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Gods as Custodians: Sacralisation and the Survival of Ironworking Heritage in Nsukka Cultural Zone, Nigeria

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Abstract

Iron smelting is extinct in most parts of Nigeria, including the Nsukka cultural zone, leaving behind slag, furnace remains, tuyere fragments, and ore-mining pits. Many former smelting locations have been destroyed by farming, housing and road construction, market expansion, and erosion. Yet some relics have survived. This study examines whether religious beliefs and practices associated with the god of iron and related shrines have contributed to the preservation of early ironworking sites in the Nsukka area. Using an ethnoarchaeological approach involving archaeological survey and reconnaissance, oral interviews, and participant observation, the study compares nine early ironworking sites: Lejja, Umundu, Owerre-Elu, Orba, Idoha, Obimo, Opi, Onyohor, and Ekwegbe, with in-depth focus on Otobo Ugwu Dunoka Square, Lejja and Odinanso Square, Opi. Findings show that sacralisation – attribution of sacredness, taboos, custodianship, and communal ownership – restricts removal of slag and regulates movement and maintenance within sacred squares and shrines, thereby preserving archaeological signatures. In non-sacralised locations, the same classes of relics have been bulldozed, reused for construction and erosion control, or reclaimed for farms and buildings. The study concludes that religion has functioned as an informal heritage-management system, but that it is vulnerable to urbanization, religious change, and natural degradation and therefore needs to be integrated with formal protection.

Keywords: Disappearing archaeology, Cultural heritage preservation, Iron smelting, Sacralisation, Nsukka, Nigeria

Introduction

Archaeology depends on the survival of material traces, yet in tropical environments such as southeastern Nigeria organic materials rarely survive for long in the soil matrix. The most durable signatures are inorganic: lithics, fired clay, and metals. As a result, archaeological evidence disappears rapidly, and archaeologists must draw on resilient forms of evidence, including living belief systems and practices that protect places and objects over generations.

Large-scale iron smelting was widespread in precolonial Igboland, with regional variation in technique. Pit, bowl, dome, and shaft furnaces have been reported at Aku, Oghe, Awka, Nkwere, Ugwu Ogu-Ututu, Abakaliki, Nwofe, and Abiriba (Chikwendu, 2002). In northern Igboland, the Nsukka area, numerous early smelting sites have been identified at Lejja, Umundu, Orba, Opi, Owerre-Elu, Idoha, Aku, Onyohor, Ekwegbe, Obimo, Nru, Ede-Oballa, and Eha-Alumona (Anozie, 1979, 1980; Okafor, 1984; Ikechukwu, 1988; Ezike, 1998; Itanyi, 2013; Uzuegbu, 2020). Smelting is now extinct in the area, leaving slag, furnace walls, tuyere, and mining pits as principal signatures (Anozie, 1979; Ameje, 2008).

Among Yoruba and Igbo ironworkers, belief in a god of iron remains potent, especially among blacksmiths. Shrines were erected near working areas. In the study area the deity



bears different names by community – for example, Okoro-Udume at Ede-Oballa, Ekwensu-Uzu at Orba, Chikere Aguru at Aku and Ukehe, and Ashene at Umundu (Uzuegbu & Agbo, 2024) – but with a shared understanding of efficacy, authority, and sanctions for violation, including misfortune, illness, crop failure, or death (Agu & Opata, 2012). Smelters observed rituals and ethical codes believed to be dictated by deities, which may have incidentally regulated the treatment of slag and workshop debris.

In recent decades many smelting locations have been wholly or partly destroyed by farming, housing, road and bridge construction, and by erosion and climatic pressures. Yet some remains have withstood these pressures. This study asks: has the presence of the god of iron and associated shrines within defunct smelting sites contributed to the preservation of early iron-smelting relics in the Nsukka cultural zone? Its aim is to examine the influence of religious beliefs on preservation and to draw implications for the survival of archaeology in the area.

