Disk runtees: 17th century horizon markers of contact and colonialism

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Abstract

Disk runtees are the most common and most easily recognized form of a set of marine shell artifacts produced in the New Netherlands region in the middle 17th century. In spite of this early chronological placement, archaeological distributions of disk runtees span two-thirds of the continent. Moving outwards from their point of manufacture, some disk runtees traveled thousands of kilometers through the swirling shock waves of 17th century social change in modes which defy the expectations of down-the-line trade. Rather, movements of refugees appear to explain the movements of runtees outside of the Northeast. The apparent significance of this pattern within related aspects of 17th century social disruption, culture contact, and colonial penetration is briefly explored.

Introduction: Writing at the very beginning of the 18th century, and just before noting that "the Indians of Virginia are almost wasted," Robert Beverly (1722[1705]:3:62) described a suite of marine shell ornaments in use during his period of observation. He makes particular mention of an unusually drilled ornament, one of the two forms called a runtee.

> "*The Indians also make pipes of this* [marine shell]*, two or three inches long, and thicker than ordinary, which are much more valuable. They also make runtees of the small shell, and grind them as smooth as peak. These are either large like an oval bead, and drilled the length of the oval,* ***or else they are circular and flat, almost an inch over, and one third of an inch thick, and drilled edgeways****. Of this shell they also make round tablets of about four inches diameter, which they polish as smooth as the other, and sometimes they etch or grave thereon circles, stars, a half moon, or any other figure suitable to their fancy. These they wear instead of medals before or behind their neck, and use the peak, runtees and pipes for coronets, bracelets, belts, or long strings hanging down before the breast, or else they lace their garments with them, and adorn their tomahawks, and every other thing that they value.*" Beverly 1722[1705]:3:58-59 (emphasis added).

Of course, the emphasis Virginia's Indians placed on marine shell in ornamentation was nothing new – only the ability to produce wampum-like marine shell pipes "pipes two or three inches long" and flat circles of shell "drilled edgeways" had changed. Otherwise, Beverly's description is in accordance with the importance of marine shell in native economic and political interactions over the last several thousand years in Eastern North American. Thus it is no surprise that marine shell came to play an important part in interactions between Europeans and natives as they grappled with ways to articulate their various interests in early colonial settings. Predictably, technological changes in the manipulation of marine shell were an immediate outcome of this interaction, given the superiority of metal tools in shaping, polishing, and piercing the resistant and durable shell that for thousands of years had provided a standard symbolic venue in which labor, value, and meaning were embedded.

In the Northeast, the economic pursuits of natives and Europeans quickly coalesced into new practices. Both parties could see advantage in the increased production and consumption of marine shell artifacts, particularly wampum. This mode of exchange was well-established from the earliest instances of the Dutch presence. By the 1620s contemporary administrative accounts attest to the fact that "*without wampum, we cannot obtain beavers…*" and note that the greatest part of the wampum in question was manufactured by the natives of Long Island Sound and controlled primarily by the Pequots and Narragansetts. By the late 1630s the English had conquered the Pequots and were in coercive control of their part of marine shell production industry, which they restrained from the colonists and standardized (Ceci 1977:191-192, 208-214). Similarly, the Dutch also took control of marine shell manufacture circa 1640. In general, Dutch

and English control over native production of marine shell was complete by 1645 (Ceci 1977:221-225).

At essentially the same time, other marine shell ornaments began to be manufactured using metal tools. Traditional scales of production for shaping, polishing, and piercing marine shell (Francis 1989) were transformed by using metal tools to replicate large numbers of traditional ornaments and create innovative forms. There is ample archaeological evidence that what I term here "machined marine shell" ornaments were avidly consumed. A number of archaeological sites show a marked upswing of marine shell consumption that corresponds exactly with the increase of marine shell production under European influence (Hayes and Ceci 1989). Marine shell ornaments from this era can serve as excellent archeological horizon markers because they were made in appreciable numbers for a short period of time and attained a measure of standardization. One of these forms, marine shell disk runtees (Figure 1), is particularly distinctive on the basis of both stylistic and technological attributes. Furthermore disk runtees are notable in that their circulation deposited a startling "high water" mark two-thirds of a continent distant from their point of manufacture near Long Island (Figure 2).

