



COLLECTIVELY NEGOTIATED URBANISM IN AWKA: A MORPHOLOGICAL AND INFRASTRUCTURAL READING OF A DISTRIBUTED ADMINISTRATIVE CITY

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Abstract

This paper analyses the urban fabric of Awka, the administrative capital of Anambra State, Nigeria, through the lens of collectively negotiated urbanism and self-organisation theory. Using sectional and axonometric drawings, street-based activity mapping, satellite imagery derived from Google Maps and Google Earth, OpenStreetMap vectors, and zone-specific morphological analysis informed by field observation, the study investigates how Awka's dispersed yet intensifying urban fabric emerges through the interaction of administrative planning, craft-based economies, infrastructural interventions, and incremental private development. The research identifies four primary urban conditions, the Government Residential Area and administrative core anchored by the Anambra State Government House, the education-driven residential commercial interface around Nnamdi Azikiwe University, the linear infrastructural corridor structured by the Enugu–Onitsha Expressway and its associated flyovers; and the dispersed low-density housing schemes that characterise the city's peripheral expansion. Each zone exhibits a distinct spatial logic, yet all remain interconnected through shared patterns of negotiation between mobility, trade, and habitation. Findings reveal that Awka's historical identity as a centre of blacksmithing persists through distributed micro-economies and workshop-based urbanism, while privately developed housing compounds produce a fragmented but legible territorial structure. The emergence of flyovers and roadside commercial clusters demonstrates how state-led interventions are rapidly appropriated and reconfigured by informal economic activity. The paper argues that Awka should not be read as a loosely planned administrative town but as a hybrid, self-organising urban system in which institutional order and informal adaptation operate simultaneously. Morphological interpretations are cross-validated through triangulation across satellite, vector, and field-observation sources. It positions Awka as an example of distributed, collectively produced spatial intelligence and everyday urban resilience rather than planning deficit.

Keywords: urban fabric, self-organisation, collective negotiation, administrative cities, informality, urban resilience, Awka, urban morphology.

1. Introduction: Framing Awka Beyond the “Administrative Town”

Awka occupies an unusual position within the Nigerian urban hierarchy. As the capital of Anambra State, it sits in the shadow of Onitsha, the much larger commercial entrepôt fifty kilometres to the west (Figure 1) and is frequently described in regional planning literature as a quieter, lower-density administrative town. This framing has produced an interpretive inertia in which Awka is read primarily through what it lacks, the mercantile intensity of Onitsha, the institutional gravity of Enugu, the planned coherence of Abuja. It is positioned as a derivative place, a minor capital with a diluted urban condition.

This paper argues that such a reading misrecognises the nature of Awka’s urbanism. Behind its apparent dispersal lies a distinctive organisational intelligence. Awka is produced through the continuous interaction of governance, infrastructure, education, craft economies, and incremental private development, each operating on its own temporal and spatial rhythm, and each leaving a legible trace in the urban fabric. What appears fragmented at first reading is, on closer inspection, a hybrid system in which institutional order and everyday practice negotiate the form of the city in parallel.

The research pursues three questions. First, what are the dominant morphological conditions that constitute Awka’s contemporary fabric? Second, how do formal and informal agents negotiate space at the scale of the street, the block, and the region? Third, what does Awka contribute to broader debates on African urbanism? By reframing Awka as a distributed, collectively negotiated system, the paper seeks to dislodge the planning-deficit narrative that often accompanies secondary African capitals and to propose a more generous analytical vocabulary, one grounded in morphology, infrastructure, and the observable intelligence of everyday urban practice.



Figure 1. Regional satellite reading of Awka, showing Nnamdi Azikiwe University, Tansi International College, Solution Fun City, and the expressway corridor.

Source: Google Earth, 2022

2. Theoretical Framework: Collective Negotiation and Self-Organisation

The analytical scaffolding of this study draws from three overlapping bodies of thought: urban morphology, informal urbanism, and self-organisation theory. Urban morphology, following the traditions of Conzen (1960) and Moudon (1997), provides the tools for reading the city as a sedimented record of decisions: streets, plots, and buildings understood as the material outcome of successive agents. Informal urbanism, as developed in the work of Roy (2005), Simone (2004), and Pieterse (2011), offers a vocabulary for describing the lived practices of appropriation, negotiation, and provisional construction that characterise much of the global South. Self-organisation theory, drawn from complexity studies and urban theorists such as Batty (2013), treats the city as an emergent system in which coherent patterns arise from the distributed actions of many actors without central command.

From these traditions the paper draws three operative concepts. Collective negotiation describes the ongoing, everyday bargaining between state actors, landowners, traders, commuters, and residents that shapes street edges, plot lines, and land-use adjacencies. Self-organisation describes the emergent spatial logics that arise without a single designing authority. Polycentric urbanism describes a condition in which multiple centres of activity, each with its own morphology, co-exist within a loosely integrated field.

Positioning Awka within this frame is a deliberate move. It refuses the binary of “planned” versus “unplanned”, proposing instead that Awka embodies a third condition, a genuinely hybrid model of spatial production in which administrative order and distributed adaptation are neither in conflict nor in hierarchy, but are mutually constitutive.

