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Fighting "Fire" With Firearms: The Anglo-Powhatan Arms Race in Early Virginia

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In 1628 Governor William Bradford of Plymouth Plantation expressed his fear and outrage that local Indians were equipped with European muskets. "O, the horribleness of this villainy!" he wrote. "How many both Dutch and English have been lately slain by . . . these barbarous savages thus armed with their own weapons." With powder, bullet-molds, and even replacement parts for their firearms, the Indians were, according to Bradford, "ordinarily better fitted and furnished than the English themselves."[1]

The militant first decades of seventeenth-century English America produced well-armed Indian forces among the Algonquians of coastal New England and the Iroquois further west, but a similar, if less well-known, phenomenon occurred in tidewater Virginia. Much sooner than most early American scholars have realized, the Powhatans desired, acquired, and used firearms—with lethal effect—against the English invaders of the James River basin. While Geronimo's Apache riflemen of the late 1880s have been recognized as the epitome of heavily-armed Indian warriors, few persons would associate the Native Americans' quest for equality in weaponry with the early Jamestown years. But in fact, no sooner had the English invaded the fertile lowlands of tidewater Virginia than the Powhatans adopted new technology and tactics

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and entered into a deadly arms race for cultural survival and territorial sovereignty.

Throughout eastern North America, the introduction of European firearms produced a revolution in intertribal relations and aboriginal warfare. The colonizers and their weapons complicated and/or changed the precontact Indian power balance in many areas, and the imported technology created new options for native polities living in close proximity to the Europeans.[2] Just as the availability of muskets allowed the Iroquois to launch a destructive *blitzkrieg* against the Hurons in the late 1640s, the Powhatans, sandwiched between well-armed aliens on the east and traditional native enemies on the west, recognized how important it would be for them to monopolize the new technology and increase their offensive strength vis a vis other Indians. However, the militant colonists at Jamestown were more concerned with pacifying the Powhatans than with allowing them to gain dominance over inland Siouan tribes, and the tidewater Indians soon sought parity in fire power to prevent their own conquest—by land- (not fur-) oriented Europeans.[3]

The introduction of the musket also revolutionized the tactics and customs of precontact combat. Hellish thunder, clouds of choking smoke, and an unprecedentedly high level of mortality in battle replaced the hum of skillfully aimed arrows, proud ranks of colorfully arrayed warriors fighting in open field, and an aboriginal tradition of relatively low mortality in any single engagement. The frightening killing potential of firearms quickly persuaded Indian warriors to abandon their massed battle formations and open-field heroics in favor of hit-and-run guerilla tactics that have erroneously been interpreted as "typical" of precontact woodland warfare.[4]

The first Englishmen at Jamestown reported how the Powhatans elaborately "painted and disguised themselves" before a battle; carefully "pitched the fields"; employed special tunes and rituals for "leaping and singing" warriors; arranged themselves in orderly ranks and files before attacking; and finally advanced "prettily" upon the enemy "in the forme of a halfe moone," with each column "charging and retiring"in a regulated fashion.[5] At a time when the Powhatans and other Indian groups were fighting their battles according to age-old methods, it was Europeans like Samuel de Champlain and Captain John Smith who taught their men to fire their muskets at exposed Indian warriors while crouching behind trees.[6]

From the beginning of the contact era, European explorers and first settlers would have considered it unthinkable to arrive in a little-known and potentially dangerous new country without their firearms. Sixteenth-century colonial theorists ranked the musket and other "fiery weapons" on a par with European sailing vessels and the printing press as important benchmarks of advanced civilization and western technology. Thinking more of imperialistic glory than of human suffering, a future archbishop of Canterbury in 1600 called firearms one of the "miracles of Christendome."[7] Muskets and "civilized" Europeans were thought to go hand in hand, and even though many Indians quickly mastered the new and complicated technology, they would continue to be regarded as "barbarous savages" by Governor Bradford and other Christian invaders.

The symbolic superiority of firearms for "civilized" Europeans was given practical reality when iron and gunpowder confronted the wood and stone weapons of Native Americans. Elizabethan Englishmen regarded the New World's Indians as "simple people, that went naked, and had no use for yron nor steele," but guidelines drawn up for Sir Walter Ralegh's Roanoke Colony in 1585 recommended that four hundred men—one-half of the total number proposed—should go to American equipped with firearms. Even in the planning stage, colonial theorists recognized, as the Spanish had demonstrated, that outnumbered Europeans in a hostile environment had a better chance of surviving if they possessed the psychologically unnerving and physically destructive musket.[8]

When Englishmen established their first extensive contact with Indians at Roanoke, they were very arrogant about their military superiority. The self-assured Thomas Harriot declared that the colonists would easily best the Indians in a war because the English had "advantages against them so many maner of waies, as by our discipline, our *strange weapons* and...especially by ordinance great and small." Indians lacked "skill and judgement in the knowledge and use of our things," wrote Harriot, and thus, "running away was their best defense."[9]

In only a few short years at Roanoke, the English ravaged the North Carolina coast with disease and terrorism, and yet Ralegh's colony disappeared when the "superior" Englishmen were overrun by, escaped from, or were absorbed into, area tribes. While most imported European technology and theory proved useless in preserving this first Elizabethan colony, firearms had demonstrated

their value in intimidating Indians. What no Englishman contemplated in 1590, though, was that in future colonization efforts the white invaders' monopoly in muskets would be lost and that Indians could and would quickly adapt to the imported methods of war.