Archaeological dating of machined marine shell: Thanks to an extremely detailed record of discrete site occupations in Iroquoia (Sempowski 1989) we know that marine shell items of all kinds suddenly become extremely common beginning Period V in the Seneca sequence (A.D. 1630-1655). Machined marine shell begins, but is still rare, during this time period. Then, in Period VI (A.D. 1650–1675) machined marine shell artifacts, including disk runtees, suddenly become very common. Immediately after this,

in Sempowski's Period VII (A.D. 1670-1687) the quantity *and variety* of marine shell, including disk runtees, drops sharply. Sempowski notes that this is coincident with the English takeover of the Dutch trade.

A closer look at manufacture and chronology: Disk runtees are one form within a complex of machined shell artifacts also including gorgets, effigies (representing fish, birds, turtles, beavers, geese, and birdmen), geometric shapes, barrel-shaped runtee beads, and very long cylindrical beads (Figures 3-6). The uniformity of various forms of machined marine shell is ample testimony to its proto-industrial mode of production, yet we have very little documentation of the manufacture of these non-wampum varieties of machined marine shell. Although no comprehensive study of this complex of artifacts has yet been completed, a further estimation of the variety of machined marine shell can be assembled by perusing a handful of publications (Beauchamp 1901; Cowin 2000; Heye and Pepper 1915; Houghton 1922:Plate XI; Kent 1989: Fig. 39; Sempowski 1989).

Most researchers have assumed manufacture of machined marine shell artifacts links rather seamlessly to the much better researched history of the manufacture of wampum (e.g., Ceci 1977, 1989; Peña 2001). This is reasonable in a technological sense, since the origin of this complex of machined shell is almost certainly connected to initial stages of the industrial production of wampum. But non-wampum varieties of machined marine shell seem to follow very different time and space trajectories than wampum.

Most importantly, archaeological chronologies indicate the non-wampum varieties of machined marine shell are far more temporally limited than wampum. Production of many forms of machined marine shell ornaments seems to center largely

on the third quarter of the 17th-century, although a more limited set of forms may continue later. The presence of machined marine shell throughout Northeastern sites is largely in accordance with its highest frequencies in the Seneca assemblages of the 1655 to 1675 period. Wampum manufacture with metal tools began before this, with local tribes in the Long Island Sound areas producing wampum with metal tools by the 1630s. After the late 17th century wampum continued to be manufactured, first by native and later by settler artisans in both English and Dutch controlled coastal areas, continuing well past the middle 18th-century (Ceci 1977:246; Peña 2001).

Attempting to explain the relatively short-term tenure of machined marine shell items other than wampum, we might appeal to market incentives and historical political contingencies. There was a notable glut of wampum during the 1650s and 1660s after its massive overproduction for use as currency (Ceci 1977:248). Wampum manufacturers, possessing tools and raw materials, but no markets, might be expected to have retooled to make other marine shell ornaments. Another significant factor may have been the late 1640s onset of regulations controlling wampum manufacture, which would have driven non-authorized marine shell manufacturers out of the wampum market. Both developments, either independently or in tandem, could easily alter the production and market incentives of existing shell manufacturers and explain why large amounts of machined marine shell ornaments suddenly appear in Northeastern trade networks starting about 1650. Likewise, it could be that European settlers, initially forbidden from participating in wampum production (Ceci 1977:214), saw production of marine shell ornaments as an alternative industry.