3. Methodology: Drawing as Analytical Instrument

The methodology proceeds from a conviction that drawing is not representation but analysis. Maps, sections, and axonometric projections are treated as instruments that produce knowledge about the city rather than merely depicting it. The study therefore integrates four primary data layers (Figure 2). First, Google Earth and Google Maps satellite imagery provide a high-resolution reading of built footprints, canopy cover, and open land. Second, OpenStreetMap vector data furnishes the base geometry of the street network and enables comparative overlay (Figure 3). Third, field-informed observation, pedestrian traversal, photographic documentation, and activity mapping, grounds the remote data in the rhythms of everyday use. Fourth, locally sourced landmarks, bus stops, and market thresholds calibrate the analytical drawings.

These inputs are translated into four analytical operations. Sectional analysis is used to expose vertical layering at infrastructural moments such as the Aroma flyover. Axonometric projection renders the relational structure of institutional clusters and junction-scale economies. Street activity mapping registers the distribution of kiosks, vendors, and transport nodes along linear corridors. Morphological zoning identifies and codifies the four principal conditions that structure the city.

Each representational choice, what is shown, what is suppressed, what is layered, constitutes an analytical claim. The drawings presented throughout this paper are thus arguments rendered in line, not images of arguments.

The remote and drawn analysis is grounded in field observation conducted across the 2024—2025 period through repeated transect walks along four purposively selected corridors, the central administrative axis from the Amawbia flyover to Aroma Junction, the Enugu—Onitsha Expressway frontage through the Aroma interchange, the university belt extending from UNIZIK through Ifite Awka and Okpuno, and a sample of peripheral compound clusters at the city's expanding edge. These corridors were selected not as a statistically representative sample but as a purposive, theory-led choice intended to capture the four morphological conditions the study sets out to characterise. Each corridor was traversed on foot on multiple occasions and at different times of day, so that weekday, weekend, and vacation rhythms could be registered, observations were recorded through photographic documentation, sketch sections, and activity notes. Morphological interpretations were then validated through triangulation, satellite footprints were cross-checked against OpenStreetMap vectors and against direct ground observation, and provisional zone boundaries were tested against repeated site visits and informal conversation with residents, traders, and transport operators. Where the three sources diverged, the drawn interpretation was revised to privilege the observed condition on the ground.



Figure 2. Multi-scalar data layering: regional context (Google Earth), vector road grid (OpenStreetMap), urban fabric and elevation (drone oblique), and major infrastructure hierarchy.

Source: Author, 2026.

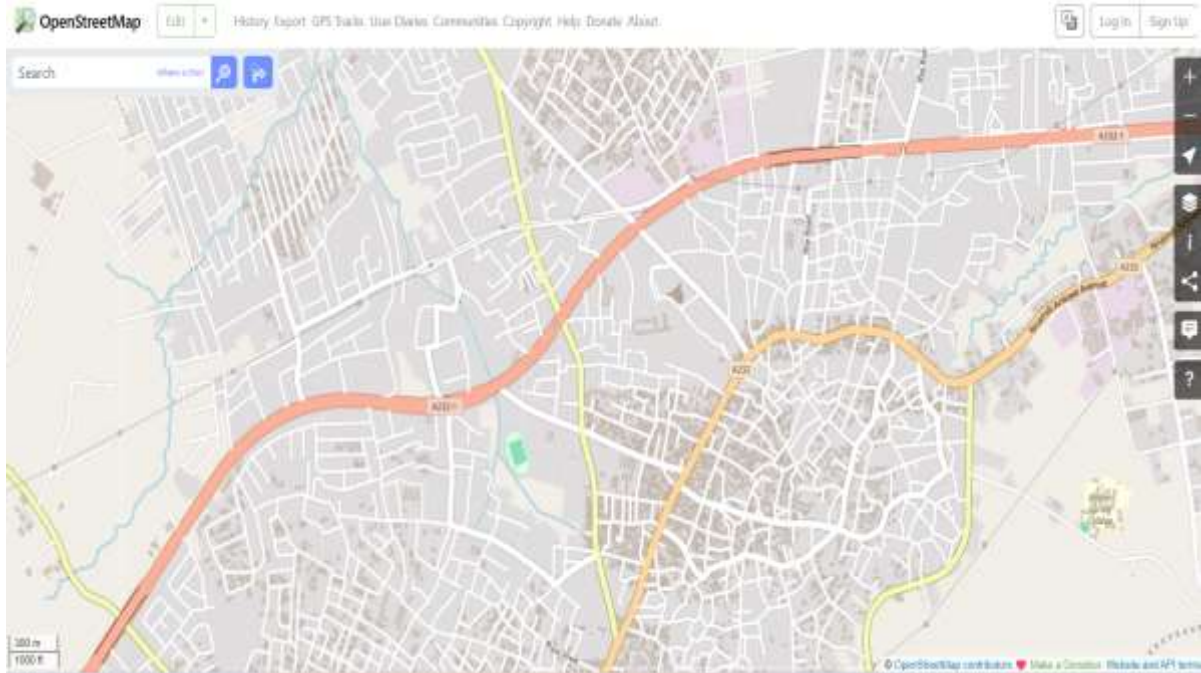


Figure 3. OpenStreetMap vector extraction of Awka's street network, showing the Enugu–Onitsha Expressway as regional spine and the finer-grained local grid radiating from it.

Source: Google Map, 2026.

4. Historical Substrate: Craft Urbanism and Early Spatial Logic

Awka's contemporary spatial intelligence cannot be understood without reference to its pre-colonial identity as a centre of Igbo blacksmithing and craft production (Afigbo, 1981; Basden, 1921). For generations, Awka smiths travelled widely across Igboland and beyond, producing agricultural implements, ceremonial objects, and metalwork that circulated through an extensive trade network. Production was not concentrated in a single industrial quarter but distributed across family compounds and lineage clusters, with trade routes radiating outward toward neighbouring settlements. This distributed pattern established two lasting traits of the urban substrate. First, the city developed a networked rather than centralised economic geometry, multiple loci of production and exchange connected by paths of movement. Second, craft knowledge was embedded in domestic space, meaning that the workshop, the compound, and the street were never sharply separated.