Undeterred by the failures at Roanoke, Englishmen arrived at Jamestown in 1607 well supplied with firearms and self-assurance. Their swagger and confidence was evident in their belief that a tiny garrison of 104 men and boys could hold at bay some 3,000 Powhatan warriors living in tidewater Virginia.[10] The original instructions prepared by the Virginia Company of London in 1606 emphasized how firearms were the great equalizers from the beginning. The Indians "only fear" cannon and muskets, wrote the company directors, and unless the Jamestown garrison saw to its guns, the natives would "be bould...to Assaillt" the colony.[11] This advice was given a real test when, only a dozen days after first landing at Jamestown, the English were forced to demonstrate the defensive capabilities of their firearms. On May 26, 1607, the colonists suffered a "furious Assault" by several hundred "very valiant" Powhatan warriors, who charged right up to the palisades of James Fort. Although many warriors were slain and wounded by musket fire, the attacking Powhatans did not retreat until cannon fire from nearby ships dramatically toppled a tree bough into their midst.[12]

The Powhatans had thoroughly tested the Jamestown garrison, wounded several Englishmen, and learned a valuable lesson about "fiery weapons." When a second attack was launched three days later, the Indians were noticeably cautious, showing "more feare, [and] not daring approche scarce within muskett shott."[13] The frightened English claimed that if it had not been for their firearms "our men had all beene slaine," and although the Powhatans continued to harass the fort and to kill colonists who wandered away "to doe naturall necessity," they remembered the harsh lesson of May 1607.[14] The Englishmen's self-confidence in arms quickly returned, and they mocked the Indians' "custom" of falling down "and after run[ning] away" whenever a musket was fired in their direction.[15] The Powhatans' suddenly-discovered impotence in the face of firearms must have been frustrating indeed, as Indian bowmen, forced to keep their distance, contented themselves with killing English dogs when human targets were lacking.[16]

However much the ethnocentric English condemned the "lurk-

ing savages," the Powhatans' fear and caution regarding firearms is readily understandable. Although English musketeers could not equal an Indian bowman's rate of fire or match his accuracy, muskets and cannon were psychologically terrifying and physically lethal weapons.[17] The loud explosion of the powder alone could intimidate an enemy accustomed only to the silent flight of arrows, while the lead shot could easily splinter arms and legs and produce horrible body wounds when the soft bullets expanded upon impact. Very soon after the English landed at Jamestown, the forests and fields along the James River became stained with the blood of Powhatans killed and wounded by musket fire. Captain John Smith related how a certain Englishman, being restrained by Indian guards, was liberally splashed with his captors' blood when the dreaded musket balls struck and mortally wounded them.[18] In 1612 William Strachey explained why Powhatan fears were well founded. Although the Indians could mend wounds made by swords and arrows, "a compound wound . . . where . . . any rupture is, or bone broke, *such as our smale shott make amongst them*, they know not easely how to cure, and therefore languish in the misery of the payne thereof."[19]

The firearms used by the Jamestown colonists when Strachey wrote included shoulder arms of two varieties: the twenty-pound musket, which required a forked rest to support a four-foot barrel, and the lighter, more practical caliver (arquebuse, harquebuse), which did not require a supporting rest for its three-foot barrel. Both varieties fired a soft lead ball of an inch or more in diameter. Although the heavier musket was cumbersome, complicated to load, and often dangerous to fire, it was also more lethal; it could kill a fully armored European soldier at two hundred paces and one without armor at six hundred. The first shoulder arms in Virginia were matchlocks, which fired when a smoldering hemp fuse was touched to black powder in a firing pan, but these unreliable weapons were increasingly replaced between 1609 and 1625 with early varieties of flintlock muskets (*snaphaunces*, "English locks," and "dog locks").[20]

Aside from their respect for the killing potential of these firearms, the Powhatans had a compelling, culturally-based awe of such strange and powerful objects. The Powhatans' most important deity, Okee, was represented as a fearsome and vengeful god who would bring pain, punishment, terror, and death to the Indians if not appeased.[21] Okee-related religious rituals supported

the strict cultural and political unity that Powhatan, the Mamanatowick ("supreme chieftain") as well as the titular chief priest, maintained over the tidewater Virginia Algonquians in 1607.[22] When the English arrived at Jamestown, Powhatan had recently finished conquering/consolidating an extensive tribal region between Chesapeake Bay and the James River fall line and between the south bank of the James and the south bank of the Potomac River. This chiefdom, known as Tsenacommacah ("densely inhabited land"), contained some twelve thousand tribesmen loyal to Powhatan—at least half of all Algonquian speakers living in tidewater Virginia.[23] Allegiance to Powhatan and the worship of Okee fundamentally differentiated the chiefdom's member tribes from others in the region.[24]

Given their fear-based religious beliefs, the Powhatans reputedly had a great respect for, as Captain Smith related, "all things that were able to do them hurt beyond their prevention." Thus, they "adore[d] with their kind of divine worship" lightning, thunder, and most reverently after 1607, English cannon and muskets ("*pocosacks*").[25] One Powhatan werowance living near Jamestown reasoned that the English god "much exceeded" Okee's powers to the same extent that the colonists' "Gunnes did their Bowes and Arrows."[26]

