quarter of the fill of each feature was water-screened to recover archaeobotanical remains. Charred specimens were assumed contemporaneous with dated wood charcoal from the features. Feature 1 remains included charred nut shell fragments, unidentified charred seeds, and unidentified charred plant fragments. Feature 2 yielded one charred wood sorrel seed, unidentified charred seeds, and unidentified charred plant fragments. Wood charcoal sectioning permitted identification of deciduous trees species including maple, hickory, beech, ash, walnut, butternut, oak, ironwood, and basswood. These trees must have grown in the Dawson Creek site vicinity at the time of its occupation (R. Fecteau, personal communication.)

RADIOCARBON DATES

The results of 3 radiocarbon determinations on wood charcoal from Features 1 and 2 are listed with contextual data in Table 1. A statistical test of significance was applied to samples I-9862 and I-9861, from Features 1 and 2 respectively, to determine if a true age difference was represented by a mean difference of 130 years in raw radiocarbon ages. At the 0.05 level of confidence, no significant difference was observed. Samples I-9861 and I-9565 from Feature 2 also had no statistically significant difference in radiocarbon age. A 95% probability exists that all three radiocarbon dates refer to the same occupation event. Weighted averaging of these dates gave a mean age of 2464 ± 88 B.P. or about 514 B.C. (Long and Rippeteau 1974).

SUBSISTENCE REMAINS

Faunal recoveries were limited to 13 items of which 8 were unidentifiable calcined bone fragments. Apart from a bear canine surface-collected from the north field, all remains came from the southern peninsula test excavation area. All of these faunal items, except for 2 calcined bone fragments from Feature 1, were from disturbed contexts. Identifiable remains

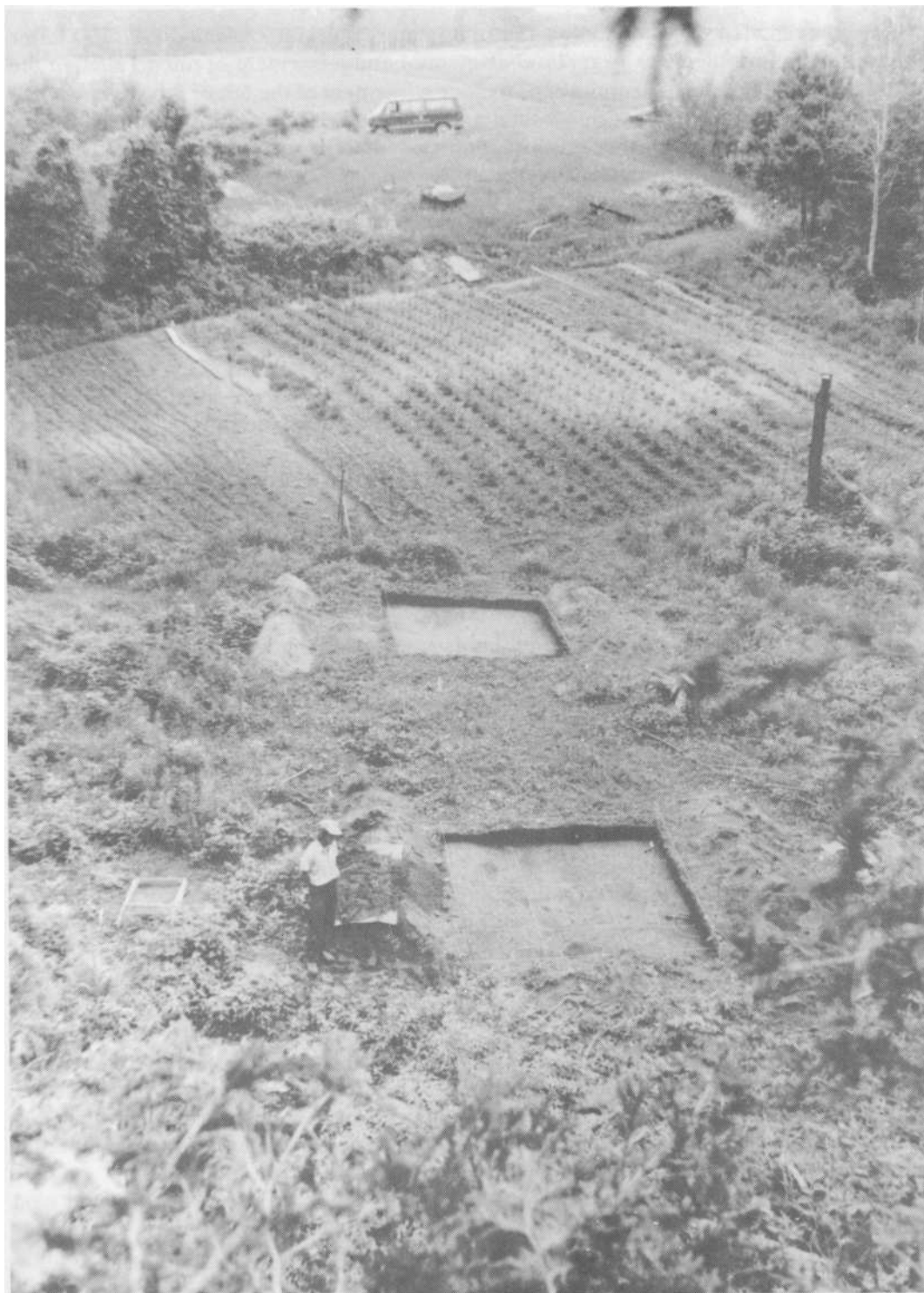


Fig. 3. Dawson Creek site excavation, view to the north.

included the right femur shaft of a juvenile or immature muskrat (*Ondatra zibethicus*), a lower left canine of a juvenile black bear (*Ursus americanus*) and a fragment of mussel shell of the family *Unionidae*. Tentative identifications include a fragment of the 5th or 6th sternebra of a young individual of the family *Cervidae* and a fragment of what appears to be the left lateral distal condyle of the humerus, or else a distal metapodial fragment, of an individual of the family *Cervidae* (S. Cumbaa, personal communication).

Although the nature, size, and context of the Dawson Creek faunal sample does not permit reliable inferences of seasonality, the few identified remains support a warm, as opposed to cold, season of occupation. The juvenile black bear canine may reflect a spring or summer use of the site while the juvenile or immature muskrat bone suggests a summer or fall occupation. One of the bones assigned to the *Cervidae* is comparable to that from a 10 month old white-tail deer and could denote an early spring occupation.

Large land mammals such as black bear and species of *Cervidae*, as well as semi-aquatic small mammals such as muskrat, seem to have been hunted. The presence of shellfish, charred nut shells, and charred seeds also suggests reliance on a diversity of animal and plant foods.

CERAMICS

Surface collection and test excavation of the newly cleared area of the site yielded 69 sherds of various ceramic vessels. Laboratory matching of these sherds produced a final count of 57 ceramic items - including 7 rims, 2 neck sherds, 47 body sherds, and one pipe fragment. One rim sherd, one neck sherd, and 2 body sherds conform to the classic Vinette 1 ceramic type description. One neck sherd and 3 body sherds conform to the type description for Point Peninsula Corded ware of the Vinette 2 ceramic series. Five rim sherds and 27 body sherds were assigned to a generalized "Vinette" ceramic category subsuming characteristics of both Vinette 1 and Vinette 2 ceramic series but not conforming to any established type description. One rim and 15 body sherds could not be assigned to ceramic type because sufficient distinguishing marks were lacking (Ritchie and MacNeish 1949).

