

Our Roots Go Back to Roanoke: Investigating the Link between the Lost Colony and the Lumbee People of North Carolina

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WRITER'S COMMENT: While it's easy for me to sit down and write stories, writing scientific term papers is something I struggle with. Perhaps this is because I'm a "storyteller" and "storytelling" is usually not allowed in "scientific" writing. But while writing *this* paper, I couldn't resist throwing in a little bit of "storytelling" along with all the "scientific" stuff because I considered the plight of the Lost Colony an *unfinished story* in its own right. And since no one really knew what happened to the Lost Colonists of Roanoke, I decided to treat the paper's subject matter as a story best finished by science. I'd like to thank all my Anthropology professors here at UC Davis, including Dr. Bettinger, Dr. Boyd, Dr. Darwent, Dr. Harcourt, Dr. McHenry, Dr. Rodman, and my ANT 153 professor: Dr. David G. Smith, and those TAs I've had who were especially nice to me: Brianne Beisner, Stephanie Etting, and my ANT 153 TA: Brian Kemp. Thank you all for teaching this "storyteller" a little bit about the science of Anthropology. And a special thanks to Dr. Roy Kamada, my UWP 101 professor, for helping me realize that I'm a "storyteller." Thank you all!

—*Renee Danielle Singh*

INSTRUCTOR'S COMMENT: In ANT 153, Human Biological Variation, students explore patterns of genetic differences among human populations and their causes. One option for their term paper assignments is to focus on the geographic origin of a particular population that holds some significance to the student's background and/or experience. Few stories of origin/ancestry are more legendary in North America than those pertaining to the descendants of the "lost colony" of Roanoke Island and the ancestors of the Native American Lumbee tribe of North Carolina, the subject of Renee Singh's prize-winning essay. In what ranks among the top ten student essays I have read in my 29 years on the anthropology faculty at UCD, Ms. Singh draws upon genetic, linguistic, historical, even immunological, evidence to argue that, as recounted in local legend and folk mythology, the lost colonists intermarried with, and were absorbed by, the sixteenth-century ancestors of the Lumbee. She ends with the irony that the European ancestry of the Lumbee today is regarded as too high to warrant recognizing them as a tribal entity with consequential federal benefits. Her essay illustrates the growing importance of both the politics of ancestry and the influence of genetics on the perception and definition of self.

—*David Glenn Smith, Anthropology*

Introduction:¹

Something is Terribly Wrong . . .

IMAGINE yourself sailing across the warm waters of the Atlantic. It is a time free of airplanes and automobiles, and our great nation, which someday will lie just a few miles ahead of you, is still called the “New World.” You are on your way to an island off the coast of what will one day be called North Carolina, and you are anxious to see what a small group of colonists has accomplished since their arrival there three years ago. Yes, this is the age of colonization. This is the beginning of a nation.

As you draw closer to land, however, you get a strange feeling that something is terribly wrong. There are no fires burning on the island, no greeters waving, and an eerie silence fills the air. At once you cast your anchor and row ashore, hoping that perhaps you’ve reached the wrong island by mistake. Surely, this is not the island destined to be the first true settlement in the New World? Surely, this is not Roanoke?

As you step ashore, your worst fears are confirmed. Pots and other artifacts lay unused on the ground and the shelters show signs of neglect. Footprints and other marks are scattered about as well, but their makers are nowhere in sight. The colonists of Roanoke have vanished.



FOR OVER four hundred years, the fate of the lost colonists of Roanoke has remained a mystery. While there are many theories to date concerning what became of them, the most prevalent and well supported of them argues they were assimilated into the indigenous tribes of North Carolina (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). If that’s true, then the lost colonists of Roanoke may be “found” in their suspected descendants: the Lumbee People of North Carolina. By examining the historical, genetic, and linguistic evidence concerning the origins of the Lumbee, we might yet shed light on one of history’s greatest mysteries.

¹The historical references mentioned in the introductory narrative are featured in (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

Who Are the Lumbee People?

A SINGLE tribe of over 50,000 individuals constitutes the Lumbee People, who currently live in Robeson County, North Carolina (Blu, 1980; Bryant et al., 2005; Tobert, 2001). Historical records indicate that they have been living near Robeson County's Lumber River since the early 1700s, taking their tribal name from this body of water (Blu, 1980; Bryant et al., 2005; Tobert, 2001).