Literature Review: Early Iron Smelting in the Nsukka Area

Early research on Nsukka ironworking, undertaken when Igbo archaeology was incipient, focused on dating and furnace typology. Anozie (1979), Okpoko (1989), Okafor (1984, 1992, 1995), Okafor and Phillips (1992), Ezike (1998), Eze-Uzomaka (2009), Itanyi (2013), Uzuegbu et al. (2025), and Daniels et al. (2021) investigated sites at Orba, Umundu, Idoha, Opi, Lejja, Owere-Elu, Aku, Ukehe, Ekwegbe, Obimo, and Ede-Oballa, producing important radiocarbon determinations (Okafor, 1992; Eze-Uzomaka, 2009).

Okafor (1992) proposed three phases: an early phase characterized by cylindrical slag, dated ca. 765 cal BCE–75 cal CE; a middle phase with flat, ropy-surfaced slag, ca. 810–1435 cal CE; and a late phase with mainly aggregate slag, ca. 1430–1950 cal CE. More recently, charcoal from Ezi-Amugwu, Ukehe yielded dates of ca. 1440–1635 cal CE (Kenechukwu et al., 2021; Daniels et al., 2022).

On furnace type, Anozie (1979, 1980) attributed pit or bowl furnaces to Lejja and Umundu, Okafor (1992) identified shaft furnaces at Orba and Opi, and Ekechukwu (1988, 1989) described a dome furnace producing aggregate slag at Idoha. Itanyi (2013) argued for combined use of pit, dome, and shaft furnaces in the area, noting co-occurrence of cylindrical and aggregate slag at Obimo, Ekwegbe, and parts of Ukehe. Recent work has extended beyond technology to paleoenvironment and food production (Ngonadi, 2020, 2023; Daniels & Ibeanu, 2021), tourism potential (Okonkwo et al., 2018), indigenous knowledge (Uzuegbu et al., 2023; Anunobi et al., 2023), and archaeometric characterization of residues (Eze-Uzomaka et al., 2024; Ngonadi, 2024). The present study builds on this foundation by focusing on an under-examined factor: preservation through religion.

Theoretical Framework

The study is anchored in Durkheimian sacralisation theory, which holds that sacredness – the setting apart of persons, objects, and places – is the driving feature of religion (see Marshall, 2010). In African traditional religion, landscape features such as water bodies, trees, hills, and groves, as well as crafted objects, can be sacralised (Mbiti, 2015). Sacred status carries deep social implications for conduct, authority, and sanction (Lamothe, 1998; Zika, 1988; Caillois, 2001). Because African traditional religion has no single written scripture, sacred places, oral traditions, and practices become durable vehicles of memory across generations.

Applied here, sacralisation predicts that where slag heaps, furnaces, and workshop grounds are incorporated into sacred squares and shrines, they acquire socio-cultural, religious, and political value that motivates protection and regulated maintenance. Two squares – Otobo Ugwu Dunoka, Lejja and Odinanso, Opi – where slag, shrines, and ritual activity coincide, provide focal tests; the remaining seven sites allow comparative assessment of whether absence of sacralisation correlates with greater loss.

The Study Area

Nsukka here denotes the Nsukka cultural zone of northern Igboland (Abidogun, 2007), described as the arrowhead of the Igbo northward expansion into the Middle Belt savanna (Afigbo, 1981). The people share affinities in dialect, food, masquerade, marriage, and rites of passage (Agbo et al., 2022). The zone spans seven local government areas of Enugu State: Igbo-Etiti, Igbo-Eze North, Igbo-Eze South, Isi-Uzo, Nsukka, Uzo-Uwani, and Udenu (see Figure 1). It lies approximately between latitudes 6.55°N and 7.22°N, bounded by Igala communities to the northeast, Idoma to the north and northwest, and Ezeagu, Udi, and Nkanu to the south and southeast (Itanyi, 2013).