Vinette 1 and Vinette sherds were directly associated with settlement features recognized during test excavation and seem to be representative of a single Early Woodland period occupation. Most of the site ceramic sample was found in and around Feature 2 in the south half of Test Pit 2. Radiocarbon dates for Feature 2 support an age close to 500 B.C. for both Vinette 1 and Vinette ceramics (Table 1). A Vinette 1 body sherd was found at the base of this feature which also contained 11 Vinette body sherds and 2 Vinette rim sherds in the fill. There is, as well, some evidence to suggest that Vinette 1 and Vinette sherds found on the surface of Test Pit 1 were transported from Feature 2 during the recent removal of a large tree stump. Numerous Vinette sherds were recovered adjacent to Feature 2 in a reddish-brown subsoil anomaly (Fig. 5) which may be the location in which a broken vessel disintegrated. A Vinette 1 body sherd was also found in post mould 3 less than 2 meters from Feature 2. In view of the paucity of sherds from Feature 1, it is felt that most of the ceramics from Test Pit 2 are contemporaneous with radiocarbon dated Feature 2 and are representative of a single Early Woodland period occupation.

Only 4 Dawson Creek site sherds conform precisely to the classic New York Vinette 1 type description. Ritchie and MacNeish (1949: 100) characterize Vinette 1 vessels as conoidal-based with elongated bodies, straight necks, straight and slightly outslowing rims, and gradual thinning towards rounded or almost pointed lips. Decoration is absent. Surface treatment consists of exterior cord-malleation in various directions and horizontal cord-malleation of interior surfaces. Sherds are coarse in texture and often porous with frequent coil breaks.

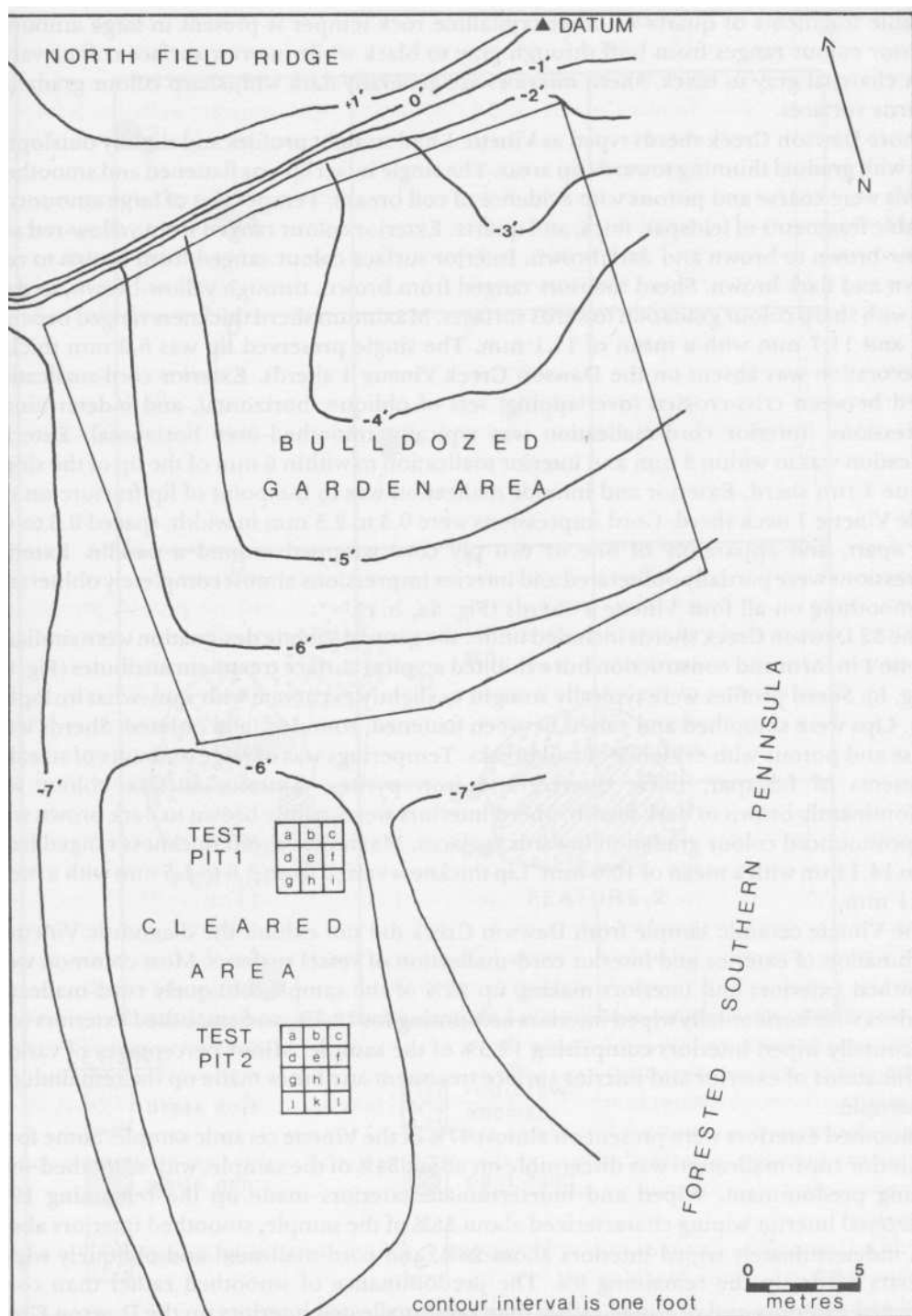


Fig. 4. Test excavation area and contours, Dawson Creek site.

Sizeable fragments of quartz or other crystalline rock temper is present in large amounts. Exterior colour ranges from buff through gray to black while interior surface colour varies from charcoal gray to black. Sherd interiors are generally dark with sharp colour gradation towards surfaces.

Those Dawson Creek sherds typed as Vinette 1 had straight profiles and slightly outslipping rims with gradual thinning towards lip areas. The single intact lip was flattened and smoothed. Sherds were coarse and porous with evidence of coil breaks. Temper was of large amounts of sizeable fragments of feldspar, mica, and quartz. Exterior colour ranged from yellow-red and yellow-brown to brown and dark brown. Interior surface colour ranged from brown to red-brown and dark brown. Sherd interiors ranged from brown, through yellow-brown, to dark gray with sharp colour gradation towards surfaces. Maximum sherd thickness ranged between 10.5 and 11.7 mm with a mean of 11.1 mm. The single preserved lip was 6.0 mm thick.

Decoration was absent on the Dawson Creek Vinette 1 sherds. Exterior cord-malleation varied between criss-crossed (overlapping) sets of oblique, horizontal, and indeterminate impressions. Interior cord-malleation was typically smoothed-over horizontal. Exterior malleation was to within 3 mm and interior malleation to within 6 mm of the lip of the single Vinette 1 rim sherd. Exterior and interior malleation was to the point of lip fracture on the single Vinette 1 neck sherd. Cord impressions were 0.5 to 2.5 mm in width, spaced 0.5 to 4.0 mm apart, and apparently of one or two ply cord wrapped around a paddle. Exterior impressions were partially obliterated and interior impressions almost completely obliterated by smoothing on all four Vinette 1 sherds (Fig. 6a, b, c).