In determining what factors correlate with the cessation of machine marine shell artifacts, it might not be coincidental that local scarcities of marine shell raw material documented in the 1670s (Ceci 1977:262-263) coincide with the decline of the machine marine shell coming into the Seneca sequence. After all, machining and decorating gorgets, effigies, long tubular beads, and runtees all require larger pieces of marine shell and more labor than white wampum beads. Likewise changing political and labor relations after King Philip's War in the 1670s (Calloway 1997) also may be related to cessation of the machined marine shell ornament industry. Further, after the middle decades of the 17th-century, native bead manufacturers were increasingly reduced to debt peonage and the clear focus was on mass production of huge amounts of wampum. Later, wampum manufacture shifted to Europeans using fully industrial modes of production. Many of the forms of machined marine shell ornaments seem to have disappeared as fast as they appeared, leaving primarily wampum as an economically viable commodity. Ceci notes that the greatly inflated value of wampum had declined by 1665, presumably re-stimulating its production. Is it coincidence that the peak period of machined marine shell in the Seneca sequence exactly coincides with the period of the wampum market's glut and declines when the market recovers and the raw material becomes scarce? Since far lesser amounts of machined marine shell are seen in the 1670 – 1687 period Seneca sites than the previous A. D. 1650 – 1675 period, we might assume that the two frequencies are linked indicators of a market dynamic (Ceci 1977:247-248, 262-276).

To summarize, I suggest the late 1640s reorganization of wampum production and its subsequent decline in value from over-production stimulated the emergence of marine

shell ornament production in the late 1640s and early 1650s. Then, some combination of the late 1660s resurgence of value of wampum, the 1670s local depletion of large pieces of marine shell raw material, and the serious reorganizations of native labor after King Philip's War account for a discontinuation of marine shell ornament production by the end of the 1670s. This scenario is further supported by the observation that machined marine shell artifacts have the hallmarks of having been made in cottage industrial settings, with some producers turning out essentially identical items. The easily compared varieties show wide distribution of strikingly similar forms and decorations that, by needs, come from a single set of communicating workshops. Yet there are numerous variations of the more popular forms. The same holds true for disk runtees.

One of the most common types of runtees is a disk with two transverse suspension holes and decorated with dot-filled crossbars and edge zones (e.g., Figure 1, Item 2c). Similar specimens are found everywhere disk runtees have been found. Likewise, runtees with single or nested rosette decoration (e.g., Figure 1, Item 5c) are widely distributed (e.g., Iowa, Michigan, Pennsylvania, and New York). In a number of cases disk runtees have been found in attractive matched set necklaces (Figure 1, Rows 6-8) some having a machined marine shell birdman pendant attached. Yet, in any one site the sample of disk runtees shows considerable variation. Some runtee disks are identically sized but others vary a great deal in diameters and thickness. Disk runtees with one versus two transverse holes are also widely distributed. In spite of variation between products, individual disks are almost always uniform in thickness, showing they are made on machined blanks. The tiny, perfectly cylindrical holes drilled several centimeters through disk runtees and tubular beads typically measure approximately 2 mm diameter.

Overall, these attributes seemingly require lathes in the manufacture process. Not surprisingly, there does not seem to be any sign of machined marine shell on ship inventories of the time (Baart 1996:180; Dongen 1996:135; Kraft 1989:88; Roever 1996), nor would we expect it.

Meaning: We can assume from its stylistic attributes that machined marine shell was manufactured specifically for native trade and that it was highly valued in that context. It requires no great leap of faith to conclude that machined marine shell intentionally duplicated existing native classes of symbolic material and was designed to reproduce and expand upon existing shell ornament types. We might assume that the large quantities of machined marine shell flooding native economies resulted in inflation in both proto-economic and symbolic realms. Both wampum and machined marine shell were instruments of economic manipulation and thus, much like wampum itself, "coining" this symbolic capital was a part of the colonial program (Martien 1996) regardless of who actually manufactured it.