Both the mystical/theoretical and physical/practical properties of firearms impressed the Powhatans, and their reactions to confrontations with muskets reflected a combination of fear and awe. Smith reported how some Indians "would not indure the sight of a gun," and he often bolstered the confidence of his troops by telling them that "if you dare but to stande to discharge your peeces, the very smoake will be sufficient to affright them."[27] In 1609, Smith related how several Powhatans were blown up by gunpowder while they were trying to dry it over a fire as did the soldiers at Jamestown. Other tribesmen standing nearby were severely burned in this accident, and "they had little pleasure to meddle anymore with powder." As Smith concluded: "These and many other such pretty Accidents so amazed and affrighted both *Powhatan*, and all his people, that from all parts with presents they desired peace."[28]

However, the Powhatans were not so easily discouraged or intimidated, and the Indians soon realized that it was imperative for them to procure muskets if they were to defend their homeland against the ever-increasing numbers of English invaders. As early as December 1607, Powhatan tried to persuade the colonists to

give him two 3,000-pound cannon, while according to Smith, the Indians intended to plant and harvest captured gunpowder "because they would be acquainted with the nature of that seede."[29] Powhatan's determination to acquire English arms was partially rewarded in early 1609, when several German laborers escaped from Jamestown and smuggled eight muskets, along with powder and shot, to the Indians.[30] Although this marked the beginning of the Anglo-Powhatan arms race in Virginia, the firearms in the Indians' possession were too few to upset the English military superiority.

By 1609 the Jamestown colonists had an impressive arsenal of 24 cannon, 300 pistols and muskets of many varieties (matchlocks, wheel-locks, and *snaphaunces*), sufficient ammunition, and more pikes, swords, and helmets than men.[31] In addition, the English constantly impressed the Powhatans with their military advantage by words and deeds. Smith told Powhatan of the "innumerable multitude" of King James I's ships, of the "terrible manner" of European combat, and how fighting "warres" were Englishmen's "chiefest pleasure."[32] Personally convinced of the "terrour" that firearms and his boasts had put in the "Savages hearts," Smith began a year-long policy of purposeful aggression and intimidation in September 1608. In his campaign to place Indians on the defensive and to force them to deliver food to the colonists, Smith bullied entire villages, took hostages at will, and on one occasion even aimed a loaded pistol at the chest of Opechancanough, chief of the Pamunkey tribe and the eventual successor to Powhatan. "Little dreaming anie durst in that manner [would] have used their king," Opechancanough's battle-tested warriors were given a startling, first-hand lesson in English militancy. Other Indians were "much affrighteth" by Smith's seemingly reckless aggression, and Powhatan finally came to believe that the colonists had come "to destroy my Cuntrie."[33] Even the non-Powhatan Manahoac tribe living west of the fall line had heard by 1609 that the English "were a people come from under the world, to take their world from them."[34]

The colonists effectively demonstrated their militant intentions and the superiority of their weapons when, between 1609 and 1614, several hundred well-armed and armored English soldiers wrested control of the James River from the Indians in the First Anglo-Powhatan War. In many brutal battles, Indian warriors were cut down by their enemies' muskets while their arrows were glancing off of English armor. Wounded in mind as well as body, the Pow-

hatans resorted to "exorcismes conjuracyons...charmes" and prayers to Okee in order "to plague the Tassantasses [strangers]" and to bring rains that would prevent the colonists from firing their matchlocks.[35]

The Indians used spiritual means in an effort to gain protection from the colonists' firearms, but they also continued to seek muskets for themselves. Several guns did fall into Indian hands during the war, and Powhatan warriors cherished them as "Monuments and Trophies" of English defeats.[36] Powhatan, especially, loved to collect and study the captured weapons, so much so that he steadfastly ignored the colonists' demands to return the arms, even after March 1613, when Pocahontas' release from her imprisonment at Jamestown was directly dependent upon his surrender of the muskets.[37]

Finally, though, in early 1614 the Powhatans were forced to agree to a humiliating peace after suffering considerable losses in men, territory, and pride to the Englishmen's terrible weapons of war. Although Pocahontas' captivity and conversion to English culture played some part in Powhatan's surrender, the Indians agreed to end the fighting only after the powerful and respected Pamunkeys—the strongest of all the tidewater tribes—were fiercely attacked in their once-impregnable villages near present-day West Point, Virginia. As individual tribes sued for peace and agreed to become dependent, tributary pawns of the colony, the victorious English confidently claimed that the defeated Powhatans were "not able to doe us hurt" in the future.[38] However, that self-assured assumption was soon contradicted by subsequent events.