Many studies of the Lumbee characterize them as an eclectic tribe because their culture and biology have been highly influenced by non-native groups with whom the tribe has admixed (Blu, 1980; Bryant et al., 2005; Tobert, 2001). For example, unlike most traditional tribes, the Lumbee are followers of the Southern Baptist faith (Blu, 1980; Bryant et al., 2005; Tobert, 2001). They also speak a dialect often referred to as a "variety of English," and many do not know their tribe's native language, which is Siouan in origin (Blu, 1980; Bryant et al., 2005; Tobert, 2001). Additionally, many of the Lumbee exhibit physical characteristics such as blond hair and blue eyes (Blu, 1980; Bryant et al., 2005).

How could this have happened? Traditionally, most Native American groups have not been known to admix with outside parties. Indeed, the federal government discourages it by denying benefits to those who practice admixture (Blu, 1980; Bryant et al., 2005). However, the Lumbee People are not alone in this respect. Other Native American tribes have also mixed with outsiders.

Admixture and Native American Groups:

The Catawba Indian Example

THE CATAWBA Indians were a group of Native Americans living just outside Rock Hill, South Carolina (Pollitzer et al., 1967). In 1962, they opted to terminate their reservation status, thus relinquishing all forms of federal recognition (Pollitzer et al., 1967). Apparently, reservation life no longer met the needs of their newly acquired Mormon lifestyle (Pollitzer et al., 1967). Around the same time, the Catawba allowed outside parties to study their blood types. Over 100 Catawba were typed for the ABO blood groups (Pollitzer et al., 1967). Physical features such as stature, cephalic index, facial index, and nasal index were also measured, and the data were studied

in order to better understand their current genetic composition (Pollitzer et al., 1967). In other words, a study was conducted to see whether modern day Catawba Indians were biologically more “white” or “Native American.”

Despite centuries of admixing, however, a modern Catawba Indian was found to be, on average, 50% white and 50% Native American in genetic composition (Pollitzer et al., 1967). The results of the study surprised many who expected the percentage of white genetic attributes to be much higher (Pollitzer et al., 1967). Like the Lumbee, the Catawba were a non-traditional tribe. They practiced a non-native religion (Mormonism), abandoned their original Siouan dialect, and exhibited physical features which made some of them indistinguishable from Caucasians (Pollitzer et al., 1967). Yet genetic data indicated they were still 50% Native American (Pollitzer et al., 1967).

The example of the Catawba Indians highlights the dangers of rushing to conclusions about a group’s origins and biology based solely on their culture or physical features. The origins and biology of the Lumbee people can not be studied, therefore, by merely observing modern day members and associating them with whatever group they most closely resemble culturally and physically. To understand who the Lumbee People are today and who they came from, we must go back to the beginning. We must go back to Roanoke.

A Mystery in History:

The Story of the Lost Colony of Roanoke

TOWARDS the end of the 16th century, Europeans had begun to set up the first permanent settlement in the New World (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). One participant was none other than Sir Walter Raleigh, the explorer whom the capital of North Carolina is currently named after (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Raleigh had high hopes for the New World and, in June 1578, he was granted a patent by Queen Elizabeth I to explore and colonize North America. The patent would expire ten years after its issuance; thus, Raleigh had to move quickly

(Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). For the next nine years, Raleigh sent ships to and from the New World in search of a good spot to found the first settlement (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

One particular expedition, launched in 1584, located a small island off the coast of North Carolina by mistake, after its ship struck a shoal in the sea (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). The island was later called Roanoke Island (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). As a result of damage to their ship, the crew of about 100 men was forced to remain on the island, and a fort and other structures were erected as shelters (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). When a relief ship arrived to rescue the crew, 15 men stayed behind to protect Raleigh's claim to the New World (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

In 1587, with time running short, it was hastily agreed that the new settlement would be founded at Chesapeake Bay, Virginia (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). In July of that same year, a group of 117 men, women, and children embarked for the New World led by the Portuguese navigator Simon Fernandes (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). In addition to colonizing Chesapeake Bay, the colonists were also given instructions to stop by Roanoke Island and retrieve the 15 volunteers from the previous expedition (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

When the party arrived, however, on July 22, 1587, they found that all 15 men had vanished (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). It was later determined that the volunteer party had sailed back to England after losing six members during an Indian attack (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Despite this discouraging news, the colonists persisted with their plan to found the first new settlement (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Unfortunately, for reasons still not clearly understood, Fernandes was unable to deliver the colonists to

Chesapeake Bay and word reached England that the first settlement had been founded on Roanoke Island instead (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

During August 1587, the colony's governor, John White, was forced to return to England to obtain more supplies (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). The trip was supposed to take no more than three months, yet the arrival of the Spanish Armada prevented White from obtaining a ship for the journey back to Roanoke for three more years (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). In 1590, when White finally did return, he experienced a horrible fright (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). All 115 of the original colonists had vanished. Roanoke Island held nothing more than several unused pots and a few scattered footprints (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

Why would the colonists leave Roanoke? Why risk crossing paths with mainland natives, given what happened to the 15 volunteers who had fled before? And most importantly for our purposes, is there any evidence that they made contact with the indigenous groups of North Carolina?

