West African Voice Disguisers and Audible Ghosts: a case for expanding the fluency of global design history.

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Author's biographical note

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Abstract

With reference to a Boki voice-disguiser, created by an unknown designer in south-eastern Nigeria circa 1925, this article uses the concepts of sound and magic to reveal the limitations of current approaches to global design history. The noise-producing aspect of the instrument is related to profound metaphysical manifestations that challenge the global design historian to think beyond the industrial and technical foundations of design as defined in 'the West'. Alongside core literature around global design history, this essay engages with a diverse spectrum of methodologically focused scholarship, including anthropology and neuroscience in an attempt to understand the case study as a design object and a generator of auditory environment and ritual.

Keywords: global design history, ethnography, sound, magic, voice-disguiser, Nigeria

"Doo, who, brrrrrrrrrrrr".
The voice is mine when I produce it. But not when I hear it.
I deliver a flat and modulated tune that materializes as a high-pitched, nasal whine -
a startling noise that is entirely unfamiliar and seemingly independent from my
body. The instrument responsible for this alteration is a voice-disguiser. I hold the
simple cylindrical object between my fingers and sing once more. Its delicate
membrane of spider's silk vibrates.
"Zzznnnnnnnnnn Znnn"[1].

Introduction

Borrowing a term used by Dana Liebson in *Global Design History* (Adamson *et al.* 2011: 5) to describe objects that confront and disturb the established story of design, the Boki voice-disguiser (Figures 1,2) is a "difficult object". Its formal function is not simply to physically distort vocal sounds, but also to manifest deities and the spirits of ancestors. This latter function might be referred to as 'magic' – a category of reality that despite being present in all modern societies, is deemed irrational and pre-modern (Pels and Meyer 2003). The difficulty arises in that magical functionality – which rests on mystical connections rather than scientifically-proven processes – is not fully accounted for within the industrial and technical constraints of design theory. As global design history strives to actively engage with global practice and knowledges around making, this essay offers methodological recourse for the study of sound and the supernatural in design.

The object of study then, should be understood in two senses. Firstly, the Boki voice-disguiser as a physical device with a distinct set of functions, studied through the lens of global design history. Secondly, the framework of global design history itself with its enlightenment assumptions of scientific rationality - a rationale not fully able to account for the supernatural operations of the voice-disguiser. The question that guides this study then, is: How do the concepts of an 'auditory object' (Griffiths and Warren 2004) and 'metaphysical function' in relation to a Boki voice-disguiser circa 1925 from the ethnographic collections of Pitt River's Museum inform diversified approaches to 21st century global design histories?

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[1] This description of the object is offered by the author based on the physical handling of a self-made replica of the original object held at the Pitt Rivers Museum.
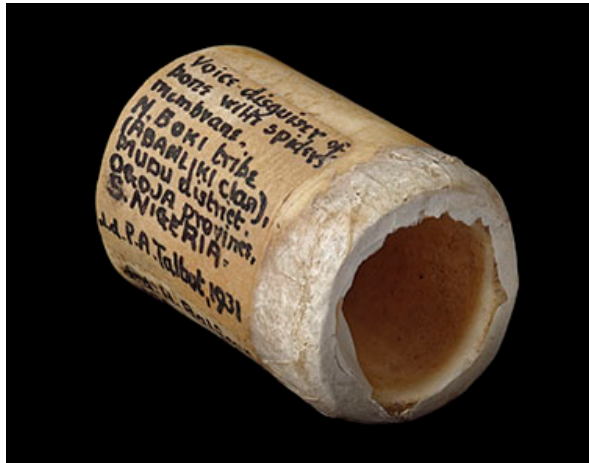
Fig. 1
Voice-disgusier of bone with spider's membrane, Pitt Rivers Museum, 1931.46.1., 1931
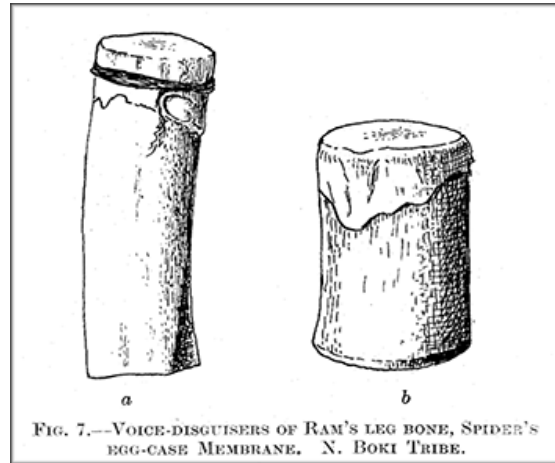
Fig. 2
Voice-disgusier of ram's leg bone, spiders egg-case membrane. N. Boki tribe', drawing by Henry Balfour, 1935

