Nok Sculptures
by Kira Jones

Geographical Area and Settlements
The geological strata of the Nok habitation area is generally made up of four layers. The first, a grey colored topsoil, extends to a depth of approximately 50 centimeters before encountering a mustard yellow layer, 80 centimeters deep, with traces of charcoal and a high oxide content. Beneath this is a loose layer of red earth that frequently contains the terra-cotta shards. This has various depths but terminates in bedrock. The different pigmentation in these layers has been known to color the figures differently as well.\(^1\) This, combined with geological events that can spread pieces of a single figure over a wide area, has led to problems with reconstruction and forgery detection.

The area of distribution for the Nok figures extends roughly from Kagara in western Nigeria to Katsina Ala in the south, approximately 76,800 square kilometers, or eight percent of Nigeria as a whole.\(^2\)

Discovery and Initial Investigations
The tin mining settlements of the Jos plateau were first responsible for the discovery of the Nok terra-cottas, in particular one operation adjacent to the village of Nok. The first was found in 1928 by one Colonel J. Dent Young, co-owner of the local mining operation. Colonel Young rescued this small terra-cotta head (identified by him and others as a monkey) from the tin-bearing gravel that was being processed and brought it to the nearby mining museum at Jos. In 1943, the director of the Geological Survey of Nigeria reported to a young Bernard Fagg, who was at the time a cadet administrative officer with known interest and experience in archaeology, that a second head from the Jemaa area had been found. Fagg, recognizing the stylistic similarities between the two pieces and their potential archaeological value, promptly set about educating the local mining operations as to the importance of these figures and convincing them to report any further findings they might make. By 1952, a new national museum had opened in Jos to house the Nok figures.\(^3\)

The first three archaeological campaigns were conducted by Bernard Fagg at Taruga between 1961 and January of 1968. In addition to numerous terra-cotta figurines, Fagg also unearthed iron tools, domestic pottery, and smelting furnaces.\(^4\) The building of the Kainji Dam in 1966-67 brought to light two other sites near the Yelwa village in Sokoto Province, which yielded figures that followed the Nok style but were less well made.\(^5\) A fourth site, Samun Dukiya, was later excavated by Fagg’s daughter Angela. As the only habitation site within the Nok region proper at that time, Samun Dukiya represented an important archaeological milestone in the study of Nok culture and yielded terra-cotta figurines, stone implements, and iron tools.\(^6\) J. F. Jemkur briefly excavated another site between 1982 and 1983 about twenty-five miles southwest of Jemaa, at the abandoned village of Old Zankan, where he found various Nok fragments on the surface and the remains of an abandoned shrine. Since 2005, the Goethe University of Frankfurt has been conducting excavations in the Nok region and displayed their findings in two recent exhibitions in Frankfurt and Nigeria. None of the excavations thus far have indicated that the Nok statues were used in a funerary context, although a number of them appear to have been ritually destroyed and/or associated with shrines.
Composition and Manufacture
Nearly all of the Nok sculptures are hollow, most with walls less than a centimeter thick, with only a few of the smallest figurines being solid. The matrix of clay itself tends to be heavy in mica, granite, or large grains of quartz, which lends itself to a quick and easy firing process. The trunk of the figures can be made using a coiling process, whereby coils of moist clay were added successively to a base and then squeezed or 'welded' together with the fingers to form a thin, even wall. Hair, beads, and other surface ornaments were made and added separately. Some artists also sculpted the head as a separate, solid piece which was luted on to the hollow torso. The pieces were finished with a slip of ochre or mica schist and then burnished with a smooth pebble or stone to achieve a fine, uniform surface.

Larger figures could be built with an interior wooden support structure that held up the torso with a large central strut, while lateral branches stabilized the head and limbs. This structure was carbonized during firing, although some traces remain in the larger figures and have been examined using carbon-14 dating in conjunction with thermoluminescence tests of the terra-cotta itself.

Forgeries
Apart from varied surface colors and different findspots making it difficult to determine if fragments belong together, there are a number of issues concerning Nok forgeries. The individuality that is inherent in the Nok style makes determining authenticity on the basis of style alone difficult, if not impossible. Those consistent elements, such as the shape of the eyes or the proportions of the figure as a whole, are just as available to the counterfeiters for study as the connoisseurs.