As early as 1615, effective leadership of the tidewater tribes passed from the defeated and aged Powhatan to his talented, younger kinsman, Opechancanough, although the old chief remained the symbolic Mamanatowick until his death in 1618. Under Opechancanough's direction, many Powhatans succeeded in obtaining and learning to fire English muskets between 1615 and 1622, and this trend became an integral part of his plan to reassert the strength of Indian arms in the face of demoralizing defeat. Opechancanough skillfully manipulated colony leaders to procure the firearms he so desperately desired. His timing was perfect, for after 1616 Jamestown officials were under considerable pressure from the parent Virginia Company to convert and "civilize" the Powhatans. Opechancanough cunningly blocked English efforts to proselytize among his people unless the tribesmen were allowed to use muskets. Thus, ironically, firearms became one "bait to allure"

the Indians to accept and adopt English religion and customs, as well as one means to oust the invaders.[39]

By 1616-1617 Governor George Yeardley was allegedly allowing Powhatans to "become expert" marksmen, and he even appointed one Indian to lead a column of musketeers in parade maneuvers. This trend later became a scandal to Englishmen. In 1618 several colonists were killed by Indians using muskets, and in the following year, surviving evidence suggests that some eight or ten English musketeers, with all their arms, were victims of foul play.[40] While the colonists were "dispersed all about, planting tobacco," many Powhatans were becoming "as expert as any of the English" in the use of firearms and "had a great many in their custodie and possession" by 1620. A later investigation retroactively accused Capt. John Smith, Sir Thomas Dale, and four other Englishmen with teaching Powhatans the art of marksmanship and/or of supplying local Indians with firearms. More significant, several Powhatans—namely, Nemattanew ("Nemetenew"), Morassane, Shacrow (or Chacrow), Cooss (or Coss), Nanticos, and Kissacomas (a Chickahominy)—were explicitly identified in court records as having been expert marksmen in the colony's early history.[41]

Captain Smith, the experienced and cautious soldier, was dumbfounded at how the colonists could so foolishly allow the Indians —who "continually exercise their bow[s] and arrowes" and "hath beene taught the use of our armes"—to "dwell and live so familiarly amongst our men that practised little but the Spade."[42] To dramatize the seriousness of the situation, Yeardley's successor, Governor Samuel Argall, in May 1618 issued a proclamation forbidding any colonist from teaching an Indian to fire a musket, the penalty being death for both "learner and teacher."[43]

By that date, however, a militant momentum was gaining strength among the Powhatans. An influential war chief named Nemattanew, better known to the English as "Jack of the Feathers" because of his unusual attire, had arisen as a considerable threat to Jamestown. A mysterious and charismatic leader, Nemattanew wore religiously symbolic feathers as an Englishman would wear complete body armor, and his personality and special message had an important impact on Powhatan courage and confidence in arms. Nemattanew was personally well-acquainted with muskets, being an expert shot and a veteran of the First Anglo-Powhatan War, but it was his claims of immortality and invulnerability to English bullets that made him a significant Indian leader.[44] The Powhatans regarded Nemattanew as "shot-free, as he had per-

swaded them, having so long escaped so many dangers without any hurt."[45] Again, the timing was right, for between 1618 and 1622, "there was seldome or never a sword [used] and seldomer a peece [fired], except for a Deere or Fowle."[46]

Nemattanew seems to have organized a warrior cult that convinced other Powhatans that they, too, had nothing to fear from English firearms. George Wyatt of Kent, a military veteran, combat theorist, and the father of Sir Francis Wyatt (governor of Virginia, 1621-1626), commented on such a cult after he received confidential information from his son in the colony. The elder Wyatt was convinced that Nemattanew had instilled in his tribesmen a "strong perswation of an Ointment that could secuere them from our Shot"—an ideology of bullet-proofing that parallels later nativistic revitalization cults.[47] The colonists knew of, and had reason to fear, Nemattanew's influence, for by 1622, the Powhatans were culturally revitalized and militarily rejuvenated. In 1621 the English realized that the Indians were no longer impotent and demoralized, and they estimated that at least three hundred musketeers in full armor would be needed to assault Opechancanough's Pamunkey villages alone.[48]

In early March 1622, the fearful Jamestown leaders put Nemattanew's claims of immortality to a fatal test. When some colonists tried to capture the influential, illusive Powhatan war chief, he resisted them and was shot dead, amid circumstances that resembled a deliberate assassination. As Nemattanew lay dying, he requested his assailants to "not make it knowne hee was slain with a bullet . . . [and] to bury him among the English."[49]

If the colonists had hoped to defuse a potentially explosive situation by killing Nemattanew, their plan failed miserably. In death, the Indian leader assumed even greater importance than he had enjoyed in life. Opechancanough vowed to avenge his murder, and only two weeks after his death, an impressive tidewater Indian alliance suddenly and successfully attacked English settlements throughout Virginia in the famous uprising of March 22, 1622. So as not to arouse English suspicions, the main group of attackers arrived at the colonists' homesteads as unarmed traders, and having successfully infiltrated their settlements, killed them in hand-to-hand combat before they could reach their firearms. With Nemattanew's cult of invulnerability refuted, the Powhatans scrupulously avoided confrontations with murderous musket fire. Smith reported that the attackers "hurt not any that did either fight or stand upon their guard" and claimed that because of this the Pow-

hatans were a "naked and cowardly . . . people, who dare not stand the presenting of a staffe in manner of a peece, nor an uncharged peece in the hands of a woman."[50] However, the Indians were soon to disprove such biased assessments of cowardice.