Most residents are subsistence farmers supplemented by trade and livestock rearing. Precolonial political organization was gerontocratic, as elsewhere in Igboland. Before Christian missionary activity, African traditional religion dominated. The Nsukka-Igbo acknowledge a supreme creator – Chukwu Okike, Chineke, or Chukwu Abiam Ama – approached through intermediaries including Anyanwu (sun), Amadioha (thunder and lightning), Chikere Aguru (iron), Ahajoku (fertility), Ala (earth goddess), and Ekwensu (warriors) (Uzuegbu & Agbo, 2024). Excavated potsherds from Obukpa Rockshelter, the University of Nigeria farm, and Lejja suggest occupation from ca. 2500 BCE (Hartle, 1967; Eze-Uzomaka, 2009).

The area lies at the northern end of the Nsukka-Udi-Okigwe cuesta (Ofomata, 1978), characterized by highlands, caves, and rockshelters. Geology comprises sandstone, sandy shale, dark shale, and minor coal. Vegetation is derived savanna with sparse forest, short trees, and economically useful grasses. Drainage includes the Adada River, Opi Lake, and springs at Asho, Ajie, Iyi-Nsukka, Ikwoka-Obimo, Efuru-Idoha, and Ukehe-Agu, among others.

Method

An ethnoarchaeological design was employed, combining archaeological survey and reconnaissance, oral interviews, and participant observation over approximately four months, supplemented by published and unpublished sources. Participants were purposively selected as persons knowledgeable about local environment and culture, including traditional rulers, chief priests and shrine custodians, women leaders, hunters, blacksmiths, retired civil servants, youth leaders, village elders, farmers, and artisans. Interviews were conversational and conducted with consent; restricted esoteric knowledge was excluded at custodians' direction.

Nine early ironworking sites were compared (see Table 1). Two squares with dense co-occurrence of slag and active shrines – Dunoka, Lejja and Odinanso, Opi – were documented in depth; seven others – Umundu, Owerre-Elu, Orba, Idoha, Obimo, Onyohor, and Ekwegbe – were recorded comparatively to assess variation in threats and survival. Observations focused on: (a) classes and disposition of relics; (b) shrines, sacred

features, taboos, and custodianship; and (c) visible human and natural impacts. Data were analyzed descriptively with photographic documentation. The study is qualitative and does not claim statistical representativeness; counts and areas cited from earlier surveys are reported as documented by those authors.

Ethical considerations included respect for sacred restrictions on movement, speech, and photography within squares and shrines. Descriptions of taboos, including those concerning menstruation, are reported as local proscriptions relayed by custodians and are not endorsed as normative judgments. Gendered language in oral accounts is attributed rather than adopted.

Findings

Table 1 (see end of manuscript) summarizes site conditions. Figures 1–12 are placeholders for the authors' map and photographs to be re-embedded at print resolution.

Focal Case 1: Ootobo Uguwu Dunoka Square, Lejja

Lejja lies about 14 km south of Nsukka town on high ground (ca. 500 m) in a broad valley draining via the Adada to the Anambra River (Anozie, 1979). The community comprises Ejuona, Uwani, and Akibite quarters. The smelting site was first brought to professional attention when archaeological technician Ben Ozomadu reported heavy cylindrical slag lumps at Ootobo Uguwu in Ejuona quarter; a University of Nigeria team led by Fred Anozie excavated two loci in 1980. About 800 blocks averaging 34–56 kg remain arranged as seats for meetings. Excavated pits were lined with 1–2 cm of clay. Subsequent studies have addressed dating, paleoclimate and food, metallography, intangible heritage, and GIS-based management (Opata & Apeh, 2016; Eze-Uzomaka et al., 2024; Ngonadi, 2024).

Dunoka is regarded locally as the most sacred public square in Lejja because it hosts Ojiroshi trees, Oshuru, Odegwo, Okiti Akpurigede Oshimiri, Uzo mma, Utu Udele Igwe, Oya Oguwu, Onu Adada, and Eze Mkpuma (Plates 1–4). Preservation is enacted through explicit proscriptions: for example, custodians report that menstruating women should not traverse certain parts of the square, and that violation requires appeasement of the Odegwo deity; strangers may not break kola or offer prayer within the square. Three Ojiroshi trees (*Newbouldia laevis*), interpreted as the three founding brothers of Lejja's quarters, stand at the entrance and are believed to have healing properties; a fallen tree is promptly replaced.