Although some fakes are simply poorly made and easy to spot, a number are of quite high quality and not only use local clay from the Nok region (thus ensuring a similar makeup and appearance) but also the same crafting methods that the ancient inhabitants of Nok employed for the originals. A third type of forgery is that which uses ancient fragments that do not belong together but have been altered in such a way as to fit with each other and form a complete figure. The surface can then be covered with a slip to smooth over the fracture lines and sold to a dealer. An example is the seated male statue examined by Mark Rasmussen, whose counterfeit state was undetected until the figure was scanned, and the fragmented nature of the piece revealed. Any thermoluminescent testing done on the figure would date the fragments as ancient (since they technically are), without revealing that they have been artificially attached to each other. The vast majority of figures are found by farmers and other local inhabitants who either discover Nok sculpture in their fields or during expeditions made for the express purpose of finding things to sell to out-of-country dealers. No records are kept for these finds, which makes authentication by archaeological provenance difficult.

Style
The vast majority of Nok sculpture is of humans, ninety percent of which are free-standing. These are often seated on a stool, standing on a circular pedestal, or kneeling. They can range from 10 centimeters in height to 37 centimeters (the largest being a 37-centimeters-tall head which may have been attached to a larger body. Proportionally these figures could have been well over 120 centimeters high). These representations tend to follow the general African trend of proportions which prefers the head larger
than normal in relation to the body (for example, a ratio of one to three or four parts instead of one to seven or eight). Although the sculptures are remarkable for their individuality, they share certain characteristic features that distinguish the Nok style from later African art. The eyes are outlined and semicircular or triangular in shape with pierced pupils. The nostrils, mouth, and ears are likewise pierced, and most figures exhibit elaborate coiffure and ornamentation. Clothing was often represented in the form of penis sheaths or loincloths for the males, aprons of beaded strands and woven cloth for the females, and occasionally animal pelts. The consistency of these artistic conventions, which appear to have been largely unchanged throughout the settlements in question for a period of over a thousand years, indicates a centralized notion of identity which the Nok people had settled on.

Bernard de Grunne’s iconographic study of a large corpus of Nok figures established three basic poses, with various subcategories within each. The first of these, standing figures, represented about forty percent of the sculptures he studied and could be further broken down into groups of females with arms folded along the body; males with a scepter in the left hand and right along the length of the torso or in reverse; males with a raised right arm and left along the torso; and males with right arm folded over the torso and the left placed over the stomach. Sitting figures represented another forty percent of his test pool and could be divided into groups that sat with hands crossed on knees and had their head resting on their hands; rested their head on the bent right knee or left knee; or were simply seated with head held upright. The third group, those statues who knelt, were either resting on the left leg with the right bent against the torso or the left bent with the right against the torso. Of those statues which were preserved well enough to permit gender identification, about two thirds were male. De Grunne also hypothesized that certain gestures, such as kneeling with bent knee, were largely restricted to males, while standing seemed associated with female statues.

High Sculpture and Comparisons
While the High Museum of Art’s sculpture is not identical to any other Nok piece, various elements share similarities with other works. The following is a brief description of each of these various elements as they appear in the High sculpture, along with a discussion of similar occurrences elsewhere.

Hairstyle
The bulk of the hair consists of a cap with regular, thumb-size indentations that sits high on the forehead and just above the figure’s ears (fig. 1). There is no hair visible on the forehead; however, a series of rectangular locks extends from the back to approximately the base of the skull. The hair is gathered into four separate locks or braids just before each ear that jut out in a triangular shape from the side of the head and obscure the ears when viewed from the front. A tassel dangles down behind the figure’s left ear but is not repeated on the right side (fig. 2).

This distinctive coiffure finds its closest parallel in a head from Cleveland, dated 600 BCE-250 CE (fig. 3). The Cleveland head replicates both the cap with its regular indentations, the triangular braids on either side of the head, and the line of rectangular locks at the back of the neck. Notable differences are the size and finish of the cap indentations, which are larger here and have an incised circle in the center (fig. 4), as well as the level of preserved detail on the hair itself. It is unclear whether a longer, indistinct line of clay
behind the left ear was meant as a tassel. Other examples include a head from a private collection in Germany and a torso from a private collection in France that incorporate the same triangular braids and indented cap.

**Facial Hair and Features**
The High sculpture has a roughly ovoid head with a narrow chin and large, almond-shaped eyes (fig. 5). The upper eyelids are incised with double lines in a half circle, while the lower lid is delineated with a single incised line. The pupils are indicated with complete perforations through to the interior, as are the nostrils and mouth. The figure’s nose is flat and broad with a deeply incised philtrum and alae, along with two protrusions on either side which may represent either ornamentation or facial hair. A short, jutting beard has been added just below the lower lip, replacing the chin and delineating the face from the neck.
Fig. 5. *Bust*, Nok Artist, Nigeria, ca. 1000 BCE, terra-cotta, 18 x 8 x 9 inches, High Museum of Art, gift of the Robert Rubin Collection of African Art, 43.2013. Photos by Michael McKelvey/courtesy High Museum of Art.