Traces of this logic persist (Figure 4). The contemporary proliferation of roadside workshops, welders, mechanics, vulcanisers, furniture makers, continues the morphological habit of integrating production into the residential and infrastructural fabric. The blacksmith has become the roadside artisan, but the underlying spatial grammar is recognisably continuous. Craft urbanism, in this sense, is not a relic but an active substrate upon which subsequent administrative, infrastructural, and residential layers have been inscribed.

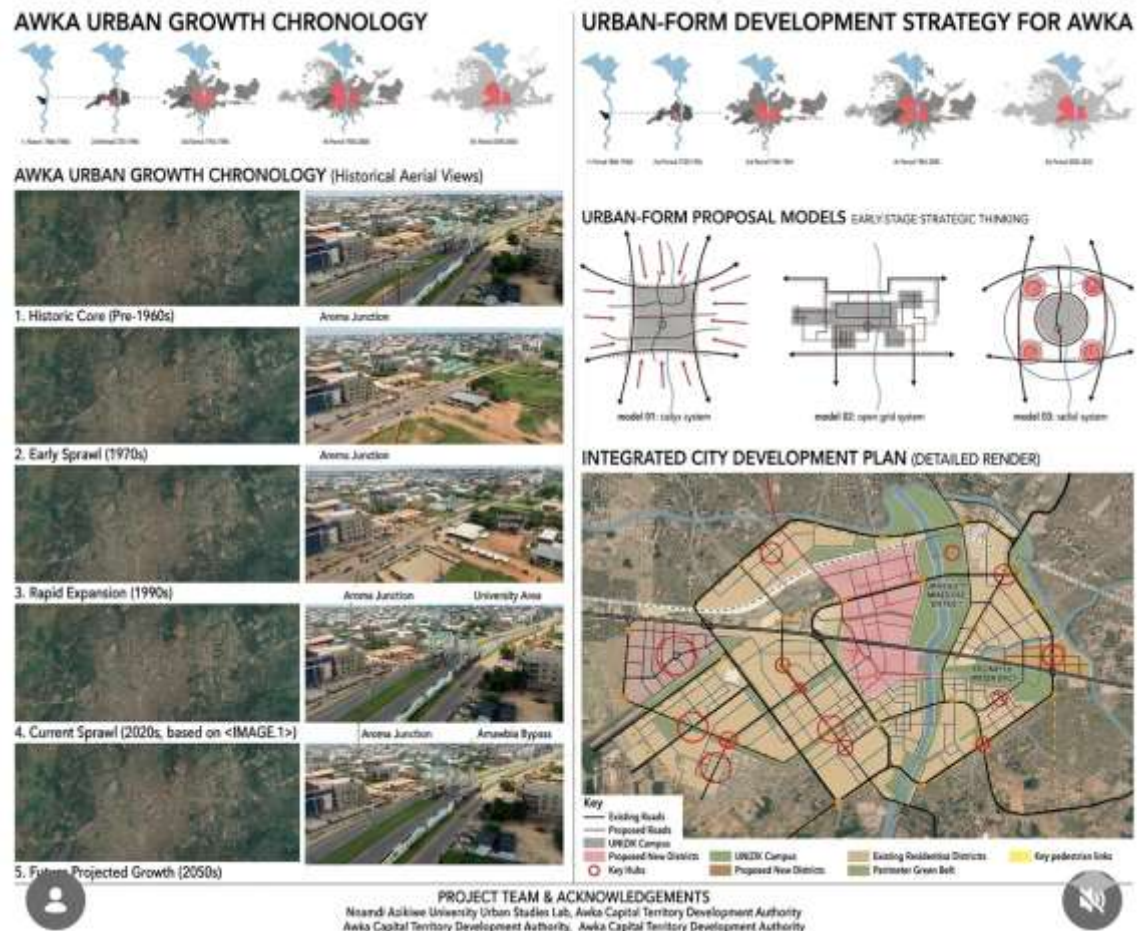


Figure 4. Awka urban growth chronology and form-development strategy: from historic core through rapid expansion to present dispersed fabric; alongside typological proposals and an integrated plan view.

5. Administrative Imposition and Formal Order

The designation of Awka as the capital of the newly created Anambra State in 1991 introduced a new layer of spatial logic. The Anambra State Government House and the associated Government Residential Area (GRA) established a geometry of planned plots, wider carriageways, setback regulations, and institutional compounds that contrasts sharply with the organic grain of older quarters. This geometry is visible in the regularised plot lines of the GRA, the ceremonial axis leading toward the Government House, and the cluster of ministry buildings that define the administrative core (Figure 5).

Yet this formal imposition has not produced a uniformly planned city. Its reach is finite, beyond the boundary of the administrative district, the grain loosens, plot sizes diversify, and informal expansions reassert themselves. The administrative core operates as one polarity within a polycentric field rather than as the generative template for the whole city. More interestingly, even within the formally planned districts, everyday practices recode the space, pedestrian routes cut across setbacks, traders occupy road shoulders during working hours, and rental housing accretes at the district's margins.

The key tension, therefore, is not between planning and its failure, but between planning as a finite operation and the wider field of negotiation that surrounds it. The administrative core anchors the city without determining it.