Why Leave Roanoke?

RECENTLY, scientists from the University of Arkansas and the College of William and Mary discovered several individuals currently living in North Carolina whose roots go back to Roanoke (Stahle et al., 1998). According to Stahle et al., these individuals have been living in the region since the colonists first landed in 1587, and therefore might well be the only living "witnesses" to what occurred (Stahle et al., 1998).

Who are these "witnesses"? The ancient baldcypress trees (*Taxodium distichum*) of North Carolina.

Most trees generate a single ring within their trunks each time a year passes (Stahle et al., 1998). By counting the rings in a cross section of a tree's trunk, one can determine the age of the tree (Stahle et al., 1998). Doing so, Stahle et al. confirmed that the baldcypresses were present during the time of Roanoke (Stahle et al., 1998). Yet tree rings can also provide information on environ-

mental conditions (Stahle et al., 1998). For example, adequate water available throughout the year results in a wider ring (Stahle et al., 1998); during a drought, the annual ring will be significantly narrower (Stahle et al., 1998). Tree ring data collected from the baldcypress trees of North Carolina suggests that the period between 1587 and 1589 was one of the driest in the area in 800 years (Stahle et al., 1998). Such a severe drought probably led to poor health and poor crop quality on Roanoke Island, thus forcing the colonists to move to the mainland in search of food (Stahle et al., 1998). Yet the question remains: Do we have any evidence of early contact between colonists and Native Americans?

Crossing Paths:

Early Evidence of Contact between the Lost Colonists of Roanoke and Indigenous Peoples

AS IT TURNS OUT, historical records indicate that the lost colonists of Roanoke may have been harboring a dangerous virus: influenza. Mainly affecting the lungs, the influenza virus can easily be spread by simply coming into contact with infected individuals (Mires, 1994). Historians and biologists agree that the New World was free of the virus until the advent of Europeans during the late 16th century (Mires, 1994). In fact, recent documents found by archaeologists from the University of Minnesota indicate that an outbreak of influenza occurred on the mainland of North Carolina at about the same time we speculate the colonists left Roanoke Island (Mires, 1994). If the influenza virus was not present in the New World before the arrival of Europeans, and the only Europeans present in the area during the outbreak were those who arrived with the Roanoke expedition, then it is highly probable that the lost colonists of Roanoke made contact with the indigenous groups of North Carolina and served as vectors for the influenza disease (Mires, 1994).

That being said, we must now turn to a different question, one that has remained unanswered for over four hundred years: What happened to those lost colonists?

Tracing Tribes:

A Theory of What Happened to the Lost Colonists

CENTURIES ago, a group of natives known as the Eno inhabited North Carolina's wilderness (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Archaeological evidence indicates that the Eno were a copper-mining people whose culture centered around the metal (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). For example, numerous copper ornaments have been found at Eno sites dating back to the 16th century, ornaments probably used to decorate Eno houses (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). As a Siouan-speaking tribe, the Eno were allied with the Occaneechi and other less well-defined Siouan groups dispersed throughout North Carolina (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Historical records also suggest that the Eno participated in a slave trading market open to their fellow Siouan allies (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

Yet historians believe the Eno's copper-based lifestyle was threatened after they lost several tribal members to an influenza epidemic in the late 16th century (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Copper mining is not easy, requiring strong individuals to extract the metal sheets from rock formations (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Historians therefore hypothesize that the Eno captured all 115 of the lost colonists, keeping the men to work the copper mines and selling the women and children to other Siouan-speaking groups involved in the slave market (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Indeed, these other Siouan tribes would have been eager to obtain the lost women and children from Roanoke since their numbers would also have been reduced by the recent influenza epidemic (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). Eventually, the Roanoke women and children would have been assimilated into these other Siouan-speaking tribes (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985).

All of this begs the question as to whether the Lumbee People are descendants of the lost colonists of Roanoke. Answering that question requires that we look not only at the historical evidence, but at the genetic and linguistic evidence as well.

Are the Lumbee People Descendants of the Lost Colonists of Roanoke?

Historical Clues

UNFORTUNATELY, seventeenth-century tribal records for the Eno, the Occaneechi, and the other Siouan-speaking groups of North Carolina are scarce, so these groups cannot be traced directly to the Lumbee People (Kupperman, 1984; Kupperman, 1985; Oberg, 1994; Miller, 2002; Quinn, 1985). However, a document dated 1725 does identify four Siouan-speaking groups living near a river called the “Drowning River” in North Carolina (Blu, 1980). Today the “Drowning River” is known as the “Lumber River,” and tribal records for the Lumbee, which begin in the 1700s, show that the four Siouan-speaking groups are, in fact, the earliest documented ancestors of the Lumbee People (Blu, 1980).