Okiti Akpurigede Oshimiri, the Omabe masquerade house shaped like a shaft furnace, is treated as the dwelling of the incarnate beings of Umu Inyanye Alanwauma and as a reminder that forebears smelted iron. It is described as a link between living and dead and as a former kitchen for smelters. Entry is restricted: women generally do not enter, though they may sit at its base during meetings, and only initiated post-menopausal associates (Oyima) are admitted. During Omabe festivals the masquerade emerges from the house, performs to music, and processes via Uzo mma — a dedicated pathway that bisects the slag arrangement — to the disused workshop, dramatizing smelting.

The Oshuru shrine (god of war) is an accumulated heap of cylindrical slag regarded as sacred and touchable only by Dunoka indigenes. It symbolizes vigilance. Its priest-custodian, the eldest man of Dunoka, keeps the ofo staff (*Detarium senegalense*) held communally for Lejja's 33 villages. Offerings must be locally produced — palm wine, red

palm oil, yam, and firewood of akpaka (*Pentaclethra macrophylla*), itself recalled as a charcoal wood – must be consumed within the square, must not touch the ground, and leftovers are deposited in a pit, never taken home.

Other features reinforce multifunctional sacredness: Oya Ogwu on the west side serves as antidote to poisoning and as an indigenous calendar for agriculture and ritual; Odegwo records births by sex-differentiated items (cock, alligator pepper, and kola for boys; fish, palm oil, and yellow ochre for girls) under the custody of the oldest man of Umulolo lineage; Adada shrine honors the ancestral mother associated with procreation, prosperity, and security and demands ritual purity; Utu-Udele-Igwe, marked by an ogbu tree (*Ficus* spp.) at the center, symbolizes peace, fairness, and justice and is recalled as a former execution site.

Despite this protection, erosion and flooding threaten the landscape. Runoff from Ugwu-Ukwo and Ugwu-Okpalla hills channels through the square, weakening soils, displacing small slag, exposing roots and foundations, abrading the Oshuru structure, and encouraging algal discoloration. Unfenced, uncontrolled foot traffic adds pressure. Local mitigation includes sand ridges and reuse of small slag to check rills, plus regular sweeping and weeding by married women to keep the abode of the deities clean – itself an act of sanctity maintenance.

Focal Case 2: Odinanso Square, Idi-Opi, Opi

Opi smelting sites were first surveyed by Okafor in 1983 at the customary court ground, Afor market, the foot of Ugwuorogo Hill, and Odinanso Square, Idi-Opi (Okafor, 1992; Ibeanu et al., 2019). Okafor (1992) estimated slag coverage of ca. 3,175 m² at the court, ca. 21,551 m² at Ugwuorogo, and ca. 4,779 m² at Afor market, with farming, road, and housing construction already identified as threats.

Revisit in the present study found that three of the four loci have been substantially altered: the court heap largely removed during rebuilding and fencing; Afor market slag evacuated for market, road, and farm expansion; and much of Ugwuorogo reclaimed for farming, roads, and housing. Only Odinanso remains substantially intact, a contrast custodians attribute to deification.

At Odinanso, block slag is arranged around uvuru trees (*Nauclea* spp.) as seats for meetings and rites. Shrines occupy distinct spots within and around the square, including the Omabe (Igbodimume) house where rites precede public performance, and Mkpume-di-Oke, Onu-Umuada, Eshuru Nwajodu, and Onuejunigbu Api (Plates 7–12). Shrines are marked by fowl feathers, cloth wrappers, clay pots, drink bottles, ritual staffs (*oji*), and animal skulls and bones, and structures are periodically maintained. Young women and girls sweep the square regularly. Crucially, removal of slag blocks is prohibited, preserving in situ arrangement and associated ritual assemblages.