The Powhatan Uprising, which claimed some 330 white victims in a single day, touched off a decade-long war.[51] This Second Anglo-Powhatan War (1622-1632) established the stereotype for later firearms-dominated frontier warfare. Smith was convinced that Opechancanough had launched his attack primarily to obtain English muskets, and the Indians did, indeed, find the spoils of combat rewarding. They not only captured arms and ammunition in the uprising, but exactly one year later, tribes in the Potomac River area acquired "peeces, swordes, armour, Coates of male, Powder, [and] shot" when they wiped out a 22-man English force under the command of Capt. Henry Spelman.[52] When, in September 1622, colonists attacked Opechancanough's villages, his warriors "lay[ed] in ambuscado, and as . . . [the English] marched, discharged some shot out of English peeces, and hurt some of them." Other Pamunkeys "shot with Arrows manfully / till bullets answered them."[53]

Such incidents greatly alarmed Jamestown officials, since Powhatans, armed and armored like the colonists, could "now steale upon us and wee Cannot know them from English, till it is too late."[54] In March 1623 a colonist lamented that "now the Rogues growe verie bold, and can use peeces . . . as well or better than an Englishman." The Powhatans, as many colonists reported, "dare mayntayne an open Warre . . . [and] beinge armed with our Weapons . . . can brave our countrymen at their verie doors."[55] The tremors of fear were felt in London, too, and in November 1622, King James I belatedly issued a proclamation against trading "warlike weapons" to the Indians.[56]

In Virginia, the English stereotype of the cowardly and childlike "savage" who only played at war was, after 1622, replaced by the colonists' grudging respect for Powhatan warriors. Opechancanough was widely referred to as the "Great generall of the Savages" —and with good reason.[57] In addition to the September 1622 ambush of English troops, the Indians launched other equally successful attacks.

In March 1622/23 several hundred Patawomeke warriors, after having wiped out Captain Spelman's force and captured their arms, confidently rowed some sixty canoes into the Potomac River and boldly assaulted the pinnace *Tiger*—an unprecedented act of

daring. The sailors on board narrowly escaped by discharging ordnance and hurriedly hoisting sails. Never again could Englishmen smugly contend that their armed vessels were "a continuall terror to the Natives."[58]

On land the Powhatans were most impressive when, in autumn 1624, they assembled an intertribal force of some eight hundred warriors and fought colonial musketeers in a fierce, two-day battle in open field. In this unusually largescale engagement, Opechancanough's Pamunkeys withstood withering musket fire to defend their villages, vital maize fields, and their "reputatione with the rest of the Salvages" (which included Patuxents and other unidentified "Northerne nationes" that had sent observers to the battle). Circumstantial evidence suggests that at least some of the Pamunkeys used muskets during the fighting, for sixteen (26 per cent) of the English militiamen (presumably encased in armor as usual) were reported as casualties. The native warriors fought so heroically that even Governor Wyatt had to admit that this battle "shewed what the Indyans could doe. The Indyans were never knowne to shew soe greate resolutione."[59]

As the Indian war continued in Virginia, old preconceptions were discredited and outmoded tactics and weapons were replaced. In August 1622 the Virginia Company directors reflected the by then-obsolete attitudes of armchair bureaucrats when they forbade the shipping of English longbows and metal-tipped arrows to Virginia for fear that the Powhatans would capture them and learn how to make more lethal arrows.[60] What the directors in London failed to realize, however, was that such weapons of the past would not suffice for either side in the Second Anglo-Powhatan War. Already by 1624 the musket was considered the only proper weapon for use in New World warfare, and musketeers replaced pikemen as the basis of infantry companies in Virginia several years before a similar change came in English armies.[61]

The muskets, themselves, became modernized in American service well before they were on the European Continent, as early forms of flintlock firearms, more efficient and reliable than matchlock muskets, achieved wide use in Virginia during the Indian war. Half the muskets sent to the colony in May 1618 were equipped with "snapphammers," and in February 1623 one Virginia planter "altered. . .Lockes" on all twelve of his muskets before shipping them from London.[62] By 1625 there were a mere 57 of the old-fashioned matchlocks inventoried in Virginia, compared to over 900 flintlock and other types of firearms then in the colony.[63] But

despite the colonists' recognition of the obvious superiority of flintlock weapons, European armies continued to rely on matchlock arms until almost the eighteenth century. In the light of the military sophistication of both the colonists and the Powhatans after 1622, it was ironic that the Virginia Company sent arms to Virginia, which, "though they were altogether unfitt, and of no use for moderne [i.e., European] Service, might nevertheless be serviceable against that naked people."[64]

However, those "naked people" proved to be able adversaries, indeed. By 1625, when fighting in the colony slackened, the English had come to regard the Powhatans with caution and respect. For almost three full years, Governor Wyatt and his able commanders "used their uttermost and Christian endeavours in prosequtinge revenge against the bloody Salvadges," but in 1625, the colonists, tired of their twice-annual campaigns, had "worne owt the Skarrs of the Massacre."[65] Not surprisingly, the decline in English fortitude and resolve coincided exactly with the near-total depletion of their gunpowder. The Indians were still militarily strong, and colony officials believed that if the Powhatans knew how short of supplies the English were "they might easily in one day destroy all our people."[66] English dominance over the Indians was not achieved until the late 1620s, and they triumphed then only because of reenforcement and resupply from England, coupled with an almost certain decline in Powhatan population, food and gunpowder reserves, and number of serviceable muskets.