Primary distribution of runtees: Site dates, ethnic associations, and metric and design notations included in Table 1 show two trends. First, there is support for disk runtees, along with a number of other machined marine shell artifacts, being distributed among a limited set of ethnic groups on a time frame consistent with their documentation in the Seneca sequence. Specifically, the main groups in possession of machined marine shell ornaments are the Five Nations Iroquois, the Munsee, and the Susquehannock. Especially large amounts of machined marine shell reached the Mohawk, Onondaga,

Oneida, Cayuga, and especially the Seneca. As implied by the above-mentioned statement by colonial authorities – collectively these are the primary groups supplying the beaver trade. Disk runtees in these sites are by far most common in 1650s through 1680s contexts. Lesser numbers of disk runtees, presumed to be curated specimens, are found in early 18th-century contexts and persist as late as circa 1750, some 75 years after their presumed period of manufacture. Graphing temporal associations of Northeastern sites with disk runtees supports this pattern, showing very few sites with beginning occupation dates after A.D. 1700 (Figure 7).

Consensus among Northeastern archaeologists is that disk runtees become notably less common after 1675 (Sempowski 1989; Veit and Bello 2001:51). In order to take a closer look, I plotted only those Northeastern sites where disk runtees are dated discretely in 25 year site spans or less. Figure 8 shows that contexts up to about A.D. 1700 form a continuous distribution with only one discretely dated Susquehannock descendant community (Conoy) being a later outlier. Based on archaeological evidence alone we can conclude that disk runtee manufacture had almost certainly ceased by A.D. 1700, even though small numbers of runtees were deposited for some decades afterward. Documents cited above allow us to refine this estimate to a period of manufacture of about thirty years - from the late 1640s through circa 1675. Interestingly, southerly and westerly contexts provide slightly later dates (Table 1).

Allowing for curation, then, my first conclusion is that the main distributional pulse of machined shell disk runtees as trade goods closely follows the Seneca sequence, with nearly all runtees reaching the Munsee, Susquehannock, and Five Nations circa 1650-1680. The second trend I interpret from the data is that the attenuated distributional

signature of these items across distance (i.e., beyond this core area) does not have the attributes of a commodity. Specifically, the distribution of runtees outside the core area that I have defined lacks the spatial continuity and attenuating distribution that one would expect of a commodity passed through down-the-line trade. Rather, the secondary distribution of disk runtees is more indicative of middle and late 17th-century movement of peoples. Northeastern populations were in extraordinary flux at this time and wars were dispersing populations from this region to both the west and south. It seems likely that machined marine shell ornaments traveled with these populations.

Secondary distribution of runtees: Certainly some disk runtees might have moved outwards from their core area of distribution through trade networks, as did other types of trade goods. But several lines of evidence argue against this. Western and southern distributions will be discussed separately. Specific citations in this section are appended to Table 1.

Some disk runtees moved down tidewater and piedmont routes to Virginia and North Carolina. For instance, Beverly clearly describes disk runtees in Virginia (although one weak point of this study thus far is the lack of a careful accounting for Virginia runtees). Further south, disk runtees appear in sites of the Nottoway/Meherrin, Sara, Occaneechi, and Tuscarora. Compared to the Northeast, the archaeological contexts here appear to generally post-date 1675. While the mode of distribution of disk runtees to Virginia is not yet clear, to the south of the Chesapeake country these southern disk runtees can logically be suggested to affiliate primarily with the flight of refugees

(during and after Bacon's Rebellion) retreating southward and with sites of those groups who received them.

South of the Chesapeake region, disk runtees are found with the 1680–1710 Occaneechi occupation at Jenrette site in North Carolina. The Occaneechi had fled to here in the 1670s from their previous home in Virginia, where they had received Susquehannock refugees. Likewise, the John Green site, where a large number of runtees is reported just north of the North Carolina state line, is probably affiliated with the Nottaways or Meherrin, who received numerous Powhatan refugees after Bacon's Rebellion (Grumet 1995:273, 278). Groups in the Piedmont, such as the Sara, were more insulated from the general refugee displacements from the north, but almost certainly also received refugees at this time as well. Runtees at Upper Saratown are estimated to date circa 1670-1710. The presence of a necklace of disk runtees among the occupants of Fort Neoheroka during the 1713 siege and subsequent slaughter of the Tuscarora may also relate to absorption of northern refugees.