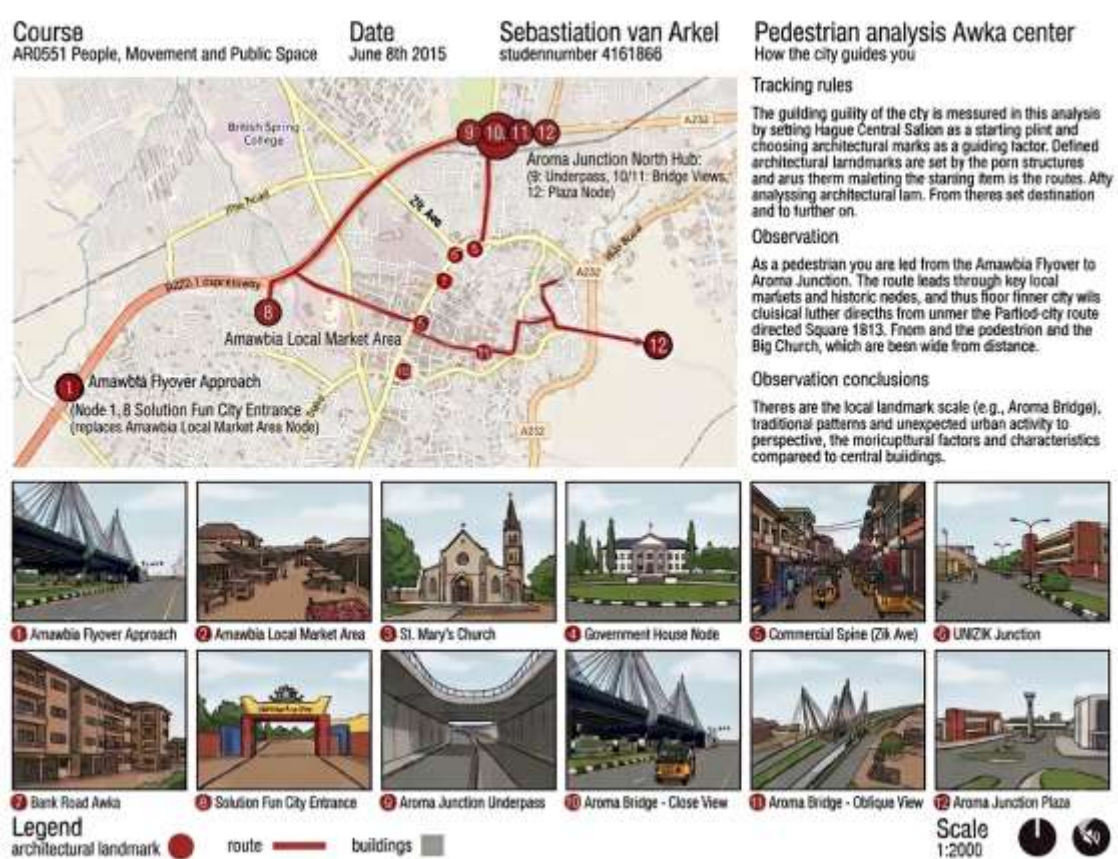


Figure 5. Pedestrian analysis of the Awka central axis from the Amawbia flyover to Aroma Junction, recording landmark buildings, street sequence, and everyday activity along the route.

6. Infrastructural Urbanism: The Expressway and the Flyovers

The Enugu–Onitsha Expressway (Federal Trunk A232) cuts through Awka as a linear spine, simultaneously connecting the city to the broader regional economy and dividing its internal fabric. The corridor structures a disproportionate share of the city's commercial intensity, filling stations, dealerships, hotels, mid-rise commercial towers, and informal markets accrete along its shoulders. This is infrastructure as generator, not only as conduit.

The Aroma flyover and its adjacent interchange, constructed to alleviate congestion at the junction with Zik Avenue, have become the most potent spatial event in the contemporary city (Figure 6). The flyover is not a neutral piece of engineering. It produces three distinct spatial conditions in immediate proximity. At elevation, it carries through traffic above the junction, preserving regional flow. At grade, it reorganises the pedestrian realm into a tighter set of crossings, slip lanes, and waiting zones. Beneath the structure, the shaded under-deck has been rapidly appropriated by informal commerce, kiosks, market stalls, phone-charging stations, keke tricycle ranks, and street-trading hubs populate the ground plane in ways that were neither anticipated nor prevented by the design brief.

These appropriations produce what may be termed under-bridge economies, transient but intense commercial ecosystems that arise in the interstices of infrastructural artefacts. They are not marginal. They are economically productive, structure significant pedestrian flows, and give the corridor its distinctive urban character. The argument here is therefore reversible, infrastructure shapes the city, but the city, in its everyday, entrepreneurial mode reshapes infrastructure.