Throughout British America, the problem of well-armed and aggressive Indian forces brought fear and dismay to the colonists, but it was a trend not easily reversed. King James's 1622 proclamation against trading in firearms, for instance, did not deter the Dutch or rebellious English traders like Thomas Morton of "Merrymount," who continued to supply his Indian friends with muskets, thereby planting the seeds of paranoia in the good soil of the Puritan "Eden."[67] As in Virginia, Indians in Massachusetts quickly overcame their initial fear of muskets to become dangerous adversaries. So threatening was this development that Governor Bradford even entertained the possibility of abandoning the Plymouth colony, "for we shall be beaten with our own arms if we abide."[68]

If Indians in New England and Virginia proved deadly adversaries using English arms in the seventeenth-century, why did they fail to drive the colonists from their shores? Even though Native Americans possessed the requisite bravery, resolve, and skill with

foreign weapons, it was physically impossible for them to combat a deadly, invisible ally of the English—the Europeans' "secret weapon" of imported disease. Strange and dreaded microbes, for which Indians had no defense, accompanied the strange and deadly muskets to America, and epidemic diseases quickly and radically reduced the numerical superiority of aboriginal peoples. If armed Indians *temporarily* made the colonists fearful, the so-called "marvelous accident" of mercilous epidemics *ultimately* made the Europeans confident and victorious.[69]

Throughout English America, it invariably "pleased God" to kill off threatening native populations "with a great sickness." At Roanoke shortly after the arrival of the English, Indians "began to die very fast . . . in short space . . . and . . . very manie in respect of their numbers."[70] The tribes of southern New England suffered an estimated 75 per cent decline in their populations between 1616 and 1619 alone, owing to their contacts with European smallpox and bubonic plague.[71] After 1620 Governor Bradford callously and confidently described how Indians afflicted with smallpox always "die[d] like rotten sheep" and "rot[ted] above ground for want of burial,"[72] while in Virginia, large numbers of Powhatans died from "very contagious" epidemics in 1617 and again in the "Torride sommer" of 1619.[73] Smallpox, measles, and influenza struck hard at the immunologically-defenseless Indians in the seventeenth century and became the white man's biological aces-in-the hole for the next two centuries. Wherever Anglo-American encountered Native American, once-numerous tribes were decimated, and the white invaders congratulated themselves on such a "marvelous accident."[74]

Bullets and bacteria were intimately connected in the first decades of English colonization in America, and the Roanoke tribes even believed that the terrifying muskets fired "invisible bullets" of disease, which "killed the people" in ways more frightening than lead shot.[75] While the Indians' adoption of English technology and tactics could have potentially ruined the early seventeenth-century colonies, imported diseases in the end prevented Native Americans from doing so. European muskets and European microbes were introduced into the New World at the same time, and it was a cruel twist of fate that the Indians' success with the former was negated by their disastrous susceptibility to the latter. Although the microbe ultimately proved more important than the musket for assuring the future of English colonies, the Powhatans'

effective use of firearms and their valiant, futile struggle to defend their Virginia homeland remains a significant, if neglected, dimension of the Native American heritage.

NOTES

1. William Bradford, *Of Plymouth Plantation 1620-1647*, ed. Samuel Eliot Morison (New York, 1970), pp. 207-208.

2. Francis Jennings, *The Invasion of America: Indians, Colonialism, and the Cant of Conquest* (Chapel Hill, N.C., 1975), pp. 165-67.

3. See Nancy O. Lurie, "Indian Cultural Adjustment to European Civilization," in James Morton Smith, ed., *Seventeenth-Century America* (Chapel Hill, 1957), pp. 33-62, and J. Frederick Fausz, "The Powhatan Uprising of 1622: A Historical Study of Ethnocentrism and Cultural Conflict" (Ph.D. diss., College of William and Mary, 1977), chaps. 4, 6, passim.

4. Jennings, *Invasion of America*, pp. 165-67; Keith F. Otterbein, "Why the Iroquois Won: An Analysis of Iroquois Military Tactics," *Ethnohistory* 2 (1964): 59.

5. Capt. John Smith, *A Map of Virginia. With a Description of the Countrey, the commodities, people, government, and religion* (Oxford, 1612), p. 27.

6. When Champlain and his Algonquin allies engaged Iroquois warriors in battle in 1609, it was French musketeers—not Indians—who fired from the cover of trees. See the engraving in Champlain, *Les Voyages faits au Grand Fleuve Sainct-Laurens, par le sieur de Champlain, depuis l'annee 1608 jusques en 1612*, Book II (Paris, 1613). In April, 1608, Smith spent a week training 60 Englishmen at Jamestown "to march, fight, and scirmish in the woods," and he rated a handful of guerilla fighters more capable of repulsing Indian attacks than an entire garrison within a fortress. Smith, *A True Relation of such occurrences and accidents of noate as hath hapned in Virginia*. . .(London, 1608), $E1^{v}$.

7. Humfrey Barwick, *A Breefe Discourse Concerning the force and effect of all manual weapons of fire*. . .(London, 1594?), $C1^{r}$, p. 17; Louis LeRoy (fl. 1570s) quoted in Fredi Chiappelli, ed., *First Images of America* (Berkeley, Calif., 1976), II: 525; George Abbott, *A Briefe Description of the Whole World* (London, 1600), $C2^{r}$.