The 32 Dawson Creek sherds included under the general Vinette designation were similar to Vinette 1 in form and construction but exhibited atypical surface treatment attributes (Fig. 6d, e, f, g, h). Sherd profiles were typically straight to slightly excurvate with somewhat insloping rims. Lips were smoothed and varied between flattened, rounded, and pointed. Sherds were coarse and porous with evidence of coil breaks. Tempering was of large amounts of sizeable fragments of feldspar, mica, quartz, and iron pyrites. Exterior surface colour was predominantly brown to dark brown. Sherd interiors were mainly brown to dark brown with less pronounced colour gradation towards surfaces. Maximum sherd thickness ranged from 6.9 to 14.1 mm with a mean of 10.9 mm. Lip thickness varied from 3.6 to 4.5 mm with a mean of 4.1 mm.

The Vinette ceramic sample from Dawson Creek did not exhibit the diagnostic Vinette 1 combination of exterior and interior cord-malleation of vessel surfaces. Most common were smoothed exteriors and interiors making up 22% of the sample, obliquely cord-malleated exteriors with horizontally wiped interiors accounting for 12.5%, and smoothed exteriors with horizontally wiped interiors comprising 12.5% of the sample. Minor percentages of various combinations of exterior and interior surface treatment attributes made up the remainder of the sample.

Smoothed exteriors were present on almost 47% of the Vinette ceramic sample. Some form of exterior cord-malleation was discernible on about 34% of the sample, with smoothed-over cording predominant. Wiped and indeterminate exteriors made up the remaining 19%. Horizontal interior wiping characterized about 38% of the sample, smoothed interiors about 25%, indeterminately wiped interiors about 28%, and cord-malleated and obliquely wiped interiors made up the remaining 9%. The predominance of smoothed rather than cord-malleated exteriors and of wiped rather than cord-malleated interiors on the Dawson Creek Vinette sample are significant departures from classic Vinette 1. Horizontal interior wiping, present on a majority of the Vinette sherds, is usually considered a diagnostic attribute of Vinette 2 series ceramics.

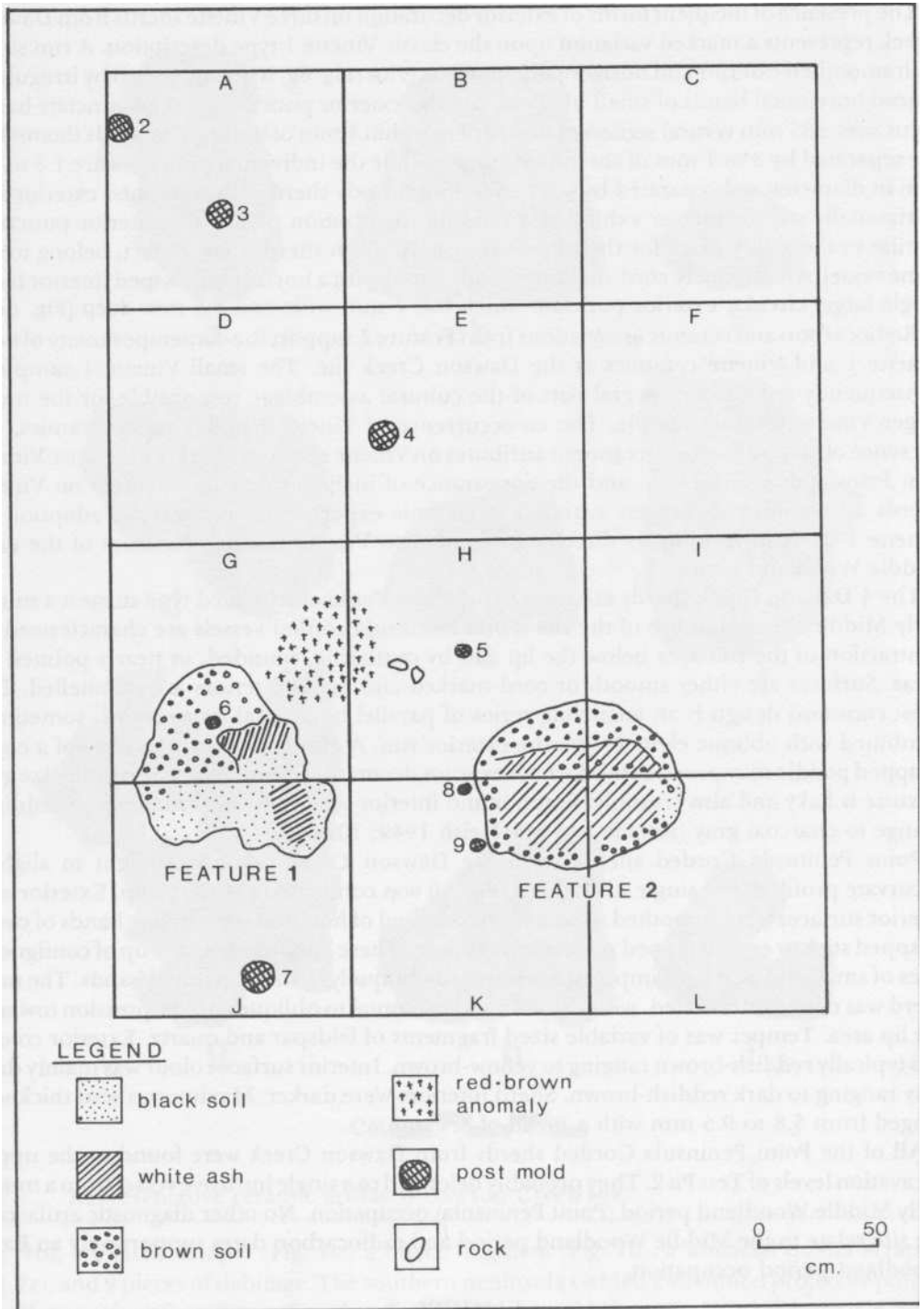


Fig. 5. Test pit 2 settlement features, Dawson Creek site.

The presence of incipient forms of exterior decoration on three Vinette sherds from Dawson Creek represents a marked variation upon the classic Vinette 1 type description. A rim sherd with smoothed exterior and horizontally wiped interior (Fig. 6g) is distinguished by irregularly spaced horizontal bands of small, shallow, circular exterior punctations. The punctate bands occur over a 35 mm vertical section of the sherd to within 8 mm of the lip. The bands themselves are separated by 3 to 4 mm of smoothed surface while the individual punctates are 1.5 to 2.5 mm in diameter and separated by 0.5 to 5.0 mm. A body sherd with smoothed exterior and horizontally wiped interior exhibited a random distribution of shallow exterior punctates similar to those described for the Vinette rim sherd. Both sherds may, in fact, belong to the same vessel. An obliquely cord-malleated body sherd with a horizontally wiped interior had a single large, circular exterior punctate which was 7 mm wide and 3.5 mm deep (Fig. 6e).

Radiocarbon and ceramic associations from Feature 2 support the contemporaneity of both Vinette 1 and Vinette ceramics at the Dawson Creek site. The small Vinette 1 sample is consequently seen as an integral part of the cultural assemblage responsible for the much larger Vinette ceramic sample. The co-occurrence of Vinette 1 and Vinette ceramics, the presence of atypical surface treatment attributes on Vinette sherds which are otherwise Vinette 1 in form and construction, and the appearance of incipient decorative forms on Vinette sherds all combine to suggest a period of ceramic experimentation and the adoption by Vinette 1 users of techniques directly antecedent to Vinette 2 series ceramics of the early Middle Woodland period.