Comparative Sites

Umundu, about 10 km northeast of Nsukka, was first excavated in 1976 under Anozie. Four loci were known: market square (baked clay, slag, furnace walls, ore), Community Secondary School, communal land, and a dump at Umumeri. The market locus has since been bulldozed and built over with stalls, offices, and telecommunication masts; school construction removed large quantities, with remnants reused for road paving and erosion

control; communal and Umumeri loci are now farms. Slag is widely reused as erosion check, foundation blocks, hunting missiles, road aggregate, and fencing. Only the Ashene shrine complex – honoring Ashene, said to have introduced smelting from Idah (Kogi State) – retains iron-related sacra, notably Ikpe rattling objects made by local blacksmiths and formerly used by masquerades. Umundu thus demonstrates that sacralisation of one shrine does not necessarily protect all workshop loci.

Owerre-Elu, within Nsukka town, was identified by Okafor in 1987 during clearance for the modern timber market (Plate 6). Central urban location, farming, housing, roads, land transactions, and heavy timber lorries, compounded by poor drainage and tree felling, have degraded the site. Slag is now scattered along roads, squares, and farms where erosion exposes it. Much of Okafor's excavated area is now farmland and residential-commercial plots; slag, shafts, and tuyere were destroyed during shop construction, and farmers heap hematite to ease cultivation. Surviving reverence centers on Iyi-Nsukka shrine, where relics termed Afuru Utu are curated. Local ignorance of the site's iron history further reduces concern, underscoring that knowledge transmission matters alongside belief.

At Orba, Ama-Orba smelted while Amube specialized in blacksmithing. Reconnaissance at Agu Ama-Orba dry valley (now farmland) and Ndiagu-Ndiuno recorded ore scatters, slag mounds, and a disused furnace; slag along Ohom road is reused for erosion control. A disused oval furnace of burnt clay (wall 3.5 cm thick, ca. 60 × 70 cm diameter) recorded in 2018 in Mr. Gabriel Eze's compound at Ama-Orba, full of slag, had been removed by April 2025 for rebuilding, as had an Amube dump. Few Amube smiths remain as youth pursue other livelihoods, and Western cultural influence has eroded the socio-religious role of the Eguru blacksmith clan. Yet Ifejioku (New Yam) rites involving sacrifice to farming and iron tools continue to curate ironworking memory.

Idoha was first reconnoitred by Itanyi in 1985, including Ozor Umueleke, and studied by Ekechukwu (1998) for slag, furnace walls, and tuyere. Uzuegbu et al. (2025) found earlier loci fully or partly destroyed by farming, housing, and road work, with in situ cylindrical slag removed for erosion control. Ozo-Ezike dump retains three slag mounds heaped by farmers clearing fields locally termed waste land; four large cylindrical blocks check erosion along its access road. Several slag pieces and four large in situ blocks line the road to the Efuru shrine. Custodians report that deification at Efuru, Odo-Ezike, and Ozor-Umu-Aleke prevented total clearance, illustrating shrine-centered survival amid farm-level displacement.

Obimo was first studied by Itanyi in April 2006. Amaelugwu Square yielded cylindrical slag comparable to Lejja, Umundu, Ekwegbe, and Onyohor, plus aggregate heaps, in situ cylindrical blocks, and burnt clay suggestive of furnace walls, including a broken tuyere nozzle ca. 5.8 cm long and ca. 14 cm in diameter, with ore, charcoal, and pottery. Notably, a tuyere fragment with in situ cylindrical slag in Mr. Richard Ugwoke's compound is deified and serves as a village meeting ground (otobo); deification is credited with its survival. At Ikwoka, aggregate slag along the square pathway was damaged during road construction.

Onyohor, ca. 20 km south of Nsukka, was excavated under Itanyi in 2001 following discovery of furnace-wall fragments, clay nozzles, and aggregate slag during cistern digging in Mr. Nichodemus Odo's compound, with further in situ slag in the compound of Igwe Mathew Utazi. Excavated materials included slag, potsherds, clay debris, ore, palm kernels, iron objects, and charcoal with burnt clay. Although in private compounds, loci survive

where debris was converted into shrines and worship places, notably Udule shrine. Informants observed that without such attachment the sites, unrecognized as significant, would have been demolished before documentation.