ANALYSIS AND PROPOSAL: AWKA AROMA CORRIDOR

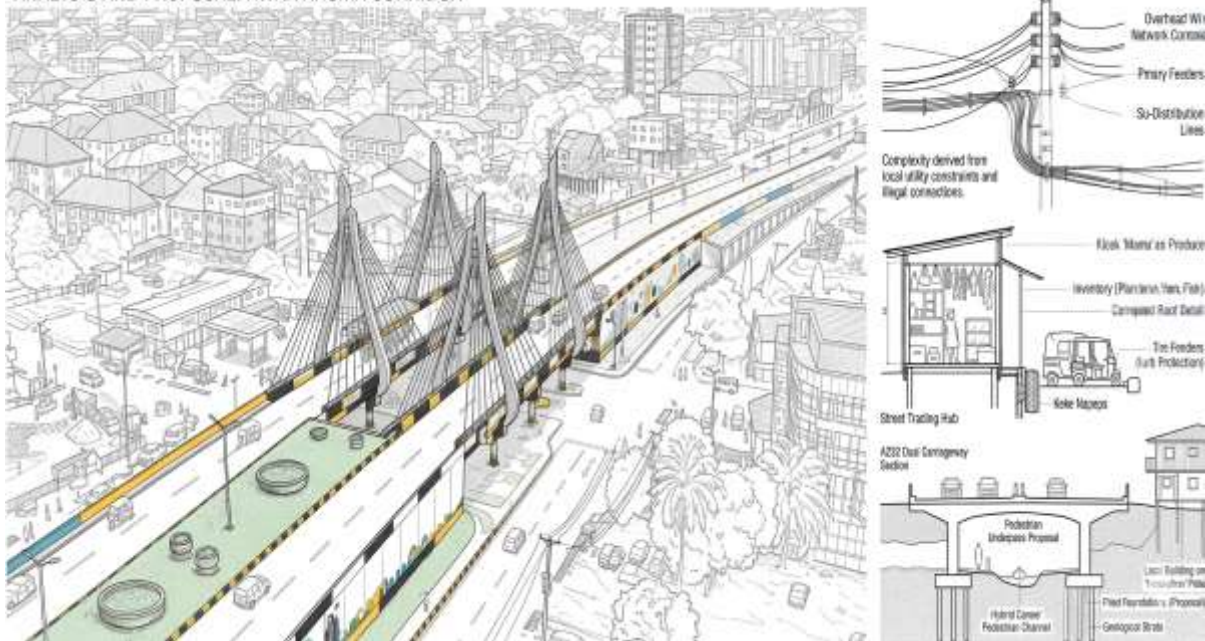


Figure 6. Analysis and proposal for the Awka Aroma corridor: flyover deck, service road, pedestrian underpass, kiosk typology, and drainage section, showing the interdependence of engineering and informal occupation.

7. Housing Morphology: The Scattered Private City

If the expressway corridor expresses intensity, the residential expanses of Awka express dispersal. The dominant housing typology is the individually owned family compound, a walled or semi-walled plot containing a principal dwelling, often with ancillary structures, a yard, and varying degrees of incremental construction. These compounds are developed privately, plot by plot, over long time horizons. A single compound may take fifteen years to complete as resources permit, and many remain in permanent partial completion (Turner, 1976).

The aggregate morphology is therefore fragmented rather than modular. There are no large housing estates dominating peripheral zones, no consistent block-and-street hierarchy, no unifying architectural language. Instead, one reads a fine-grained patchwork of private territories, each with its own frontage, wall colour, and completion state. Roads emerge as residual spaces between these plots, often unpaved, and frequently widened or narrowed ad hoc by encroachment and setback.

Yet this fragmentation is legible. The logic is recognisable across the city, plot first, road later, house first, infrastructure later, compound wall first, streetscape never. What reads as disorder at a glance is, in fact, a consistent development grammar an incremental housing system in which private capital, family networks, and land tenure drive urban production more decisively than municipal planning. The peripheral fabric of Awka thus stands as a legible, if fragmented, archive of distributed authorship, thousands of independent decisions producing a city that no single author designed.

8. The Student–Civil Servant Dual System

Awka's demography is structured by two overlapping populations that exert distinct pressures on the urban fabric. The civil service forms the permanent professional base, ministry staff, judiciary, and administrative workers whose working lives centre on the Government House and its surrounding institutional precinct. Their demand shapes the GRA, the mid-tier rental market, and a network of restaurants, supermarkets, and service establishments oriented

to salaried consumption.

The student population produced by Nnamdi Azikiwe University (UNIZIK) constitutes the second, cyclical layer. Tens of thousands of students occupy rental accommodation in Ifite Awka, Okpuno, and adjacent settlements during the academic session, generating demand for hostels, eateries, printing shops, pharmacies, and entertainment venues. When term ends, these zones visibly deflate.

The interaction of the two systems produces overlapping temporal rhythms. Weekday mornings belong to the civil service, weekday evenings and weekends belong to students and traders, long vacations belong to the residents who remain. Awka is therefore not one city but several, alternating in occupation of the same streets. The urban fabric must absorb these oscillations without rupturing, and it does so through a mixed typology of rental accommodation, convertible commercial frontages, and flexible informal vendor positions.

9. Street Urbanism and Commercial Negotiation

The street is the principal medium through which Awka's overlapping systems meet and negotiate. Along the major arteries, Zik Avenue, Arthur Eze Avenue, the expressway frontage, the cross-section is occupied simultaneously by vehicular traffic, keke tricycles, pedestrians, kiosks, sign banners, informal vendors, and the frontages of mixed-use buildings whose ground floors house shops while upper floors accommodate offices and residences.

This layered cross-section is not a failure of road design. It is an active negotiated interface in which movement and economy inform each other. A pedestrian arriving at a junction encounters a sequence of signals, where to cross, what to buy, which tricycle to board, which stall to greet. The kiosk is not an obstacle but an anchor, structuring pause and exchange. The sign banner is not clutter but wayfinding. The vendor's territory is not illegal occupation but tacitly agreed use, renewed daily through negotiation with neighbouring traders and transport operators.