To the west of its primary area of distribution in the Northeast, early examples of machined marine shell appear to have also passed to Iroquoian-speaking groups west of the Five Nations. Certainly, the Neutral received, and passed along to the Huron, an earlier proto-historic surge of marine shell (Pendergast 1989). We can presume that this moved along the lines of down-the-line trade with the Susquehannock (Heidenreich 1978:384). But these nations were dispersed by the Iroquois at approximately the same time we expect that they would have begun receiving machined marine shell. Here we find another indicator that this distribution must have begun at least slightly earlier than 1650 since a few runtees have been found in the pre-dispersal homelands of the Neutral

and Huron. None are yet known in the Erie region though. Of far greater interest is the substantial distribution of disk runtees to the west of Huronia.

Nearly all the disk runtees in the western Great Lakes correspond closely with Huron/Petun and/or Ottawa sites. Four sites with runtees at the Straits of Mackinaw (Lasanen, Gros Cap, Richardson, and Marquette Street) are the location of refugee settlements of these masters of the Great Lakes trade during two stages of their diaspora – initially from 1650 to 1652 and then again from 1671 to 1705 (Tooker 1978).

Only three other runtee locations are known in the entire western Great Lakes region. Unfortunately, none of these have well-documented archaeological contexts. Two of these three locations are also strongly affiliated with descendants of these same Huron/Petun and/or Ottawa (or Ottawa/Potawatomi) communities. Wexford County, Michigan, has a strong 17th through 20th-century Ottawa presence. And Upper Sandusky, Ohio, is strongly associated with the 1740s settlements of the Wyandot – the direct descendants of the same Huron/Petun who had earlier been at the Straits of Mackinaw. Fort St. Joseph is a French post beginning in the 1680s and Quimby (1939) illustrated material of this period along with the runtees he documents. Primarily Miami and Potawatomi/Ottawa occupations are in the vicinity of Fort St. Joseph, but it was a hub that saw much traffic in the late 17th and early 18th century.

The presence of disk runtees in selected Ottawa and Huron/Petun contexts in the Great Lakes, but their near total absence in the sites of all the client populations of these masters-of-the-trade is a clear pattern. Runtees were in the hands of these traders. But they were not traded.

Beyond the western Great Lakes, there are four more localities where disk runtees have been found. These locations are especially illustrative of runtees' status as a horizon marker of the middle to late 17th-century and provide the best testimony of their ability to travel great distances. A single disk runtee was found on the surface of the Blood Run site, a huge late 17th-century site near the Missouri River in northwestern Iowa. Blood Run is associated especially with the Ioway and Omaha/Ponca, but was a sort of "Grand Central Station" for the Great Plains where many groups, including the Arikara, came to trade. Under normal conditions a runtee at Blood Run might be interpreted as evidence of trade (Henning 2005; Henning and Shermer 2004), but this runtee is given additional context by three independent lines of evidence - the nearly exclusive ethnic affiliations of runtees in the western Great Lakes, the concentration of runtees further west, and the documentary record discussed below.

Contrasted to the single disk runtee at Blood Run, there is an extraordinary cluster of at least 24 disk runtees (as well as some of the long machine-drilled "wampum" tubes) in at least four Arikara sites of the Middle Missouri region. In the Arikara sites runtees are assumed to accompany the very earliest influx of European trade goods as well as being curated until later dates. One of the Arikara runtee sites (Norvald) supposedly dates to the "pre-contact" Extended Coalescent (A.D. 1550-1675) period, but in general European goods in Arikara sites are thought to post-date 1680 (see Table 1 for references). As with the Mid-Atlantic distribution, we should stay alert to the possibility that these runtees moved with people as opposed to being traded.