Ekwegbe (Etiti Ama-Ohu, Igbo-Etiti LGA), excavated in May 2002, yielded in situ cylindrical slag, baked clay, charcoal, palm kernels, pottery, and pear seeds. On revisit the cultivated area had been cleared of cylindrical slag except at Otobo-Etiti Ama-Ohu near Eke-Ekwegbe market along the old Nsukka–Enugu road, where blocks associated with a blacksmith effigy retain religious observance as Ama-Agru. Custodians hold that without this status the relics would long have been destroyed.

Discussion

Comparison supports sacralisation as a preservation mechanism but qualifies it. Where slag and furnaces are embedded in actively maintained sacred squares – Dunoka and Odinanso – four interlocking practices operate: (a) taboo and restriction of movement and touch (e.g., by stranger status, ritual purity, lineage membership); (b) custodianship by priests and elders holding ofo and shrine offices; (c) routine maintenance as devotion (sweeping, weeding, structural repair, offering rules); and (d) communal ownership vested in the square, reinforced by seating arrangements that make slag furniture for governance and ritual. Fear of sanctions – prolonged bleeding, death, illness, crop loss – and expectation of benefits – procreation, protection, justice, business success – give these rules force. Removal is therefore rare, and where disturbance occurs remnants of original layout survive.

Where sacralisation is absent, partial, or detached from workshop loci, identical relic classes are treated as resources or obstacles: bulldozed for markets, schools, courts, and timber sheds; mined for foundations, roads, and erosion checks; or heaped aside as farming impediments. Umundu is instructive: reverence for Ashene and Ikpe persists while market and school loci were obliterated, showing that shrine survival does not automatically equal site survival unless the shrine spatially coincides with the slag and its taboos govern that ground. Owerre-Elu and Orba further show how urban centrality, land value, loss of technical knowledge, youth occupational shift, and Christianization can outpace or erode custodial norms.

Natural agencies compound human pressures and also test sacred protection. At Dunoka, hill-slope runoff, flooding, algal growth, and open access degrade fabric despite prohibitions, indicating that spiritual sanctions regulate people more effectively than water. Indigenous responses – sand ridges, slag check-lines, sweeping – are apt but insufficient without drainage, fencing with controlled access, signage, and monitoring. Gendered proscriptions require sensitive management: they are effective for protection yet exclusionary; heritage planning should engage women's groups who already maintain squares while ensuring inclusive, non-coercive participation and avoiding stigmatizing language.

Theoretically, findings extend sacralisation beyond belief content to heritage practice: sacredness creates common property, assigns accountability, and routinizes care. However, desacralisation – through conversion, schooling, migration, and market logics – reverses these effects. Preservation therefore cannot rely on fear alone; it needs documentation, legal recognition of sacred squares as heritage sites, and community co-management that respects custodians' authority.

Conclusion and Recommendations

Did gods and religious beliefs influence preservation of iron-smelting relics in the Nsukka zone? Across nine sites, evidence indicates yes, probabilistically and conditionally. Dunoka-Lejja and Odinanso-Opi, with dense shrines, active ritual, and communal governance, retain in situ arrangements lost elsewhere. Owerre-Elu (Iyi-Nsukka/Afuru Utu), Umundu (Ashene/Ikpe), Orba (Ifejioku), Idoha (Efuru/Odo-Ezike/Ozor-Umu-Aleke), Obimo (deified tuyere/slag meeting ground), Onyohor (Udule), and Ekwegbe (Ama-Agru) each show shard survival where reverence attaches, and loss where it does not. Village-square location amplifies the effect by vesting common ownership and habitual assembly in the same ground as the slag.

We recommend: (1) formal documentation and gazetting of Dunoka and Odinanso squares and associated shrines as community heritage sites, with custodians as co-managers; (2) low-impact interventions – drainage, controlled pedestrian routes, reversible fencing, and interpretive signage – designed with priests, elders, and women’s maintenance groups; (3) rescue recording and selective preservation of threatened loci at Umundu, Owerre-Elu, Orba, and Ikwoka-Obimo before further construction; (4) integration of ironworking heritage into University of Nigeria field schools and primary-school curricula, and into tourism planning building on Okonkwo et al. (2018); (5) continued archaeometric and paleoenvironmental work on curated assemblages (Eze-Uzomaka et al., 2024) under community agreements; and (6) longitudinal monitoring of erosion and land-use change using GIS (cf. Opata & Apeh, 2016). Religion has kept archaeology alive where bulldozers have not reached; pairing its custodial logic with formal protection offers the best prospect for survival.