The argument being made is that for global design history to be viable, the explanatory framework of magic must be understood in design terms and applied to the study of objects where relevant. This argument is developed through three propositions. Firstly, that the Boki voice-disguiser can be considered a *design object* according to definitions outlined within global design history. Secondly, that while the visual bias in design history has been challenged over the past fifteen years[2], the relationship between objects and the phenomena of sound is underexplored in a design context. Finally, that this object has both technical and metaphysical functions. Alongside colonial ethnographies, museum archive documentation and the Boki voice-disguiser itself, the essay takes as a primary source the sound produced by this instrument in an attempt to foreground audible evidence.

Materials and methods

To investigate this object, the essay charts a course through local ethnographies and global histories – disciplines notably different in their ideological approach. As history was professionalised in 19th Century Europe, the Hegelian idea that Europe represented the end point of modernity and progress underpinned the writing of most historians, lending ideological support to the Imperial project (O'Brien 2006: 12). It has been argued that anthropology emerged in the 19th Century as a

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[2] See architectural historian Dennis Doordan's 1993 essay on the aluminium industry which includes haptic reading of the design material; craft historian Tanya Harrods' 2015 essays on modernism as told though the optics and haptics of designed and crafted objects; and architectural historian Sabine von Fischer's forthcoming 2019 book on architectural acoustics as an argument and parameter in design.

sympathetic study of primitive peoples - critiquing imperialism, while unwittingly objectifying colonised societies (Stone 2001: 4). It must be noted however, that many anthropologists were themselves colonial officials based in occupied territories. Nevertheless, until the mid-20th century, history and anthropology developed side by side - one facing Europe and the other facing the non-industrialised world. These disciplinary divisions and their imperial assumptions also underpinned the ordering and display of collections in emergent 19th Century public museums – "inscribing and broadcasting messages of power … throughout society" (Bennett 1995: 61).

The 1960's witnessed the beginnings of a globalisation and decolonisation of both historical studies and anthropology. Historians including William McNeill acknowledged global networks of influence across civilisations (McNeill 1963), while anthropologists such as Bronislaw Malinowski articulated the importance of participation and relationship equality in ethnographic research (Malinowski 1967). More recently post-colonial historians such as Prasenjit Duara have gone further, calling into question the subjective boundaries separating the so-called pre-modern and modern (Duara 1995). It is against this backdrop that global design history unfolded at the turn of the 21st century. Publications including Glenn Adamson, Giorgio Riello and Sarah Teasley's *Global Design History* (2011), Victor Margolin's *A World History of Design* (2005) and Tony Fry and Eleni Kalantidou's *Design in the Borderlands* (2014) are among many that aim to correct "the dominant, lopsided representation of the history of design as occurring primarily in Western Europe and the United States" (Adamson et al. 2011: 2).

Still inherent to global design history is an undeniable tension centred around the above-mentioned disciplinary division. Historians such as Adamson, Riello, Teasley and Margolin argue that a post-colonial global approach should involve a scholarly mapping of networks of design across the globe. Alternatively, designer Tony Fry and psychologist Eleni Kalantidou argue for a decolonisation of the field through localised ethnographic studies of design practices and indigenous knowledges. This paper attempts to combine principles from both approaches, perhaps to its detriment. It adopts a transnational concern for inter-cultural encounter and the decentralising of Eurocentric design history.
However, it also acknowledges that the concept of design is itself a Western category that is far from apolitical – it remains largely defined by an imperialist legacy that sets modern against primitive, design against craft, rationalism/function against magic, the material against the immaterial. This essay therefore calls for global design historians to bring other philosophical understandings of matter and objecthood – beyond the eurocentric and object-

oriented - to bear on our discipline and let these frame the questions we ask of things.