Illustrations seem to indicate that disk runtees, wampum beads, and machined shell gorgets may have been present in the Guntersville Basin at the Columbus Landing

site (1Ms^{o}91) along the Tennessee River (Table 1). Since the site is estimated to date 1630 – 1670 (Smith 1999:51), these runtees would have had to travel a great distance relatively quickly. Furthermore, runtees at the Guntersville Basin might have come over the mountains from Virginia or North Carolina or southward with refugees from the Great Lakes.

The highwater mark of disk runtee distribution is represented by three runtees on a necklace collected on the 1850s expedition of Lieutenant Whipple as he surveyed the 35th parallel route from Arkansas to the Pacific (Holmes 1883:229). Whipple's "New Mexico Territory" encompassed both New Mexico and Arizona. In fact, his route roughly approximates much of latter-day U.S. Route 66 and its interstate replacement in those states (Whipple and Foreman 1941:map opposite 272). Consequently, this runtee necklace was collected somewhere along a line passing from Tucumcari, south of Santa Fe, to Albuquerque, and thence west through Navajo Territory to Flagstaff and the Colorado River at Needles. Whipple's account describes artifacts collected from ruins at every opportunity along the route, but does not specifically mention the necklace.

For convenience the New Mexico runtee location has been mapped in Figure 2 in its most likely area for an association with trans-Plains routes – the Rio Grande settlements of "Nuevo Mexico" (e.g. Albuquerque, Pecos, Santa Fe, Taos) near the terminus of the Santa Fe Trail and other long-standing routes to the north and northeast (see Swagerty 1988:Figure 1). We can only presume the New Mexico disk runtees passed through these well-trafficked late 17th-century trails, whether they came down from the Arikara or over from the Lower Missouri River or Mississippi River regions. Even lacking a specific site provenience it is obvious these most traveled disk runtees

moved approximately 3500 kilometers from their point of origin. Bill Billick has examined the New Mexico runtees in the Smithsonian collections and notes that they accompany glass beads dating to the late 17th or early 18th-century (Billick 2002).

Runtees, routes, and refugees: To summarize, I describe a complex of non-wampum machined marine shell, including disk runtees, manufactured near Long Island. I suggest that these artifacts were manufactured from the 1640s through the 1670s, with a peak volume of manufacture and distribution in the 1650s and 1660s. The huge majority of machined marine shell was distributed to a limited range of client populations of the Dutch colony, notably the Susquehannock, the Munsee, and the Five Nations Iroquois. As Sempowski (1989:92) notes, both the volume and variety of shell ornaments was curtailed coincident with the English taking over the Seneca's supply. Because there does not seem to have been a continuing source for these items, an influx of machined marine shell appears to be a crisp horizon marker for the third quarter of the 17th-century in this region.

All else being equal, we would predict that down-the-line distribution of commodity goods passed from group to group would show a pattern of declining density. Numbers should be inversely related to distance from the source. The distribution of runtees does not seem to fit this expectation. Instead, I suggest that the locations both south into the Middle Atlantic and west to the western Great Lakes show nearly exclusive connections to Huron/Petun and/or Ottawa refugees dispersed by Northeastern wars of the middle and late 17th-century, rather than reflecting trade being carried there.

It must be noted that the number of disk runtees in the Middle Missouri Arikara sites alone (at least 24 runtees in four sites) is roughly equivalent the combined total of all other disk runtees found outside the Northeast and Mid-Atlantic. This is in spite of these runtees coming to rest 2500 kilometers from their point of manufacture. Because runtees are a nearly exclusive signature of the Ottawa and Huron/Petun diaspora in the Great Lakes, their concentration among the Arikara begs the question of whether some of these same refugees might not have found a home with the Arikara.