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Appendix: Tables and Figures

Table 1

Comparative Preservation Status of Nine Early Ironworking Sites in the Nsukka Cultural Zone

Site (LGA)	Relics documented	Shrine / sacred association	Main human threats observed	Natural threats	Current preservation
Lejja – Dunoka Sq. (Nsukka)	~800 cylindrical blocks; furnace pits; tuyere	Oshuru, Odegwo, Omabe house, Adada, etc.; active taboos + custodians	Uncontrolled foot traffic	Hill-slope runoff, flooding, algae	Substantially intact; in situ seating
Opi – Odinanso Sq. (Nsukka)	Block slag around trees; shrine assemblages	Omabe, Mkpume-di-Oke, Onu-Umuada, Eshuru Nwajodu; no-removal rule	– (other Opi loci lost)	Erosion exposure	Intact; other 3 Opi loci heavily altered
Umundu (Nsukka)	Baked clay, slag, furnace walls, ore; Ikpe objects	Ashene shrine (detached from market/school loci)	Market/school bulldozed; reuse for roads, blocks	–	Market/school loci destroyed; shrine objects curated
Owerre-Elu (Nsukka)	Scattered slag, shafts, tuyere; hematite heaps	Iyi-Nsukka / Afuru Utu	Timber market, housing, roads, land sales; lorries	Flooding, poor drainage	Excavated area largely built over
Orba (Udenu)	Ore scatters, slag mounds; oval furnace 60×70 cm (2018, now removed)	Eguru clan norms; Ifejioku rites	Farm clearance; compound rebuilding; youth exit	–	Furnace/dump removed by 2025; memory curated in festival
Idoha (Igbo-Etiti)	3 slag mounds; in situ cylindrical blocks; Efuru roadside slag	Efuru, Odo-Ezike, Ozor-Umu-Aleke (deified slag)	Farming, housing, roads; slag reuse for erosion	–	Partial; shrine-roadside slag survives
Obimo (Nsukka)	Cylindrical + aggregate slag; tuyere 5.8×14 cm; ore, charcoal	Deified tuyere + slag meeting ground (otobo)	Road construction	–	Compound locus preserved; Ikwoka path damaged
Onyohor (Nsukka)	Furnace walls, nozzles, aggregate slag, potsherds	Udule shrine	Cistern/compound digging; unrecognized significance	–	Preserved where shrine-converted
Ekwegbe (Igbo-Etiti)	In situ cylindrical slag, baked clay, charcoal	Otobo-Etiti Ama-Ohu / Ama-Agru + effigy	Cultivation clearance	–	Only sacred locus retains blocks

Note. Areas for Opi after Okafor (1992): court ca. 3,175 m², Ugwuorogo ca. 21,551 m², Afor market ca. 4,779 m². Lejja block weight 34–56 kg after Anozie (1979, 1980). Current status from authors' reconnaissance; see text for dates. Em dashes indicate not observed/recorded.

Figure 1. Map of the study area showing seven LGAs and nine sites.



Source credit; previously adapted from Ike Jonathan-Ezema.

Plates 1–12.



Plate 1: Dunoka Village square Lejja



Plate 2: *Akpurigedege Oshimiri* (masquerade house)



Plate 3: *Odegwoo* shrine



Plate 4: *Utu Udele-Igwe* shrine



Plate 5: *Ikpe*



Plate 6: Timber Market



Plate 7: Dunoka village square



Plate 8: *Eshuru Nwajodu* shrine



Plate 9: Igbodimeme (Omabe) shrine



Plate 10: *Onu-di-ishi* shrine



Plate 11: *Mkpumedike* shrine



Plate 12: *Onu-Umuada* shrine

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