The 4 Dawson Creek sherds assigned to the Point Peninsula Corded type suggest a minor early Middle Woodland use of the site. Point Peninsula corded vessels are characterized by contraction of the rim area below the lip and by outflaring, rounded, or nearly pointed lip areas. Surfaces are either smooth or cord-marked and vessel interiors are channelled. The most common design is an encircling series of parallel horizontal impressions, sometimes combined with oblique elements on the exterior rim. A corded stick or the edge of a cord-wrapped paddle may produce this form of exterior decoration. Temper is of medium-size grit. Texture is flaky and also crumbly. Exterior and interior surface colours range from reddish-orange to charcoal gray (Ritchie and MacNeish 1949: 102).

Point Peninsula Corded sherds from the Dawson Creek site had straight to slightly excurvate profiles. The single neck sherd (Fig. 6i) was contracted below the lip. Exterior and interior surfaces were smoothed. Decoration consisted of horizontal encircling bands of cord-wrapped stick or cord-wrapped paddle impressions. These bands were made up of contiguous lines of small and oval cord impressions oriented obliquely to the horizontal bands. The neck sherd was entirely decorated, with a shift from horizontal to oblique cord impression towards the lip area. Temper was of variable sized fragments of feldspar and quartz. Exterior colour was typically reddish-brown ranging to yellow-brown. Interior surface colour was mainly dark gray ranging to dark reddish-brown. Sherd interiors were darker. Maximum sherd thickness ranged from 5.8 to 9.5 mm with a mean of 8.4 mm.

All of the Point Peninsula Corded sherds from Dawson Creek were found in the upper excavation levels of Test Pit 2. They probably belonged to a single intrusive vessel from a minor early Middle Woodland period (Point Peninsula) occupation. No other diagnostic artifacts at the site relate to the Middle Woodland period and radiocarbon dates support only an Early Woodland period occupation.

LITHICS

A total of 125 lithic items, including 14 from the surface-collected north field and 111 from the test-excavated southern peninsula was recovered from the Dawson Creek site in 1976. Among the north field recoveries were a projectile point mid-section (Fig. 7a), an ovoid biface

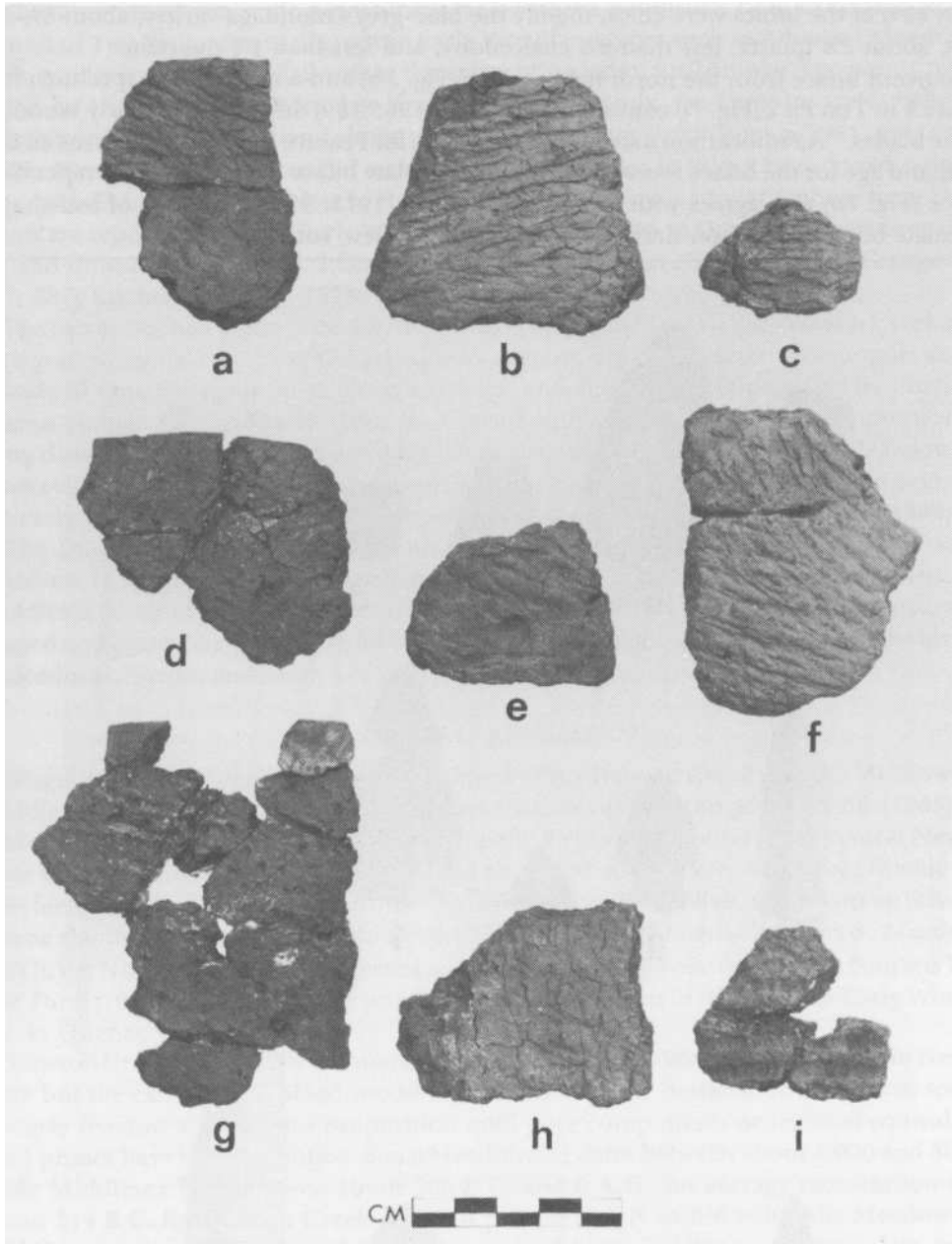


Fig. 6. Representative ceramic artifacts, Dawson Creek site.

(Fig. 7b), a bifacial scraper (Fig. 7c), a biface fragment (Fig. 7d), a unifacial quartz scraper (Fig. 7e), and 9 pieces of debitage. The southern peninsula yielded 2 stemmed projectile points (Fig. 7f, g), a projectile point tip (Fig. 7h), a fire-shattered ovoid biface (Fig. 7i), a biface tip (Fig. 7j), a drill tip (Fig. 7k), two thumbnail side/end scrapers (Fig. 7l, m), two flakes of exotic chalcedony (Fig. 7n - one only), a lanceolate biface (Fig. 7o), and 101 pieces of debitage including 7 cores, 2 core fragments, 7 bifacial retouch flakes, 18 retouched flakes, and 67 unretouched flakes.

About 89% of the lithics were chert, mainly the blue-grey Onondaga variety, about 6% were schist, about 2% quartz, less than 2% chalcedony, and less than 1% quartzite.

The ovoid biface from the north field surface (Fig. 7b) and a comparable specimen from Feature 1 in Test Pit 2 (Fig. 7i) conform to Ritchie's (1965:189) description of Early Woodland "cache blades." A radiocarbon date of about 600 B.C. for Feature 1 (Table 1) confirms an Early Woodland age for the biface found in its fill. A lanceolate biface from the southern peninsula surface (Fig. 7o) also agrees with Ritchie and Funk's (1973: 97) description of leaf-shaped, lanceolate bifaces found on Early Woodland sites in New York State.