Fig. 6. *Male Figure*, 200–300 BCE, terra-cotta, 28 inches. Ryann Willis Collection, Mémoire d’Afrique, Nok: 3269.

Fig. 7. *Bust*, Nok Artist, Nigeria, ca. 1000 BCE, terra-cotta, 18 x 8 x 9 inches, High Museum of Art, gift of the Robert Rubin Collection of African Art, 43.2013. Photos by Michael McKelvey/courtesy High Museum of Art.

Fig. 8. *Bust*, Nok Artist, Nigeria, ca. 1000 BCE, terra-cotta, 18 x 8 x 9 inches, High Museum of Art, gift of the Robert Rubin Collection of African Art, 43.2013. Photos by Michael McKelvey/courtesy High Museum of Art.

Fig. 9. *Male Figure*, Africa, Northern Nigeria, Nok Culture, ca. 195 BCE-205 CE, terra-cotta, 19 ½ x 8¾ x 6¾ inches, Kimbell Art Museum, Fort Worth, AP 1996.03.

Fig. 10. *Bust*, Nok Artist, Nigeria, ca. 1000 BCE, terra-cotta, 18 x 8 x 9 inches, High Museum of Art, gift of the Robert Rubin Collection of African Art, 43.2013. Photos by Michael McKelvey/courtesy High Museum of Art.
The eyes and perforations are typical of the Nok artistic conventions and can be found almost universally throughout the style. While the overall shape of the head does not conform to the elongated form often found in seated male statues, it does find a close parallel in one terra-cotta figure from the Ryann Willis Collection (fig. 6). Although this example has low-relief eyebrows and a more open mouth, the facial hair and overall shape are quite similar.

**Ornamentation**
Apart from the elaborate coiffure and tassel mentioned above, the High figure is adorned with a large amount of jewelry. Five broad beaded cords drape around the upper torso from the top of the shoulder down to the breast line (fig. 7). A sixth cord sports a large pendant bead. Below and apparently behind these larger cords are finer vertical looped strands of beads which support a large amulet composed of six sections roughly the same size as the bead on the sixth cord mentioned above. The base of the sculpture features a plain band, perhaps a belt or the top section of a loincloth.

The figure also has a spotted animal pelt tied at the front around its neck. Although stylized, the rough shape of a pelt can be seen draping down the sculpture’s back, along with a horn which may be supported by a diagonal length of bound cords extending from the left breast under the arm (fig. 8). The surviving arm has two series of stacked rings, one just above the wrist and the other just above the elbow. The hand itself is held close to the body and would have held a separate object, such as a crook, flail, or scepter.

The High figure shares a number of these accessories with a Nok figure at the Kimbell Museum (fig. 9). The Kimbell piece not only bears a horn on his back but wears a similar arrangement of beaded necklaces and an amulet that, while simpler, is also close to that of the High figure. Although the Kimbell does not have a visible animal pelt, this accessory is found in other Nok figures. Occasionally animal features can be incorporated into the anatomy of the sculptures, as in a head with a beak in place of the mouth or one with fangs and a spotted feline nose.  

**Pose**
The Nok figure is depicted upright and facing frontally, with the surviving arm bent at the elbow and held close against the torso (fig. 10). This position fits well with de Grunne’s Ib category, where standing male figures hold scepters in their left hand and hold the right arm along the torso. A seated position is ruled out by the elaborate jewelry which extends all the way to the preserved base of the figure. However, the figure could also have been kneeling. The pose is echoed quite closely by the Kimbell piece, mentioned above, which is also quite close in anatomy and ornamentation.

**Physical Examination with Normal and Ultraviolet Light**
Physical examination of the piece in normal light revealed a relatively consistent thickness throughout the torso with no signs of significant repairs. The head had been stuffed with newspaper as a cushion for the mount, which was easily removed. The interior of the piece revealed circular striations consistent with the coiling method known to have been utilized by the Nok people in crafting their sculptures (fig. 11). Plant material was observed in the nostrils and in various crevices on the surface, where it had presumably been worked into the matrix of the clay or had grown prior to excavation. The clay itself was
Fig. 11. Interior view of High Museum Nok figure showing coil construction. Photo by the author.