Alongside the core literature of recent years around a global design history, this paper engages with a diverse spectrum of methodologically focused scholarship, including anthropology and neuroscience in an attempt to understand the case study as a design object and a generator of auditory environment and ritual. Pre-1960 ethnographies such as those of Percy Talbot and Henry Balfour offer insight into the role of the voice-disguiser within Boki society in the early 20th century, but reflect colonial social categorizations in which primitive tribes and chiefdoms are set in opposition to modernity (Joyner 2016: 45). Post-1960's anthropologists such as Edward Lifschitz, David Napier and Anthony Jackson provide more self-conscious and detailed analyses of voice-disguisers with respect to their particular cultural systems. Field research carried out since the 1980's by African arts scholar Sidney Kasfir, historian Elisabeth Allo Isichei and ethnomusicologist Joy Nwosu Lo-Bamijoko have provided diverse disciplinary insights into this case study - and crucially offer an African perspective to a dominantly British and American historiography.

Ethnographic descriptions of the object as an "acoustic mask" (Lifschitz 1988) or an "audible ghost" (Isichei 1988) raise important questions for design: what is the relationship of design objects to sound? How is design functionality understood in a metaphysical[3] context? These questions have been explored by borrowing conceptual tools from neuroscientists Timothy Griffiths and Jason Warren (Griffiths and Warren 2004), as well as design philosophers Wybo Houkes and Pieter Vermaas (Houkes and Vermaas 2004). Histories of design history usually chart the genesis of the field as it draws from and differentiates from art history (Fallan 2010: 4). This essay suggests that global design history, as a particular preoccupation within the field of design history, might instead trace its research strategies and theoretical concepts through the fields of history and ethnography, informed by postcolonial perspectives. Taken together, these approaches allow global design historians to explore the intertwined natures of industry, technology, handcraft and ritual. The future of the field is looking increasingly interdisciplinary.

The Boki voice-disguiser – an object of design?

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[3] The term 'metaphysical' is used in the essay to refer broadly to how designed things function not in a physical and technical sense, but in an abstract or even transcendental sense. While design theorist John Heskett acknowledges the metaphysical as an intangible but meaningful component of design form (Heskett 2002, 35), this essay explores metaphysical aspects of design function.

A fundamental problem in globalising design history is the definition of design. Taken together, it might be stated that global design histories move from a technical definition of design to a more humanist one. For Adamson *et al.*, design is synonymous with human activity (Adamson *et al.* 2011: 3). For Margolin, design is any object, system or service that serves the needs of people (Margolin 2005: 1). And for Fry, design embodies the intentions of people (Fry 2014: 1). This emphasis on *people and design* over *technology and design* allows these historians to somewhat disentangle the concept of design from industrialization and modernism, thereby opening up the possibility to engage with makers from less-industrialized parts of the world. Indeed, translations of 'design' in *Boki*[4] refer to the human process of invention across art forms – *okika* meaning 'to be creative' in ancient discourse, and *okabé* meaning 'thought' but also referring to design creation in contemporary usage (Otuson, P, personal communication, 30 July, 2019). To ascertain whether the Boki voice-disguiser might constitute an object of design, the essay charts and challenges the different ways that the object has been categorised within the Pitt Rivers Museum.

The Boki voice-disguiser (Figure 3) is a simple structure consisting of a hollowed cylindrical tube with openings on each side. One of these remains uncovered, while the other is capped by a membrane stretched and secured across the aperture with a gum or adhesive applied by the thumb or forefinger. The extremely delicate lamina has decayed in part, revealing the raw edge of the barrel, that appears to be made from bone cut and with a serrated blade. The object is clearly hand-crafted and the designer has made use of the natural shape of the bone to form the body of the instrument (Figure 4). Measuring a mere 3.7cm in diameter and 5.6cm in length, it was designed to be held within the wrapped fingers of a hand with the mouthpiece facing upwards. To activate it, the operator covers the open hole with his/her mouth and speaks or sings into the hollow space within. This generates an air current which makes the spider silk membrane vibrate, creating a distortion to the user's voice.

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[4] Colloquial translations were kindly provided by Pospi Otuson, promoter of contemporary Boki culture and founder of BokiBlog.com, via email exchange dated 30 July, 2019.