8. David Beers Quinn, ed., *The Roanoke Voyages, 1584-1590*, Hakluyt Society (London, 1955), I: 130, 130n.

9. Harriott, *Briefe and true report of the new found land of Virginia* (1590), quoted in *ibid.*, I: 371.

10. On Powhatan population figures, see Fausz, "Powhatan Uprising of 1622," 60n, Table II.2, Appendix A.

11. "Instructions. . .for the intended Voyage to Virginia. . .(1606), in Philip L. Barbour, ed., *The Jamestown Voyages Under the First Charter, 1606-1609*, Hakluyt Society (Cambridge, 1969), I: 52.

12. *Ibid.*, I: 95, 97-98; Smith, *True Relation*, $A4^{v}$; Smith, *Generall Historie of Virginia, New-England, and the Summer Isles* (London, 1624), p. 42.

13. [Gabriel Archer?], "A Relatyon of...our River..." (1607), in Barbour, ed., *Jamestown Voyages*, I: 95.

14. *Ibid.*, I: 95-97; Smith, *Generall Historie of Virginia*, p. 42.

15. *[Archer?], "Relatyon,"* in Barbour, ed., *Jamestown Voyages*, I: 96.

16. *Ibid.*

17. A good Powhatan bowman reputedly could hit a small target 40 yards away, and the range-at-random of their arrows was some 120 yards. Smith, *Map of Virginia*, p. 24.

18. Smith, *Generall Historie of Virginia*, pp. 62, 85; [Archer?], "Relatyon," in Barbour, ed., *Jamestown Voyages*, I: 91.

19. William Strachey, *The Historie of Travell Into Virginia Britania* (1612), ed. Louis B. Wright and Virginia Freund, Hakluyt Society (London, 1953), pp. 105, 110 (my emphasis).

20. Harold L. Peterson, *Arms and Armor in Colonial America, 1526-1783* (Harrisburg, Pa., 1956), p. 14 and *passim*; Geoffrey and Angela Parker, *European Soldiers, 1550-1650* (Cambridge, 1977), p. 19; Robert M. Utley and Wilcomb E. Washburn, *The American Heritage History of the Indian Wars* (New York, 1977), p. 54; Fausz, "Powhatan Uprising of 1622," pp. 220-22.

21. Smith, *Map of Virginia*, p. 29; Strachey, *Virginia Britania*, ed. Wright and Freund, pp. 88-89; Fausz, "Powhatan Uprising," pp. 79-82.

22. Strachey, *Virginia Britania*, ed. Wright and Freund, p. 56; Fausz, "Powhatan Uprising," p. 84.

23. Christian F. Feest, "Powhatan: A Study in Political Organization," *Wiener Volkerkundliche Mitteilungen* 13 (1966): 69-83; Fausz, "Powhatan Uprising," pp. 59-79; Strachey, *Virginia Britania*, ed. Wright and Freund, p. 37.

24. Fausz, "Powhatan Uprising," pp. 79, 87-90, 118-19.

25. Smith, *Map of Virginia*, p. 29; Strachey, *Virginia Britania*, ed. Wright and Freund, p. 197.

26. Smith, *Map of Virginia*, p. 34.

27. [William Symonds, comp.], *Proceedings of the English Colonie in Virginia* (Oxford, 1612), pp. 68, 80.

28. *Ibid.*, p. 85.

29. Smith, *Generall Historie of Virginia*, pp. 48-49; [Symonds, comp.], *Proceedings*, p. 49.

30. [Symonds, comp.], *Proceedings*, p. 66.

31. *Ibid.*, p. 93.

32. *Ibid.*, p. 62; Smith, *True Relation*, $C2^{r}$-$C2^{v}$.

33. [Symonds, comp.], *Proceedings*, pp. 61, 69. Smith told the Powhatan leaders that those Indians who were true friends had nothing to fear from the colonists, for "by the advantage we have by our armes...[if] we intended you anie hurt, long ere this wee coulde have effected it" (*Ibid.*, p. 62).

34. Smith, *Generall Historie of Virginia*, p. 63.

35. George Percy, "A Trewe Relacyon...of Virginia from...1609 untill... 1612," in *Tyler's Quarterly Historical and Genealogical Magazine* 3 (1922): 277. On the war in general, see Fausz, "Powhatan Uprising," pp. 267-85.

36. Ralph Hamor, *A True Discourse of the Present Estate of Virginia...* (London, 1615), pp. 6, 55.

37. *Ibid.*, pp. 6, 8.

38. *Ibid.*, pp. 13-14, 54-55.

39. Fausz, "Powhatan Uprising," pp. 321-24; Smith, *Generall Historie of Virginia*, p. 143; Susan Myra Kingsbury, ed., *Records of the Virginia Company of London* (Washington, D.C., 1933), III: 128-29, 147.

40. Smith, *Generall Historie of Virginia*, pp. 121, 123; Kingsbury, ed., *Virginia Company Records*, III: 228.

Recalling this, or a similar, incident, Robert Poole, an experienced Indian interpreter and trader, reported:

> . . .in Sir Samuel Argalls tyme [between May 1617 and April 1619] there was 6 men slayne by the Indyans and their peeces powder and shoot [sic] caried to Pomunkey where they were used by An Indyan Called Morassane and Another Indyan Caled Nemetenew[.]. . .Sir George Yardley after he cam to be Governor [after April 18, 1619] ymployed. . .[me] to [go] to Pomunkey to steele A wye the feathers of the locks of those peeces, that therby they becominge unservicable Apochankano [Opechancanough] might send them to him to mend and he resolved to keepe them, which peeces afterwards were sent and they were kept.