Street urbanism in Awka is therefore a theory of the city in action, the street is where the polity, the economy, and the infrastructure meet, and where their conflicts are continuously resolved through small-scale adjustments.

10. Morphological Zoning: Four Urban Conditions

Across the preceding discussion, four coherent urban conditions have been referenced. This section presents them as a formal typology (Figure 7).

Zone 1 – Administrative Core. Structured around the Anambra State Government House and the GRA, this zone exhibits the most regular plot geometry, wider setbacks, and a cluster of institutional compounds. The dominant actors are state agencies, civil servants, and a subsidiary class of private developers producing upper-tier rental housing. Its form logic is orthogonal, hierarchical, and relatively stable.

Zone 2 – University Interface. Centred on UNIZIK and extending through Ifite Awka, Okpuno, and environs, this zone blends residential, rental, and small commercial functions. The dominant actors are students, landlords, small traders, and transport operators. Its form logic is dense but fine-grained, three- to four-storey buildings with commercial ground floors, compact lot depths, and aggressive frontage activation. Temporality is its defining feature.

Zone 3 – Infrastructure Corridor. Defined by the Enugu–Onitsha Expressway and its flyovers, particularly the Aroma interchange, this zone accommodates the city's most intensive commercial nodes. Dominant actors include federal and state infrastructure authorities, large commercial operators, and informal traders who occupy the residual spaces beneath and beside the structures. Its form logic is linear, event-driven, and punctuated by vertical infrastructural artefacts.

Zone 4 – Peripheral Housing Fabric. Surrounding and interpenetrating the other zones, this is the field of private compound housing, scattered plots, partial completions, and emergent local roads. Dominant actors are individual households, family networks, and small building contractors. Its form logic is additive, incremental, and legible only at aggregate scale.

These four zones are not discrete territories. They overlap, intrude into one another, and share street segments. What distinguishes them is the particular constellation of actors and logics that predominates. Mapping the zones is therefore a way of indexing the city's multiple modes of production rather than partitioning its ground.

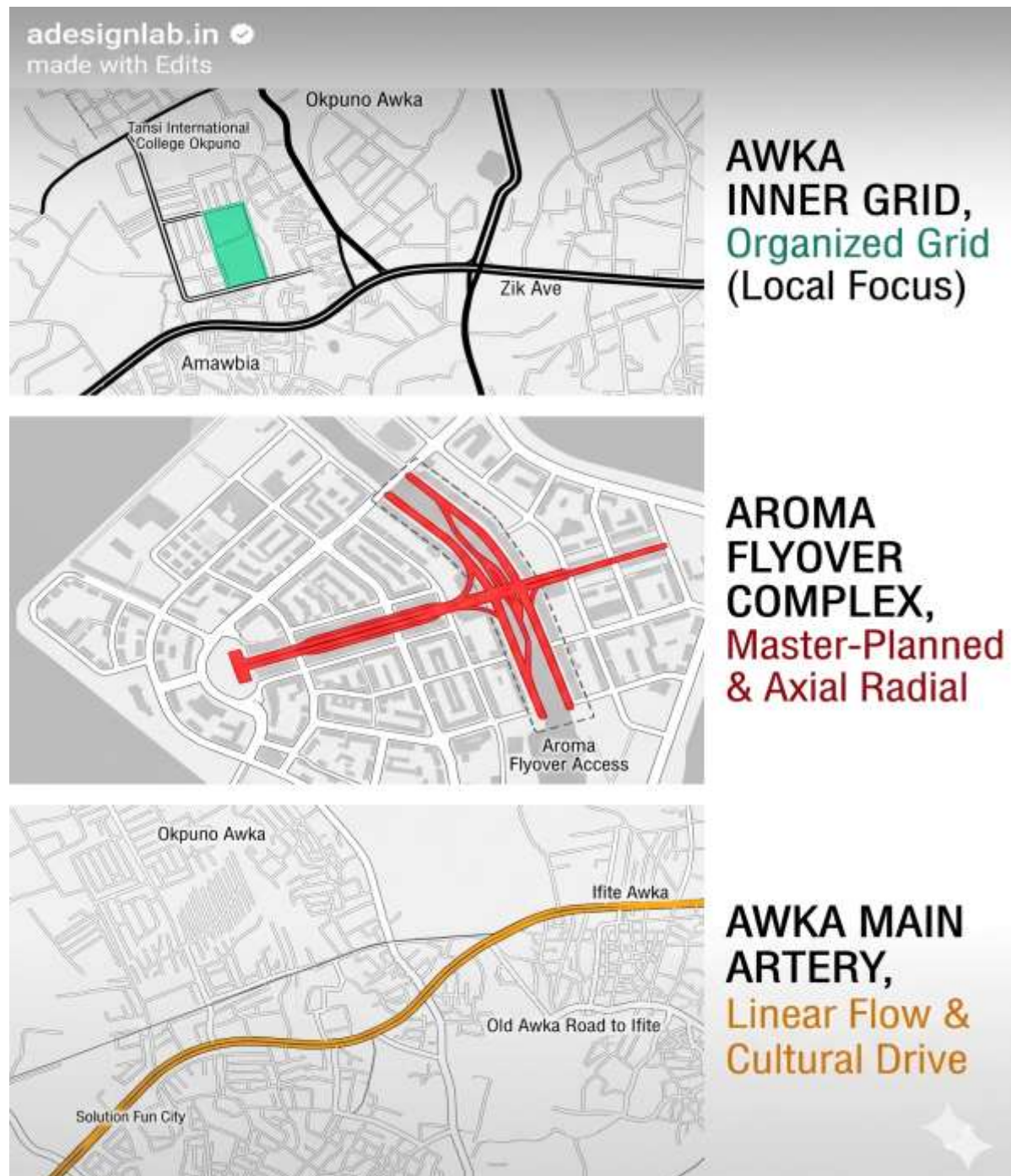


Figure 7. Three morphological registers extracted from Awka: the organised inner grid (local focus), the master-planned Aroma flyover complex (axial-radial), and the linear cultural drive of the main artery.