In fact, a tantalizing account allowing for such a movement is recorded. Perrot related that the Huron/Petun/Ottawa described to him that they had spent some time searching for a new home in the west, even to the point of describing the point 12 leagues above the mouth of the Wisconsin River from which the refugees began their trip west from the Mississippi River (Blair, et al. 1911:195). Specifically, Perrot was told "*But in all that region which they traversed, not having seen any place suitable for a settlement, since the country did not have any woods at all, and because only prairies and level plains were to be seen, although bison and other animals were found there in abundance, they took the same route in returning by which they had come; and having once more reached the shores of the Louisianne [Mississippi R.], they ascended it higher*." Wedel (1986) places this journey during the years 1656-1657. Although they reported having failed to find a place for a new settlement and returning to the Great Lakes, we must keep in mind that not all refugees need to have returned for us to have this account. These runtees (and the exclusivity demonstrated by their associations in the Great Lakes) testify that some may have found refuge with the Arikara in the 1650s. The penetration of eastern Great Lakes refugees into the far west, going far beyond their already well-

documented relocation into the Mississippi Valley, resembles the flight of other eastern Great Lakes refugees, such as the Westo (Bowne 2005), who a quarter century after being dispersed by the Iroquois in New York and Pennsylvania, had risen as a major power in Virginia and the Carolinas, and then fallen and were living in Spanish Florida.

Conclusion:

In this study, I seek to emphasize the distance that late 17th century connections (and chaos) extend across a North American landscape that we are used to examining with reference to strictly regional modes of archaeological purview and expanding bodies of historic documentation. In doing so I illustrate another aspect of the shock waves of change that have been hypothesized to vastly exceed the footholds of late 17th century colonial ventures, radiating far beyond the pale of contemporary European documentation (e.g., Ethridge 2006). In part, I do so in hopes of breaking up the notion that provincialized "pre-contact" populations operated solely with reference to local and regional interactions and could be totally uninvolved in distant colonial dramas unfolding across the continent. I am convinced this is especially the case in the multi-faceted turmoil of the second half of the seventeenth century when colonial interstices were rapidly shrinking and colonial ventures were multiplying.

In essence my point here is about "force" – a.k.a. power. Power is not just exhibited as marshaled coercive influence – it can also be reflected in the extraordinary reach of induced chaos, including the chaos and danger that would motivate human actions that would throw the distribution of a horizon marker artifact such as disk runtees

two thirds of the way across the continent, as well as the force involved in a reshuffling of native polities and demographies across much of the intervening space.

This changing sense of colonial effect somewhat alters our archaeologies of accommodation and resistance. Certainly archaeologists can and should look at recontextualized meaning, identity processes, and accommodation and resistance rather than assume the inherent desirability of all European goods or the superiority of European technologies and textual narratives. And certainly we should look at the ways native groups position themselves with strategies to engage a changing political world in native ways. As DuVal (2006) recently pointed out, modes of accommodation, such as those appealed to in Richard White's (1991) Middle Ground, are a secondary strategy, one perhaps seen as weak by those who can manage more complete forms of sovereign identity. But further down this same scale are yet less desirable strategies, some of them strongly conditioned by chaos and disorder.

This may not quite illustrate what Patricia Rubertone (2000:435-438) meant when she said that a focus on culture contact elevates the "event of contact" to proximate cause, but it gives us much the same pause for thought. If the 17th century landscape of North America is laced with "shock waves" that weave in and out of the time-transgressive "culture contact" interface that we imagine we can calendrically impose on these social landscapes, then we need to be especially alert to the effects of the different interpretive venues archaeologists tend to favor for face to face culture contact situations versus the more ideally graduated states of isolation we tend to assume for "pre-contact" peoples. Time and space still matter, but the "colonial dialogue" is much more vibrant and far-reaching that we might have imagined. The "force" illustrated by disk runtee movements

is akin to a trace dye, showing us flow patterns within this only semi-solid medium and challenging us to achieve the level of nuance required to map it.