(Court Minutes, Nov. 1, 1624, in H. R. McIlwaine, ed., *Minutes of the Council and General Court of Colonial Virginia, 1622-32/1670-76* (Richmond, 1915), p. 28.)

41. Court Minutes, Nov. 1, 1624, in McIlwaine, ed., *Minutes of Council*, p. 28.

42. Smith, *Generall Historie of Virginia*, pp. 123, 139.

43. Kingsbury, ed., *Virginia Company Records*, III: 93.

44. Smith, *Generall Historie of Virginia*, pp. 144, 151; Robert Beverley, *History and Present State of Virginia*, ed. Louis B. Wright (Chapel Hill, 1947), pp. 52-53; J. Frederick Fausz and Jon Kukla, "A Letter of Advice to the Governor of Virginia, 1624," *William and Mary Quarterly* 3d Ser. 34 (1977): 108-9nn, 117.

45. Smith, *Generall Historie of Virginia*, p. 151.

46. *Ibid.*, p. 144.

47. Fausz and Kukla, "Letter of Advice," p. 117.

48. Governor and council to Virginia Company, Kingsbury, ed., *Virginia Company Records*, IV: 12.

49. Smith, *Generall Historie of Virginia*, p. 144.

50. *Ibid.*, pp. 145, 147.

51. See Fausz, "Powhatan Uprising," chap. 5 and Appendix B for an analysis of mortality figures, traditionally but erroneously stated as 347 English dead. [Edward Waterhouse], *A Declaration of the State of the Colony and. . .a Relation of the Barbarous Massacre* (London, 1622) is the standard contemporary source for the uprising. See J. Frederick Fausz, "The 'Barbarous Massacre' Reconsidered: The Powhatan Uprising of 1622 and the Historians," *Explorations in Ethnic Studies* 1 (Jan. 1978): 37-51.

52. Smith, *Generall Historie of Virginia*, p. 236; Kingsbury, ed., *Virginia Company Records*, IV: 61.

53. Smith, *Generall Historie of Virginia*, p. 158; [Anon.], "Good Newes from Virginia" (broadside, ca. 1623), in *William and Mary Quarterly* 3d Ser. 5 (1948): 354.

54. Kingsbury, ed., *Virginia Company Records*, IV: 61.

55. *Ibid.*, pp. 61, 147.

56. Broadside proclamation of 6 Nov. 1622, Virginia Colonial Records Project (microfilm M-176-1), Colonial Williamsburg Foundation Research Library.

57. "Good Newes from Virginia," p. 354.

58. Smith, *Generall Historie of Virginia*, pp. 158, 161.

59. Kingsbury, ed., *Virginia Company Records*, IV: 61, 89, 108, 507-08, 529.

60. *Ibid.*, II: 100.

61. Fausz and Kukla, "Letter of Advice," pp. 107, 120, 122; Richard A. Preston and Sydney F. Wise, *Men in Arms*, 2d ed. rev. (New York, 1970), pp. 107, 112.

62. Peterson, *Arms and Armor*, pp. 27-29, 49; Kingsbury, ed., *Virginia Company Records*, II: 510; III: 96.

63. Darret B. Rutman, "A Militant New World..." (Ph.D. diss., University of Virginia, 1960), p. 310.

64. *Acts of the Privy Council of England, Colonial Series, 1613-1680*, ed. W. L. Grant and James Munro (Hereford, 1908), I: Pt. I, 54; Preston and Wise, *Men in Arms*, p. 140.

65. H. R. McIlwaine, ed., *Journals of the House of Burgesses, 1619-1658/59* (Richmond, 1915), pp. 37-38; Kingsbury, ed., *Virginia Company Records*, IV: 508.

66. McIlwaine, ed., *Minutes of Council*, p. 151; Kingsbury, ed., *Virginia Company Records*, IV: 528.

67. Bradford, *Plymouth Plantation*, ed. Morison, pp. 204-210; Charles McLean Andrews, *The Colonial Period of American History*, 4 vols. (New Haven, 1934), I: 362-63; Richard Slotkin, *Regeneration Through Violence: The Mythology of the American Frontier, 1600-1860* (Middletown, CT., 1973), pp. 58-65.

68. Quoted in Alden T. Vaughan, *New England Frontier: Puritans and Indians, 1620-1675* (Boston, 1965), pp. 88, 91.

69. Harriot, *Briefe and true report*, in Quinn, ed., *Roanoke Voyages*, I: 379. See Jennings, *Invasion of America*, chap. 2 *passim*.

70. Harriot, *Briefe and true report*, in Quinn, ed., *Roanoke Voyages*, I: 378.

71. Neal Salisbury, "Continuity and Change Among the Tribes of Southern New England" (unpubl. typescript, 1977), p. 21.

72. Bradford, *Of Plymouth Plantation*, ed. Morison, pp. 270-71.

73. Kingsbury, ed., *Virginia Company Records*, III: 92, 220, 244, 246, 275, 310, 320.

74. See Alfred Crosby, "Virgin Soil Epidemics," *William and Mary Quarterly* 3d Ser. 33 (1976): 290, 298-99.

75. Harriot, *Briefe and true report*, in Quinn, ed., *Roanke Voyages*, I: 380.