Fig. 3
Voice-disgusier of bone with spider's membrane,
Pitt Rivers Museum, 1931.46.1., 1931, archive
document

Fig. 4
Voice-disgusier of bone with spider's membrane,
Pitt Rivers Museum, 1931.46.1., 1931, archive
document

On arriving at the Pitt Rivers Museum an inscription was applied to the surface of the voice-disguiser, which provides the viewer with a brief biography of the object as told through the conventions of the Pitt Rivers Museum labelling system. As context, the museum was founded in 1884 by British Army General Augustus Pitt-Rivers, a devout advocate of the then-popular idea of evolution. Pitt-Rivers applied evolutionary theory not only to biological organisms, but to human societies and their cultural output. His museum displays offered a comparative view of the function and form of artifacts from around the world – unsurprisingly culminating in European production (Petch 2010). Here, an interesting parallel might be drawn with Barthes' metaphoric association between the human brain – in this case the wider Victorian mind-set - and the institution of the museum (Barthes 1957: 68). Early collections were gathered largely by field collectors including colonial officers, their families and members of the Royal Anthropological Institute. The "museum etiquette" (Garoian 2001: 247) of prioritizing collectors, their anecdotes, and donors reinforced this imperial cultural narrative.

The label for this particular object claims that it was made within the Abanliki clan of the Northern Boki tribe[5] – notably, the maker and owner's name have not been recorded. It further states that it was given to or appropriated by a P.A. Talbot who donated it to the Museum under the care of H. Balfour in 1931. Balfour bequeathed it to the Museum in 1939. The label by default also informs the viewer of what the object was *not* – it was not British; it was not an industrial object and the community in which it was made would not have been categorised as 'modern' in1930's Britain. Design at this time was increasingly defined in relation

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[5] Boki refers to a particular tribe of people in this instance. Today, Boki is used to refer to a variety of farming communities in the larger local government area of Cross River State in Nigeria.

to industry by the likes of the Society of Industrial Artists (1930 -), the Gorell Committee on Art and Industry (1931) and the *Design in Modern Life* radio debates (1933). In this historical moment, the voice-disguiser would have been viewed as a curious and 'primitive' artefact – crafted rather than designed[6] (Adamson 2013, xv).

Consulting the Pitt Rivers Museum annual report of 1931 reveals that Henry Balfour was the curator responsible for collecting this item, accessioned through the "kind interest of the Government and local administrative officials" in Nigeria (Pitt Rivers Museum Annual Report 1931: 1). As a British colonial district officer, Percy Talbot viewed objects such as these as evidence of native practices, useful to understand in order to better administrate (E.W.S. 1926). For Balfour, the Boki voice-disguiser was a means of "tracing the geographical and historical distribution of different manufacturing techniques and *design elements* to develop a world-wide picture of inter-cultural contact and innovation" (Larson 2006). It should be noted that despite his evolutionary worldview, he did not place objects like the voice-disguiser in opposition to design, but considered design a part of all objects. In his paper, 'Ritual and Secular Uses of Vibrating Membranes as Voice-disguisers', Balfour referred to his collection of voice-disguisers as having been "*designed* to serve a … purpose" (Balfour 1948: 65, 68).

Augustus Pitt Rivers himself used the term 'design' when he described the objects in his founding collection as being of "archaic design" (Rivers 1891: 119). He was less interested in contemporary debates of craft versus design, and more interested in organising 'everyday objects' into *types* of forms, charting their progress from 'primitive' to 'civilised' (Rivers 1906). This typological worldview was adopted and developed by Balfour, who despite serving as President of the Royal Anthropological Institute, was a zoologist trained in comparative animal morphology. Balfour understood objects as species that could be organized according to the similarities and differences of their anatomical structures. Through Balfour, the Boki voice-disguiser was assigned to the 'voice-disguisers' species along with toy mirlitons from France, hunting squeakers from Zimbabwe and many more (Figures 5,6). The voice-disguiser species fell within the newly-formed musical genus 'membranophones' as defined by the German Hornbostel-Sachs system (Hornbostel and Sachs 1914) – referring to instruments whose sound is generated by striking, rubbing or singing onto a stretched membrane. This in

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[6] Contributing to the ongoing Anglo-American craft versus design debate, design historian Glenn Adamson argues against craft as an anti-modern discipline – an ideological status assigned during the 19th Century. In his book *The Invention of Craft* (2013), craft is framed as a skilled process crucial to the fabrication (industrial or otherwise) of any designed product.

turn, fell under the Pitt Rivers Museum family 'musical instruments: other than automatic' (Blackwood 1970: 47).