11. Synthesis: Awka as a Distributed, Negotiated System

Reading the four zones in combination dispels the notion of Awka as a single ordered whole or a planning failure. No single logic dominates. The administrative geometry of the GRA, the commercial density of the expressway corridor, the temporal rhythms of the university zone, and the incremental patchwork of the peripheral housing fabric are mutually constitutive. Each is partial, each leaks into the others, and each requires the others to exist.

The authorship of the city is therefore distributed. It includes the state planner who sets a setback line, the federal engineer who designs a flyover, the landlord who adds a second floor for student tenants, the smith-descendant who converts a workshop into a welding shop, the trader who claims a shaded corner beneath a bridge, and the commuter whose daily path polishes a pedestrian desire line. No one of these actors produces the city. Together, they do.

Awka therefore demonstrates, with particular clarity, a central thesis of this paper, coherence in the contemporary African city need not issue from a master plan. It can emerge, and frequently does, from the continuous negotiation of many actors operating at many scales.

12. Representation and Drawing Intelligence

Drawing has been more than a method in this study; it has been the interpretive frame through which Awka becomes legible (Figure 8). The section is deployed as an analytical instrument capable of revealing the vertical layering that satellite imagery cannot access, the tricycle beneath the bridge, the kiosk against the column, the drainage channel beside the service road. The axonometric is used as a relational tool, holding institutional and everyday elements in the same projection without collapsing their differences. The map, finally, is treated as a system visualization, a surface onto which overlapping actor networks can be indexed.

The choice of representation is thus itself a theoretical claim. To draw Awka in plan alone is to reproduce the myth of its simplicity. To draw it in section, in axonometric, and in layered overlay is to recognise its depth, its rhythms, and its negotiated character. The paper therefore contributes not only a reading of Awka but an argument for the drawing of African cities as an act of critical knowledge production.

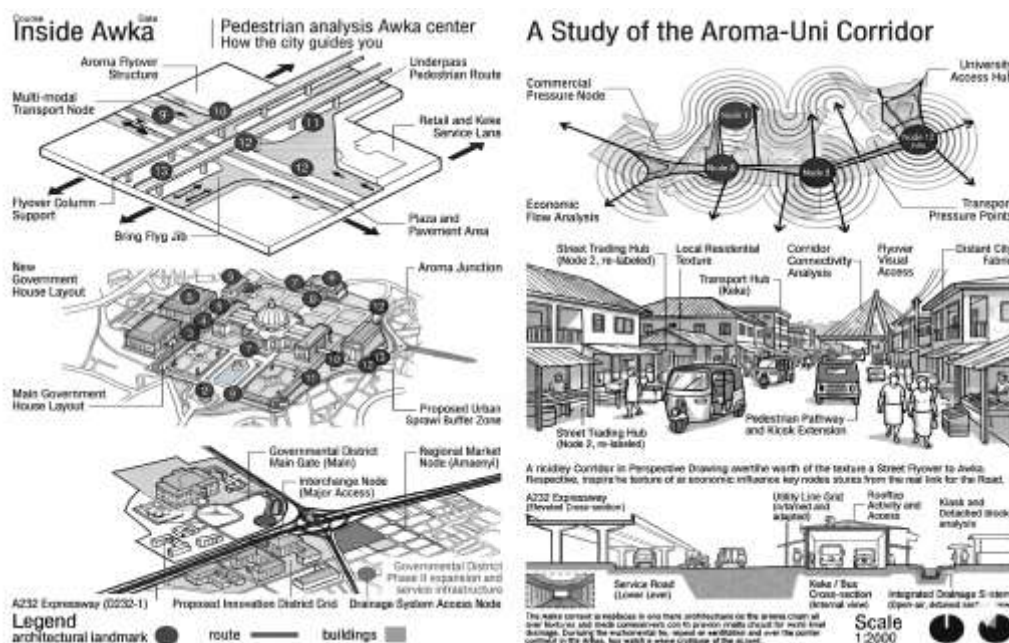


Figure 8. Axonometric analyses of the Awka governmental district and the Aroma–UNIZIK corridor, paired with cross-sections of the A232 expressway; drawing operates here as both description and argument.

13. Discussion: Positioning Awka Globally

Seen from a comparative horizon, Awka takes its place within a wider family of cities whose form emerges from the interaction of administrative intent and incremental private practice. Other Nigerian secondary capitals such as Umuahia, Asaba, and Makurdi share the pattern of a planned administrative core surrounded by incremental residential fabric and a formative infrastructural corridor. Across the continent, cities such as Gaborone, Dodoma, and Yamoussoukro, though distinct in their political genealogies, exhibit analogous tensions between formal designation and everyday appropriation.

The comparison is not confined to Africa. Southeast Asian dispersed cities, Bandar Lampung, Cirebon, or Bhubaneswar, display similar polycentric patterns in which institutional nodes, university towns, and infrastructural corridors organise a larger field of private compound development. Latin American incremental urbanism, from the self-built peripheries of Lima to the peri-urban expansions of Bogotá, resonates with the scattered private-compound fabric that defines Awka's peripheries (Turner, 1976; Holston, 2008).