Genetic Clues

DURING THE late 1970s, the Lumbee People were typed for the Human leukocyte antigen (HLA) system in an attempt by Grier et al. to create an HLA profile for the tribe (Grier et al., 1979). The HLA system is a group of genes that codes for antigens on the surfaces of cells and is part of a complex known as the human major histocompatibility complex (MHC) (Grier et al., 1979). Scientists use the prefix “HLA” followed by a letter and a number to indicate the allele and HLA locus that is being studied (Grier et al., 1979).

Researchers note that most Native American groups have a high frequency of HLA-B40 (Grier et al., 1979). However, Grier et al. found that the Lumbee People have an unusually *low* frequency of HLA-B40 (Grier et al., 1979). This fact, along with other inconsistencies in the Lumbee HLA profile, indicate that admixture, specifically with European groups, has affected the current genetic composition of the Lumbee (Grier et al., 1979).

Linguistic Clues

ALTHOUGH they originated in part from a Siouan-speaking tribe, modern Lumbee People speak a modified form of English (Tobert, 2001). A linguistic study conducted by Benjamin Torbert from Duke University included a consonant cluster analysis of Lumbee speech. A consonant cluster is a group of consonants not separated by a vowel (Tobert, 2001). For example, in the word “spring,” the “spr-“ group would be classified as a consonant cluster (Tobert, 2001).

Torbert compared the Lumbee dialect with that of other Native American groups in the region and found that, unlike most Native American tribes in North Carolina, the Lumbee speak a dialect that is saturated with consonant clusters (Tobert, 2001). Thus, ancestors of the Lumbee People seem to have adopted consonant clusters after mixing with the lost colonists of Roanoke—whose own language, like that of most Europeans, included the frequent use of consonant clusters (Tobert, 2001).

Lumbee Origins and the Study of Human Variation:

Ethnicity vs. Biological Origins

UNFORTUNATELY, we may never know for certain what became of the lost colonists of Roanoke. However, we do know that there is evidence to suggest that the Lumbee People of North Carolina may be their modern day descendants. As a result, the Lumbee People currently face a dilemma regarding the issue of racial classification (Blu, 1980; Bryant et al., 2005). Unlike most native peoples in the United States, the Lumbee People have never been placed on a reservation, and thus have never been federally recognized as a Native American group (Blu, 1980; Bryant et al., 2005). They do not receive the same federal benefits as other indigenous groups in the country, a fact reflected in their poor health and living standards (Beltrane et al., 1979; Bryant et al., 2004; Humphrey et al., 1982). Simply put, they are a people with a confused identity (Blu, 1980; Bryant et al., 2005). The Lumbee believe that they are Native Americans and would like to be considered as such, but the federal government has denied their requests for federal recognition (Blu, 1980; Bryant et al., 2005). Stating the Lumbee have “too open an enrollment policy,” the federal government cites centuries of

admixture which have significantly compromised the Lumbee identity as a tribe (Blu, 1980; Bryant et al., 2005).

Is the federal government correct to assert that the Lumbee are no longer “Native Americans”? Recall that the Catawba Indians of South Carolina were very similar to the Lumbee people in that they, too, frequently admixed throughout their history and did not look or act very Native American anymore (Blu, 1980; Bryant et al., 2005). Unlike the Lumbee, however, the Catawba Indians *were* granted federal recognition even before they proved, genetically, that they were still 50% Native American (Pollitzer et al., 1967). Just how “Native American” does one have to be?

Conclusion:

Something is Still Terribly Wrong . . .

STEPS SHOULD be taken to answer the question concerning the origins of the Lumbee once and for all. The HLA profile study, conducted during the late 1970s by Grier et al., for example, is the only genetic study of the Lumbee to date. Modern mitochondrial DNA and possibly Y-chromosome DNA studies should be completed in order to further clarify the *biological* identity of the Lumbee tribe. At the same time, steps must also be taken to protect the Lumbee People’s *ethnic* identity. Recent cultural studies point out the high occurrence of alcoholism and suicide among the Lumbee as a result of their continuing identity crisis (Beltrane et al., 1979; Bryant et al., 2004; Humphrey et al., 1982). Just as John White found upon his belated return to the deserted colony over 400 years ago, something is terribly wrong. We must ensure that the Lumbee People do not share the fate of the colonists who disappeared from that infamous island off the coast of North Carolina: the island of Roanoke.

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