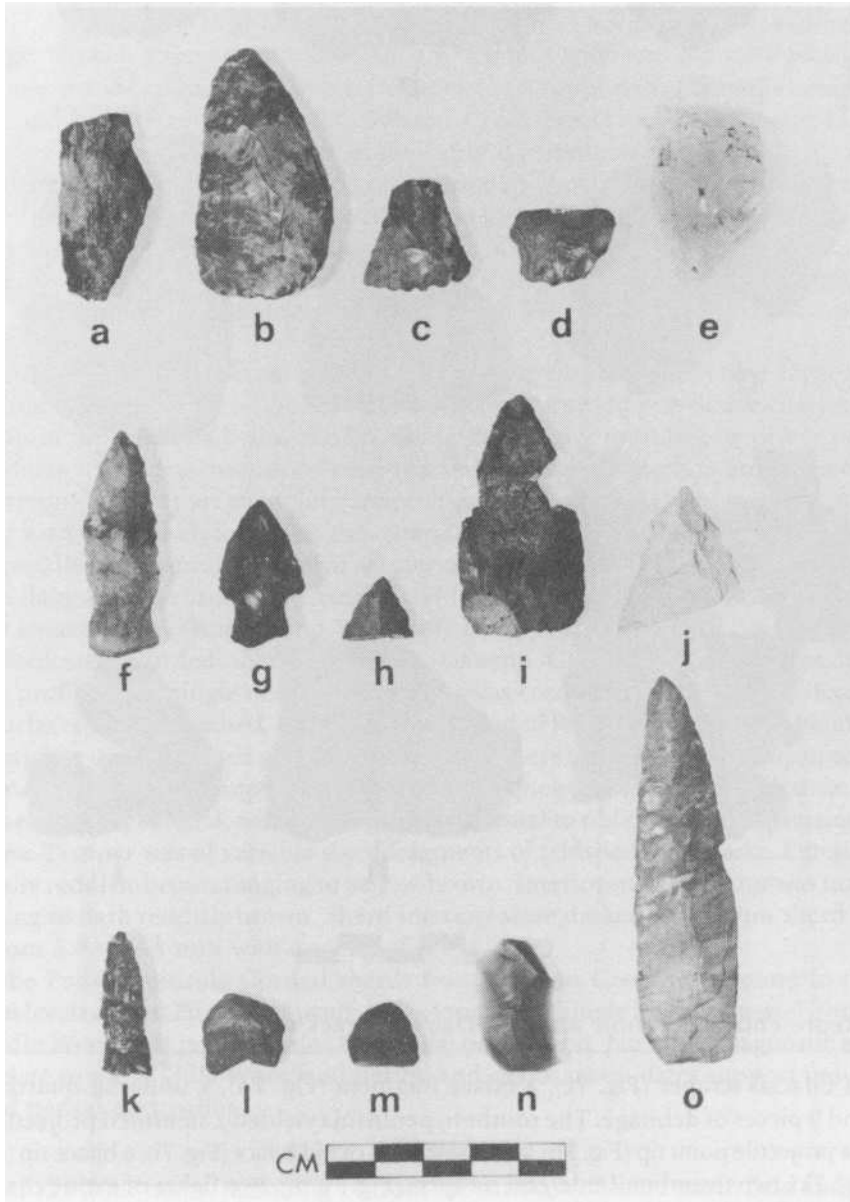


Fig. 7. Representative lithic artifacts, Dawson Creek site.

The 2 stemmed projectile points from the southern peninsula, both excavated from the subsoil of Test Pit 2, are not diagnostic Early Woodland types such as Adena or Meadowood. Both specimens, however, fall within the range of variation for Lamoka type points typically found on Late Archaic sites in New York State. Significantly, the Lamoka type is believed to persist until Middle Woodland times in central New York State (Ritchie 1971: 29). Granger (1978: 295-97) has also remarked technological similarities in lithics from Meadowood and Late Archaic Lamoka phase sites in New York. Stemmed points similar to those from Dawson Creek are reported from the Early Woodland sites of Batiscan in Quebec (Levesque et al 1964: 53) and from Riverhaven No. 2, Scaccia, and Sinking Ponds in New York State (Granger 1978: 117, 387; Ritchie and Funk 1973: 111).

The two retouched flakes of dark brown chalcedony from Test Pit 2 at Dawson Creek are of a high grade material atypical of Ontario quarry sources. Visual characteristics support an origin outside of Ontario. Knife River, North Dakota, and Flint Ridge, Ohio, quarries provide the nearest similar chalcedony varieties (L. Clayton and C. Wray, personal communications). Long distance trade of exotic materials such as chalcedony is not surprising at Dawson Creek since evidence of extensive trade networks had been documented at southern Ontario sites of the early Middle Woodland period, especially in the Rice Lake area (Johnston 1968).

The Dawson Creek site lithic assemblage, although small, has definite Early Woodland affinities. It seems significant that it may incorporate several so-called index traits of the Middlesex phase of Early Woodland development in New York State. These traits include leaf-shaped and lanceolate bifaces, ovoid bifaces, stemmed points, and the use of Flint Ridge, Ohio chalcedony (Ritchie and Funk 1973: 97).

CULTURAL AFFILIATION

Diagnostic ceramics and lithics suggest affinity of the Dawson Creek site with Meadowood or Middlesex phase sites of the Early Woodland tradition as recognized by Ritchie (1965). Funk (1976: 277) notes that Meadowood is principally a culture of western and central New York State whereas Middlesex is largely confined to central and eastern New York. Ritchie (1965: 200) feels that Middlesex, known almost exclusively from burial sites, represents an infusion of Adena splinter groups from the Ohio Valley. The presence of Adena-like traits on Meadowood sites in the Northeast certainly raises the possibility of Meadowood-Middlesex contacts. Ritchie and Funk (1973: 115-16) note the possibility of such contacts at the Batiscan Early Woodland site in Quebec.

Dawson Creek is obviously comparable to sites of the Early Woodland tradition in New York State but the extension of Meadowood or Middlesex phase designations to sites in southern Ontario remains a hazardous proposition until pure components or regional equivalents of both phases have been identified. Since Meadowood dates between about 1,000 and 500 B.C. while Middlesex falls between about 500 B.C. and 0 A.D., an average radiocarbon date of about 514 B.C. for Dawson Creek does not place it clearly within either the Meadowood or Middlesex periods. The possibility exists that the site might represent a late regional expression of Meadowood during a period in which initial Middlesex influences were being felt (Ritchie 1965; Ritchie and Funk 1973).

SUBSISTENCE AND SETTLEMENT PATTERNS

Subsistence and settlement data for the Dawson Creek site are presently too meagre for interpretive purposes. Some general observations are possible, however, based on site size and situation. If the settled area of Dawson Creek was confined to the low-lying southern

peninsula, it must have been less than an acre in size. Settlement remains found at the base of the elevated ground moraine ridge, together with evidence of a deciduous forest cover, suggest that, as today, the small site area was well-concealed.