Recent scholarship on African urbanism sharpens this comparison. Work on secondary and administrative cities argues that such settlements, long neglected in favour of megacities, are where much of the continent's urban future is being decided, and that their form is best understood through frameworks attentive to informality and endogenous ordering rather than imported master-planning norms (Watson, 2009; Myers, 2011; Silva, 2015). Purpose-built or newly designated capitals such as Dodoma, Lilongwe, and Abuja repeatedly show how planned cores are enveloped and recoded by incremental settlement, so that the planned city becomes one actor among many. A parallel literature on urban resilience reframes this incrementalism not as disorder but as adaptive capacity, the distributed, self-financed, and continuously adjusted production of compounds, workshops, and roadside commerce constitutes a form of everyday resilience through which residents absorb infrastructural shortfall and economic volatility (Pieterse and Simone, 2017; Cirolia and Scheba, 2019). Read against this body of work, Awka's negotiated fabric appears less as a local peculiarity than as a well-documented mode of African urban adaptation.

What these comparisons suggest is that Awka is not anomalous. It is an instance of a broader category that might be termed distributed administrative urbanism, cities whose coherence arises not from a single plan but from the cumulative action of multiple authors. Reading Awka in these terms contributes a locally grounded but globally legible case to contemporary urban theory.

14. Conclusion: Rethinking Planning and Urban Intelligence

This paper argued that Awka is best understood not as an under-planned administrative town but as a hybrid, collectively negotiated urban system. Its four morphological zones, the administrative core, the university interface, the infrastructural corridor, and the peripheral housing fabric, operate simultaneously and interdependently, each producing its own spatial intelligence and none exhausting the logic of the city. Urban coherence, in Awka, is an emergent property of continuous negotiation between state, infrastructure, and everyday practice rather than a product of centralised control. To recognise this is to revise the conceptual vocabulary through which secondary African capitals are read. Awka demonstrates that distributed authorship is not a weakness of urban production but a legitimate, productive, and increasingly common mode of producing the contemporary city.

15. Limitations and Future Research

Four limitations frame the study. First, the analytical framework is avowedly interpretive, morphological reading and drawing foreground spatial form and may under-register the

quantitative, economic, and lived dimensions that other methods would surface, and the four-zone typology should be read as a heuristic for indexing dominant logics rather than as a set of hard territorial boundaries. Second, the study draws primarily on morphological and infrastructural evidence and would be strengthened by sustained ethnographic engagement with residents, traders, and civil servants. Third, its temporal depth is shallow, longitudinal studies tracking compound completion rates, flyover-era commercial shifts, and student-population oscillations would enrich the argument considerably. Fourth, comparative fieldwork in other Nigerian and African secondary capitals would test the generalisability of the four-zone schema. Future research should pursue these directions, alongside investigations of drainage and utility systems, land tenure practices, and the governance of roadside commerce, to further illuminate the distributed intelligence of Awka's urbanism.

References

- Afigbo, A. E. (1981). *Ropes of sand: Studies in Igbo history and culture*. University Press.
- Basden, G. T. (1921). *Among the Ibos of Nigeria*. Seeley, Service & Co.
- Batty, M. (2013). *The new science of cities*. MIT Press.
- Cirolia, L. R., & Scheba, S. (2019). Towards a multi-scalar reading of informality in Delft, South Africa: Weaving the 'everyday' with wider structural tracings. *Urban Studies*, 56(3), 594–611. <https://doi.org/10.1177/0042098017740197>
- Conzen, M. R. G. (1960). *Alnwick, Northumberland: A study in town-plan analysis*. Institute of British Geographers.
- Google. (2025). *Google Earth imagery of Awka*. <https://earth.google.com>
- Holston, J. (2008). *Insurgent citizenship: Disjunctions of democracy and modernity in Brazil*. Princeton University Press.
- Moudon, A. V. (1997). Urban morphology as an emerging interdisciplinary field. *Urban Morphology*, 1(1), 3–10.
- Myers, G. (2011). *African cities: Alternative visions of urban theory and practice*. Zed Books.
- OpenStreetMap contributors. (2025). *Planet OSM*. <https://www.openstreetmap.org>
- Pieterse, E. (2011). Grasping the unknowable: Coming to grips with African urbanisms. *Social Dynamics*, 37(1), 5–23. <https://doi.org/10.1080/02533952.2011.569994>
- Pieterse, E., & Simone, A. (2017). *New urban worlds: Inhabiting dissonant times*. Polity Press.
- Roy, A. (2005). Urban informality: Toward an epistemology of planning. *Journal of the American Planning Association*, 71(2), 147–158. <https://doi.org/10.1080/01944360508976689>
- Silva, C. N. (Ed.). (2015). *Urban planning in Sub-Saharan Africa: Colonial and post-colonial planning cultures*. Routledge.
- Simone, A. (2004). People as infrastructure: Intersecting fragments in Johannesburg. *Public Culture*, 16(3), 407–429. <https://doi.org/10.1215/08992363-16-3-407>
- Turner, J. F. C. (1976). *Housing by people: Towards autonomy in building environments*. Marion Boyars.
- Watson, V. (2009). Seeing from the South: Refocusing urban planning on the globe's central urban issues. *Urban Studies*, 46(11), 2259–2275. <https://doi.org/10.1177/0042098009342598>