Fig. 12. CT scan of High Museum Nok figure. Courtesy of Grady Health System Imaging Department, Atlanta, and High Museum of Art, Atlanta.
The Nok sculpture was then examined with the use of a black light to confirm the absence of significant repairs with modern adhesives, which would fluoresce when exposed to ultraviolet light. No such adhesives were found, and the only fluorescing materials were dust particles and the plant fibers mentioned above.

**Computed Tomography Scan Results**
Computed tomography (CT) scans use X-ray images to create cross-sectional and three-dimensional images of an object. This allows one to see inside an object without using invasive methods. When the physical examination showed no signs of reconstruction, it was thought that the High sculpture may have been a pastiche of unrelated ancient fragments which were pieced together into a complete sculpture and then covered with a slip so as to create a uniform surface.

It was decided that a CT scan would be the least invasive method of investigating this possibility, and so on July 16, 2014, in partnership with Dr. John Malko and Dr. Jack Fountain, the scan was performed at Grady Memorial Hospital in Atlanta, Georgia. As pictured here, the piece showed a remarkably uniform thickness throughout, with no signs of disparate fragments being connected artificially (fig. 12). Inclusions throughout the clay were likewise uniform, with a slight decrease in density towards the top of the piece. The slight fractures inside around the neck were also visible on the scan but did not extend all the way through to the outside. The only anomaly was the presence of an unknown substance in the crown of the head and left arm cavity, which may be either plant matter or sediment that collected in the piece before it was unearthed. In short, the CT scan revealed that the High piece was a remarkably intact sculpture that had not been significantly tampered with but did not rule out the possibility that the piece was a completely modern forgery made using ancient techniques.

**Thermoluminescence Testing**
Thermoluminescence (TL) testing was first introduced to archaeology in the 1960s as an alternative to radiocarbon dating. Whereas radiocarbon tests require organic material, which is fragile and not always present in archaeological contexts, TL tests rely on certain minerals found in objects subjected to a heat of at least 500 degrees Celsius (such as terra-cotta). Minerals such as feldspar and quartz build up energy naturally over the course of time but lose it, or luminesce, during processes such as firing. Since the minerals begin storing energy at a constant rate once again after firing, subjecting them to further intense heat and measuring the light emitted can give an approximate date of when that last firing was, and thence the age of the piece. The process does have a fairly high (five to twenty percent) error margin, however, and is an inherently destructive process as it requires core samples be taken from the piece in question.

Physical examination of the High terra-cotta revealed a series of drilled holes indicating that a thermoluminescence test had been performed at some point in the past; however, the results of this test were not included with the piece and have not been able to be located. Due to the ambiguous results of less invasive tests (CT scan, physical examination), it was decided to retest the High sculpture. Samples were taken in January of 2015 and sent to the Oxford Authentication Laboratory to determine the age and authenticity of the piece. In May 2015, the test results revealed that the last
firing of the Nok sculpture took place between 1400 and 2500 years ago, dating the sculpture to c. 485 BCE-415 CE.

**Conclusion**

Stylistically, the High piece fits well into the Nok genre. It shares significant similarities in anatomy, craftsmanship, and material with other authentic examples while at the same time exhibiting the individuality so characteristic of Nok sculptures. All tests have shown it to be an intact example with no odd fragments or extensive modern reconstruction. Finally, the TL test placed the date of last firing firmly within the known chronological range of the Nok culture. Although divorced from its archaeological context, all of the evidence examined here points to the High piece being an authentic example of Nok sculpture.

—Kira Jones, Emory University, Andrew W. Mellon Foundation Graduate Fellowship Program in Object-Centered Curatorial Research, 2014

**Bibliography**


Notes


8 B. Fagg, Nok Terracottas.

9 A. Fagg 1990: 21 [SOURCE NOT IN BIB]


14 H: 38.20 cm, w: 20 cm. 1995.21.

15 Human head with elaborate hair style and beak. Excavation 2013, Pangwari E. (De Grunne 2014: 204); Male head with fangs and hood. Excavation 2013, Pangwari E. (De Grunne 2014: 203) [SOURCES NOT IN BIB].

16 Both the plant material and the fragility of the clay were noted during the restoration of the Daji Gwana sculpture by Birgit Frohreich (Peter Breunig, Nok: African Sculpture in Archaeological Context (Frankfurt: Goethe-Universität, Africa Magna Verlag, 2014), 239-45. She notes that the red color and fragility of the piece are likely due to a firing temperature between 600 and 900 degrees Celsius.

17 Multiple samples are required and should be taken from different, unexposed areas of the piece in order to minimize the error. For these reasons it is not as popular a procedure as it once was.