The size and physiographic situation of Meadowood phase sites in New York provides valuable comparative data. The Sinking Ponds site, a Meadowood camp in Erie County, covers about one-half acre on a point of land projecting into the marsh which surrounds Sinking Pond. A Meadowood component at the Riverhaven No. 2 site, on the east shore of Grand Island in the Niagara River, is probably less than one-quarter acre in size. Most of the site lies along a narrow, crescent-shaped terrace a few feet above the level of the river. The Meadowood component at the Brewerton site in Onondaga county covers less than one-quarter acre. A small Meadowood component at the Nahrwold No. 2 site in eastern New York lies on a low rise along a fluvial terrace bordering the flood plain of Schoharie Creek. The Meadowood component of the Dennis site on the Hudson River near Albany consists of several small camps scattered along the river bank. The Scaccia site in central New York covers about one acre on the end of a small tongue of land bordering the Genesee River floodplain and is considered a major Meadowood campsite (Ritchie 1965: 189; Ritchie and Funk 1973: 346-48).

The typically small size of Meadowood sites in New York State may attest to their habitation by small bands with periodic aggregations at larger sites. Granger (1978: 295) remarks that analysis of procurement activity on Meadowood sites reveals definite seasonal distinctions in exploitation and also that different resources were exploited in close juxtaposition. Ritchie and Funk (1973: 348) propose a semi-sedentary subsistence and settlement pattern for Meadowood phase peoples from evidence of hunting, fishing, and the gathering of wild vegetable foods. A marked preference for locations near major waterways in all seasons and for specialized habitats on valley edges near small tributaries in fall and winter implies well-defined and seasonally-oriented subsistence and settlement activities.

Analysis of the location of Meadowood habitation sites showed that there was a close association of smaller sites with shallow lakes or fossil lakes, now marshes, where weir-net and leister fishing were quite profitable. In contrast, the larger sites were located on larger streams or deep lakes and usually associated with areas of high mast production... these areas were spatially very close to each other...(Granger 1978: 295).

The shallow and marshy Rice Lake waters today bounding the peninsular Dawson Creek site probably hosted extensive wild rice beds and associated fauna in the Early Woodland period (Jackson 1977). Extant archaeological evidence from Dawson Creek, although meagre, suggests sufficient similarity with Meadowood phase sites that it is a reasonable supposition that the inhabitants partook of a similarly semi-sedentary settlement and subsistence pattern. A speculative interpretation of Dawson Creek suggests that it was a small spring or summer camp, perhaps with a primary fishing orientation, exploiting various animal and plant foods in a highly productive natural setting.

REGIONAL COMPARISONS

While diagnostic Vinette 1 is confined largely to New York and adjacent portions of Ontario and Quebec, regional ceramic equivalents are recorded throughout the Great Lakes region for the Early Woodland period. Ceramics similar to Vinette 1 have been reported in northern Ohio (Stothers 1974: 2-3; Shane 1967: 106-113) and in the upper Great Lakes area of Wisconsin and Minnesota (Ritchie and MacNeish 1949: 100). The Fayette Thick type has been found in Adena contexts in Ohio and Kentucky (Ritchie and MacNeish 1949: 100), Schultz Thick has been reported in Michigan (Fischer 1972: 142-47), Marion Thick in Illinois and

Michigan (Munson and Hall 1966: 85), Type C of the Red Ochre culture and the Baumer type in Illinois (Ritchie and MacNeish 1949: 100; Willey 1966: 282). Radiocarbon dates support the temporal equivalence of sites bearing these ceramic types with Vinette 1 sites in contiguous areas of the Northeast (Granger 1978: 34).

The regional applicability of the Vinette 1 type concept is certainly open to question. Many Early Woodland period ceramic types have been compared to Vinette 1, principally because of the presence of interior cord-marking, but they are by no means identical. These variants on Vinette 1 have been described throughout the Northeast.

Pottery with both surfaces covered with cord impressions, and in other respects very much like Vinette 1 from central New York state, has also been reported from Ontario, Canada; New England; New Jersey; eastern Pennsylvania; and the coastal strip of New York....it seems to have been an offshoot from a common ancestral trunk which also branched into Marion Thick and Crab Orchard (Griffin 1952: 97-8, 124-5) in Illinois, Fayette Thick (MacNeish 1952: 48) and Half-Moon Corded (Mayer-Oakes 1955: 184-90, 214) in the Adena of Ohio and contiguous areas, and in other types east of the Rockies (Lopez 1957: 23).

Kinsey (1972: 453-5) and Granger (1978: 137) have also noted Vinette 1-like ceramics from Pennsylvania and northern New York respectively.

Prior to the discovery of the Dawson Creek site no Vinette 1 ceramics had been reported from the Rice Lake area. Very few sites producing Vinette 1 are, in fact, known in southern Ontario. Ritchie (1965: 205) has noted that Vinette 1 occurs in the Ottawa Valley and elsewhere in eastern Ontario, as well as at the bottom of the earliest Point Peninsula stratum at the Frank Bay site on Lake Nipissing. Wright (1967: 124, 130) notes the recovery of a single Vinette 1 sherd from the Heron Bay site in northern Ontario as well as minor occurrences of Vinette 1 at the Ault Park, Kant, and Malcolm sites in southeastern Ontario. Wright (1971:3) also reports three Vinette 1 sherds from the lower levels of the Dougall site at the narrows between Lake Simcoe and Lake Couchiching in south-central Ontario.

A small Vinette 1 sample was excavated from the Donaldson site near the mouth of the Saugeen River on the Lake Huron shore in southwestern Ontario. Some of these ceramics were found in pit 2 in the burial area of the site where a radiocarbon date of 530 ± 60 B.C. was obtained. Incised, rocker-stamped, and pseudo-scallop shell ceramics of Middle Woodland cultural affiliation, however, were also found in this pit. Sherds from one of 2 Vinette 1 vessels excavated at the site in 1971 were found in a hillside midden where a radiocarbon date of 585 ± 150 B.C. had previously been obtained (Finlayson 1977: 591; Wright and Anderson 1963: 50).

The Bruce Boyd site in Norfolk county on the north shore of Lake Erie in southwestern Ontario has yielded the largest Vinette 1 sample so far recorded in Ontario. Spence et al (1978: 36-38) describe a sample of 118 sherds comparable to Vinette 1 from this burial site. They note close similarities between Bruce Boyd ceramics and Vinette 1 sherds from the Donaldson site although remarking finer and more regularly disposed cord impressions on the Donaldson sherds.

Characteristic, Bruce Boyd ceramic attributes included cord-wrapped paddle, exterior-interior vessel surface malleation, straight or occasionally slightly everted rims, flat and sometimes rounded lips, coil construction, coarse and friable paste, grit temper comprised of sizeable fragments of feldspar, mica, and quartzite, medium brown surface colour with similar or slightly darker sherd interiors, and inadequate firing of a number of sherds. Rims ranged from 5 to 9 mm in thickness, with an average of 7.8 mm. Body sherds ranged from 6 to 19 mm in thickness, with an average of 11.7 mm. Exterior surfaces varied between horizontal, vertical, and oblique malleation with a minority of overlapping imprints. Horizontal cord-

malleation was predominant on interiors. Cord-impressed, punctate, and smoothed lips were noted. Punctates consisted of irregularly spaced, small and deep oval impressions. Two instances of rim sherd exterior punctuation were also noted. The exterior orientation of cordmarking on rims and sherds with discernible coil breaks was 31% horizontal, 38% vertical, 25% oblique, and 6% with two overlapping sets of imprints. On the interior the orientation was 85% horizontal and 15% oblique. About 11% of the exteriors and 9% of the interiors of all sherds showed partial obliteration of cord impressions by smoothing (Spence et al 1978: 36-38).