Fig. 5
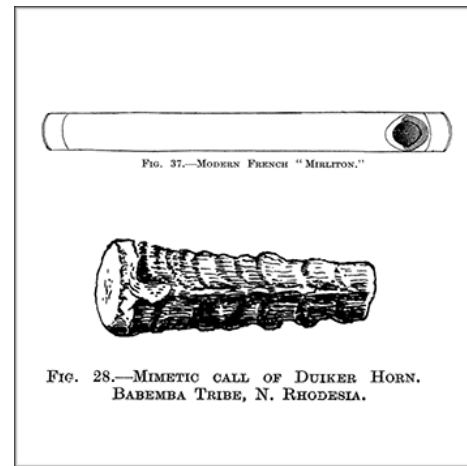Cabinet of voice-disguisers, Pitt Rivers Museum, 2018

Fig. 6
'Modern French mirliton' and 'Mimetic call of duike horn, Babemba tribe, N. Rhodesia', drawing by Henry Balfour, 1935

Comparing this zoological categorization to the society-centered categorization of the voice-disguiser within Nigeria, reveals a somewhat different understanding of the object. Ethnomusicologist Joy Nwosu Lo-Bamijoko in her survey of indigenous classifications for Igbo musical instruments[7], describes categorization and naming as having two factors. The first focuses on the instrument and its particular sound - a similar approach to that of Hornbostel and Sachs. The voice-disguiser lies within the primary class *iti*, which means 'to strike a membrane' (Lo-Bamijoko 1987: 19) and then, *igba*, that is 'a drum of any size and shape' (Lo-Bamijoko 1987: 25). However, the second aspect focuses on its function in society. Here, the voice-disguiser may be classified as an *igba-alusi*, an *igba-mmonwu* or an *igba-egwu*, depending on the social context in which it is used. *Alusi* translates to 'sacred' and the *igba-alusi* is played in secretive ceremonies to summon the gods. *Mmonwu* refers to ancestral spirits and the *igba-mmonwu* is used during dance performances. *Egwu* translates to drama and the *igba-egwu* is used in theatrical plays (Lo-Bamijoko 1987: 26). Whatever the context, all *igba* always possess inherent supernatural powers. They can talk, sing and manifest the gods – they are at once musical instruments, social tools and metaphysical manifestations.

If we are to adopt a revised and inclusive definition of 'design' as proposed by global design historians, then objects that were once deemed 'pre-modern', 'primitive' and strictly ethnographic are now actively invited into the design fold.

[7] While the terminology differs between Igbo and Boki, Lo-Bamijoko asserts that the ontological system presented is applicable to larger parts of Nigeria.

Furthermore, as Adamson suggests in his review of Margolin's *World History of Design* published in the design journal *West 86th*, "… there are many other words in many other cultures that approximate and also, interestingly, differ from [this] concept of design" (Adamson 2015: 224). Industrial articles, ethnographic artefacts, metaphysical tools, musical instruments: other than automatic – might all of these fall under the order 'design'? The global design historian would say yes. The question then is whether global design history has the required concepts and terminology to allow us to attempt to describe objects such as the Boki voice-disguiser in terms of its social, musical and metaphysical function?

The voice-disguiser – an auditory object?

As a musical instrument, the Boki voice-disguiser cannot simply be understood as a three-dimensional object. Its auditory aspect requires attuning our investigation to the phenomena of sound. This includes the technical production and the sonic quality of the sound. However, on a more abstract level, it also explores how we might understand the sound of the voice-disguiser as an acoustic disguise. In contrast to physical disguises which mask visible things (a mask conceals a face, a cloak conceals a body, or a veneer conceals the underlying material of a piece of furniture), an auditory disguise masks sounds. The voice-disguiser as a kind of mask for the human voice is described by Edward Lifschitz in his article 'Hearing Is Believing: Acoustic Masks and Spirit Manifestations' (1988). According to this notion, the sound produced by the voice disguiser is not understood simply as a vibration or a stimulus, but as a discrete type of artefact – an "acoustic mask" (Lifschitz 1988). In order to explore the objecthood of this artefact that can be heard but not seen, we must turn to concepts outside of the visual arts.

In their opinion paper 'What is an Auditory Object?' published in the science journal *Nature* in 2005, neuroscientists Timothy Griffiths and Jason Warren offer a critical perspective on the concept of an 'auditory object'. The term has attracted attention among neuroscientists interested in auditory cognition and describes a sensory entity that is not processed in the brain through visual means, but rather through auditory means. The paper begins rather provocatively with: "Objects are the building blocks of experience, but what do we mean by an object?". This concept can be seen by design historians to develop recent scholarship that aims to expand the understanding of materiality in the design and to challenge the enlightenment privilege of physical objects. Griffiths and Warren propose three general inquiries that might serve as a basis for the study of auditory objects. Firstly, what is the source of the sound? Secondly, how is the sound recognized?