The similarity of Bruce Boyd and Dawson Creek site ceramics is striking. The presence of incipient forms of exterior decoration at both sites is a significant departure from diagnostic Vinette 1, as is the high frequency of horizontal interior wiping and obliquely cord-malleated exteriors. At Bruce Boyd, cord impressions completely cover both exterior and interior vessel surfaces. This is not the case at Dawson Creek where a high proportion of plain or smoothed-over sherds occur. Smoothing is noted as a minor trait at Bruce Boyd. Since a radiocarbon date of 2470 ± 65 B.P. or about 520 B.C. (S-1288) (M. Spence, personal communication) is associated with burial feature 1 at the Bruce Boyd site, ceramic attribute differences with Dawson Creek cannot be ascribed to temporal discreteness. Since the two sites are extremely close in age, sources of ceramic variation between them might better be sought in regional cultural divergences, variable cultural influences, or perhaps in the relative size and completeness of ceramic samples from both sites.

Dawson Creek ceramics show considerable similarity to those from the Batiscan Early Woodland site near Three Rivers, Quebec. This site is estimated on geological evidence to date between 1,000 and 800 B.C. Wright describes 37 sherds from Batiscan as Vinette 1 in type. They are characterized by overall cord-marking with various orientations of exterior to interior cording. Slightly everted rims predominate. The most common exterior-interior surface treatment combinations are, in descending order of frequency, both surfaces indeterminate, both surfaces obliquely corded, horizontal exterior and obliquely corded interior, exterior overlapping corded and interior horizontal corded, exterior vertical corded and interior horizontal corded, and exterior vertical corded and interior indeterminate corded. Sherd thickness was between 5 and 11 mm with a mean of 8.6 mm (Levesque et al 1964).

Ritchie and Funk (1973:96, 108) have described ceramics from the Scaccia Early Woodland site in central New York as Vinette 1 in type despite the presence of atypical attributes. Scaccia ceramics are typically vertically or obliquely corded on the exterior, horizontally corded on the interior, and occasionally left plain. Vessels are straight-sided, elongate, and conoidal-based with flat or rounded lips. Faint oblique and widely spaced incised lines over cording are present on some sherds. Lip thickness varies between 4.7 and 9.5 mm with the majority between 6.3 and 7.9 mm. Thickness increases rapidly towards vessel bases, often attaining 19 mm. Body sherds range between 9.5 and 19 mm in thickness, with the mode between 9.5 and 12.7 mm. Temper is of medium to coarse metamorphic rock. The use of luted fillets, usually three or four thick, in vessel construction is noted. No decorative attributes are reported. A radiocarbon date of 870 ± 60 B.C. (Ritchie and Funk 1973: 116) is associated with a Scaccia site feature which contained diagnostic Early Woodland ceramics.

Dawson Creek site ceramics show less similarity to those from the Scaccia site than to ceramics from the Bruce Boyd and Batiscan sites. Ceramics from Bruce Boyd, in turn, have been noted as more similar to New York Vinette 1, from sites such as Scaccia, than to ceramics from Batiscan in Quebec. The lack of a radiocarbon date for Batiscan makes inferences of cultural affiliation and directions of influences difficult but it seems a reasonable supposition that Batiscan may fall somewhere between Scaccia and Dawson Creek in age. If Batiscan did

prove close in age to Dawson Creek and Bruce Boyd, a case might be made for northward and eastward penetration of Vinette 1 from New York into adjacent Ontario and Quebec.

Ritchie (1965: 178) suggests the initial appearance of Vinette 1 ceramics in the Northeast about 1,000 B.C. No dates older than about 600 B.C., however, are associated with Vinette 1 in southern Ontario. The only possible indication of a greater time depth for Vinette ware in Ontario is the recovery of Vinette-like sherds from the Burley site near Port Franks on the Lake Huron shore in southwestern Ontario. Dentate sherds from the first occupational stratum of this site are associated with a radiocarbon date 667 B.C. \pm 220 years. These sherds are thicker, coarser, and less smooth but otherwise generally similar to Vinette Dentate ceramics of the early Point Peninsula Vinette 2 series of the early Middle Woodland period. It may be significant that ceramics from an underlying and earlier occupational stratum at the site also possess the general characteristics of Vinette ware (Jury and Jury 1952: 70-73).

Kenyon (1959: 20) considered crude dentate sherds from the Inverhuron site on the Lake Huron shore in southwestern Ontario as virtually identical to those from the Burley site. He applied the type name of Inverhuron Dentate. Although the similarity of Inverhuron Dentate and Vinette Dentate stylistic concepts seemed important, more specific correspondences with Middle Woodland ceramics of the New York Point Peninsula tradition were not identified.

An early ceramic assemblage including a large sample of Inverhuron Dentate sherds was recovered at the Donaldson site. The ceramic sample was not, however, amenable to classification by the Point Peninsula typology of Ritchie and MacNeish (1949). The principal Donaldson site occupation, radiocarbon dated to about 500 B.C., is subsumed with the Burley and Inverhuron sites under the Saugeen Focus designation. Wright has proposed that the Saugeen Focus occupation of Donaldson was contemporaneous with Vinette 1 in New York and other portions of southern Ontario. He has suggested that Saugeen peoples may have adopted the Vinette 2 ceramic tradition yet have been unable to duplicate paste attributes, resulting in only an apparent similarity with Vinette 1 (Wright and Anderson 1963: 23, 46, 50). Finlayson (1977: 644), however, recognized diagnostic Vinette 1 at Donaldson and infers a discrete Early Woodland occupation immediately prior to Saugeen.

Both early and late phases of the Saugeen culture are defined by Finlayson (1977: 604) for southwestern Ontario. The early phase, distinguished by pseudo-scallop-shell stamped ceramics, is assigned to the period between 700 B.C. and 100 A.D. The late phase, characterized by dentate-stamped and rocker-stamped ceramics, is placed between 100 A.D. and 800 A.D. By about 1 A.D., Late Saugeen had replaced Vinette 1 in southwestern Ontario while Point Peninsula from New York State had replaced Vinette 1 in south-central and southeastern Ontario. Late Saugeen ceramics are coeval with Middle Woodland period Point Peninsula ceramics of the Vinette 2 series in New York and more easterly portions of southern Ontario while Early Saugeen ceramics overlap both spatially and temporally with Vinette 1 in southern Ontario.

Extant archaeological information suggests that Middle Woodland groups such as Saugeen had permeated southern Ontario before Vinette 1 - using Early Woodland groups were completely established in the province. The radiocarbon dated contemporaneity of Vinette 1-bearing sites such as Bruce Boyd and Dawson Creek with Early Saugeen sites directly demonstrates the co-existence of these divergent ceramic traditions and renders suspect any suggestions of developmental continuity between Vinette 1-using and Saugeen Focus groups. Finlayson (1977: 362) rightly argues that Saugeen should be viewed as a separate culture with a distinct adaptation to the peninsular portion of southwestern Ontario.

Finlayson (1977: 644) postulates a direct Saugeen culture derivation from the Inverhuron Archaic culture of southwestern Ontario. Both Lee (1952) and Wright (Wright and Anderson

1963) have proposed that a strong northwestern ceramic influence was grafted onto the Inverhuron Archaic. Wright (1967: 135) has even noted that both Saugeen and Point Peninsula could be products of a variable blending between northern Laurel and southern-derived Hopewellian cultures onto indigenous Archaic or Early Woodland bases. His suggestion of Laurel influences from the north, Hopewellian influences from the south, and Meadowood influences from the southeast merits consideration although an early Saugeen context for diffused elements of all three cultures remains unproven. While Saugeen might reflect a grafting of various cultural influences onto existing Vinette 1 ceramic traditions, the limited time-depth of Vinette 1 in southern Ontario makes direct cultural continuity seem improbable.

Understanding of the origin, temporal position, geographic extent, and cultural influence of Vinette 1 and Vinette 1-like ceramics in the Northeast obviously awaits more detailed study and comparison of key sites. The degree to which divergent ceramic traditions found expression within a regional Early Woodland period cultural milieu is a critical area for investigation. The extent to which late Early Woodland sites such as Dawson Creek presaged the well-developed local cultures and ceramic traditions of the early Middle Woodland period in southern Ontario remains to be elucidated by a process of careful research.

ACKNOWLEDGEMENTS

Test excavation of the Dawson Creek site was conducted under archaeological licence 76-B-0080 issued by the Ontario Ministry of Culture and Recreation. Funding for archaeological survey of the western Rice Lake basin, which led to discovery of Dawson Creek, was generously provided by the Ontario Heritage Foundation. The Trent University Department of Anthropology, under Dr. Richard B. Johnston, furnished technical support for the survey. All Dawson Creek site material is presently curated at the Trent University Archaeological Centre in Peterborough, Ontario.

The following individuals kindly provided analytical services. Dr. Steven Cumbaa of the Zooarchaeological Identification Centre, Ottawa, and Dr. Howard Savage of the University of Toronto examined the Dawson Creek faunal material. Dr. John McAndrews and Rudy Fecteau of the Royal Ontario Museum Geobotany Laboratory analyzed archaeobotanical remains. Dr. Lee Clayton of the Geological Survey of North Dakota and Charles Wray of Ward's Natural Science Establishment, New York, examined chalcedony specimens. Sterling Presley of the National Museum of Man, Ottawa, prepared petrographic slides of Dawson Creek chalcedony.

The writer is indebted to crew members Steven Hallford and Andrew Stewart, as well as volunteer Gordon Dibb, for their energetic contribution to the project. The interest and cooperation of Aylmer Dawson, owner of the site property, is gratefully acknowledged. Thanks are also due Mima Kapches for a critical reading of this paper and to Brian Molyneaux for his expert preparation of photographic plates. Finally, Dr. Michael Spence of the University of Western Ontario at London is to be thanked for courteously giving permission to publish radiocarbon date S-1288 from the Bruce Boyd site in southwestern Ontario.

REFERENCES CITED

- Finlayson, William David
 1977 The Saugeen Culture: A Middle Woodland Manifestation In Southwestern Ontario. *National Museum of Man, Mercury Series, Paper No. 61*, 2 Vols. Fischer, Fred W.
 1972 Schultz Site Ceramics. In *The Schultz Site at Green Point: A Stratified Occupation Area in the Saginaw Valley of Michigan* (edited by J. E. Fitting). *Museum of Anthropology, University of Michigan, Memoirs No. 4*, pp. 137-190.
- Funk, Robert E.
 1976 Recent Contributions To Hudson Valley Prehistory. *New York State Museum, Memoir No. 22*.
- Granger, Joseph E., Jr.
 1978 Meadowood Phase Settlement Pattern In The Niagara Frontier Region Of Western New York State. *Museum of Anthropology, University of Michigan, Anthropological Papers No. 65*.
- Jackson, L. J.**
 1977 Preliminary Report On Test Excavation Of The Early Woodland Dawson Creek Site (7ND49), Rice Lake, Ontario. Unpublished manuscript on file with Ontario Ministry of Culture and Recreation, Toronto, 160 pp.
- Johnston, Richard B.
 1968 The Archaeology of the Serpent Mounds Site. *Royal Ontario Museum, Art And Archaeology Division, Occasional Paper No. 10*.
- Jury, Wilfrid W. and Elsie McLeod Jury
 1952 The Burley Site. *Ontario History, Vol. 44, No. 2* pp. 52-75.
- Kenyon, Walter A.
 1959 The Inverhuron Site. *Royal Ontario Museum, Art And Archaeology Division, Occasional Paper No. 1*.
- Kinsey, W. Fred, III
 1972 Archeology In The Upper Delaware Valley. *Anthropological Series of the Pennsylvania Historical And Museum Commission, No. 2*.
- Lee, Thomas E.
 1952 Preliminary Report on an Archaeological Survey of Southwestern Ontario for 1950. *National Museum of Canada, Bulletin No. 126*, pp. 64-75.
- Levesque L'Abbé Rene, F. Fitz Osborne, et J. V. Wright
 1964 Le Gisement De Batiscan. *Etudes Anthropologiques Musee National Du Canada, No 6*.
- Long, Austin and Bruce RippetEAU
 1974 Testing Contemporaneity and Averaging Radiocarbon Dates. *American Antiquity, Vol. 39, No. 2, Part 1*, pp. 205-215.
- Lopez, Julius
 1957 Some Notes On Interior Cord-Marked Pottery From Coastal New York. *Pennsylvania Archaeologist, Vol. 27, No. 1* pp. 23-32.
- Munson, Patrick J. and Robert L. Hall
 1966 An Early Woodland Radiocarbon Date From Illinois. *The Michigan Archaeologist, Vol. 12, No. 2*, pp. 85-87.

- Ritchie, William A.
 1965 *The Archaeology Of New York State*. Natural History Press. Garden City.
 1971 A Typology And Nomenclature For New York Projectile Points. Revised edition. *New York State Museum And Science Service, Bulletin No. 384*.
- Ritchie, William A. and Robert E. Funk
 1973 Aboriginal Settlement Patterns In The Northeast. *New York State Museum and Science Service, Memoir 20*.
- Ritchie, William A. and Richard S. MacNeish
 1949 The Pre-Iroquoian Pottery Of New York State. *American Antiquity*, Vol. 15, No. 2, pp. 97-124.
- Shane, Orrin C.
 1967 The Leimbach Site: An Early Woodland Village in Lorain County, Ohio. In *Studies In Ohio Archaeology* (edited by O. Prufer and H. McKenzie), pp. 98-120.
- Spence, Michael W., Ronald F. Williamson and John H. Dawkins
 1978 The Bruce Boyd Site: An Early Woodland Component In Southwestern Ontario. *Ontario Archaeology*, No. 29, pp. 33-46.
- Stothers, David M.
 1974 The Oak Openings #4 Site (33-LU-33): An Early Woodland Site In Northwestern Ohio. *Toledo Area Aboriginal Research Club Bulletin, Vol. 3, No. 2*, pp. 1-18.
- Willey, Gordon R.
 1966 *An Introduction to American Archaeology, Volume One: North And Middle America*. Prentice-Hall. Englewood Cliffs.
- Wright, James V.
 1967 The Laurel Tradition and the Middle Woodland Period. *National Museum of Man, Bulletin No. 217*.
 1971 The Dougall Site. *Ontario Archaeology*, No. 17, pp. 3-23.
- Wright, James V. and J. E. Anderson
 1963 The Donaldson Site. *National Museum of Canada, Bulletin No. 184*, pp. 1-113.

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