Thirdly, what are the perceptual boundaries [shape] of the sound within a given locality? These inquiries are applied directly to our case study.

It is clear that the primary source of the sound produced by the Boki voice-disguiser is initially created by human means – through vocal utterances emitted by a player. A modification of this sound occurs when the sound-waves from the player are spoken into the voice-disguiser, setting the flexible membrane of the instrument in motion. This produces another set of air-waves which interferes with the original set, distorting the primary sound by adding a droning quality. Unlike wind instruments in which sound is generated by air as the primary vibrating medium, the voice-disguiser modifies sound by having a skin vibrate with it. Therefore, the vibrating membrane is a subordinate source of the sound. Finally, there is also the metaphysical source of the sound that we might consider – an individual or variety of spirits might be manifested through the voice-disguiser, their message depending on the context. The source of the sound is therefore a supernatural-human-object complex in which a metaphysical incorporeal authority channels a message through a human being who speaks through the voice-disguiser – the human speaks and a spirit is heard.

While many spirits are perceived as embodied by a masked performer, some spirits appear in total darkness and "may not have a visual – that is a perceived corporeal form - they are perceived instead by other human senses …by the sounds they make." (Lifschitz 1988: 221). Sound studies scholar Professor Steven Connor, in a 2005 conference series entitled *Bodily Knowledges: Challenging Ocularcentricity, argued that* sound has the peculiar capacity of escaping an assigned position; sound art leaks beyond the gallery space. "Sounds are always embodied, though not always in the kind of bodies made known to vision" (Connor 2005: 54). Listeners recognise a spirit presence through the weird and unearthly sound and speech patterns they employ – a bombilating base-line pierced with irregular bleats in shrill pitches and the lisping vocal articulations characteristic of the voice-disguiser (Peek 1994: 487). Timothy Ghibi, a Kamantan informant interviewed by Elizabeth Isichei for her essay 'On Masks and Audible Ghosts' recalls "We came at a time when these things were dying out. But I have witnessed it myself…we heard voices which sounded like a musical instrument …" (Isichei 1988: 57). The texture of this acoustic presence or "audible ghost" (Isichei 1988) is as recognizable as any visual referent.

In order to understand this sound in context, one might imagine it resonating through the architecture of Boki neighbourhoods, suggesting particular shapes in space. When used for entertainment, the rhythmic sound was centred around a particular performer within the village square, inviting a mixed audience into its interior. During important visitations of spiritual beings, women were relegated to

the outskirts of the neighbourhood, encountering only the shadows of the awesome, frightening sonic mass that announced the spirit's arrival (Peek 1994: 486). In this way, the soundscape was gendered concentrically and served to reinforce secret bodies of knowledge and the patriarchal structure of a community. When the voice-disguisers were employed to intimidate and implement justice, "teams of men placed themselves strategically around a village at night. The voice-disguisers "were spoken into consecutively and in an identical manner, giving [both male and female] non-initiates the impression of a spirit flying over and around the village"[8] (Lifschitz 1988: 224). Here, the acoustics are aerodynamic and self-intersecting reinforcing the omnipotent and agitated presence of ancestors. It is clear then that the spatial forms of the sound are deeply affected by peoples' perceptions and "earpoint" (McLuhan, Carpenter 1960) – that is, their boundaries are both cultural and physical.

In describing masks that are made of sound, Lifschitz argues that "sounds and other more ephemeral phenomena should qualify equally as well as wood, cloth or other material concealing agents" (Lifschitz 1988: 227). This raises questions regarding the materiality of sound and the means by which it might be examined by design historians and theorists. The form of the sound produced by this instrument is, according to Griffiths and Warren, a sensory entity that can be mentally processed in a similar manner to physical objects. That is, the sound is represented by the brain in terms of its point of supply, its texture and pattern characteristics, its composition and shape. Furthermore, the sound of the voice-disguiser as described above, can be manipulated, reconstituted, disembodied and even *designed* in comparable ways to physical matter. Therefore, the analyses associated with the concept of auditory objects – in as far as it is based on a systems and aesthetic reading – places the design historian in relatively familiar territory.

The Boki voice-disguiser – a metaphysical tool?

As described earlier in the essay, this object is an *igba-alusi* – a term which points towards its function in society being divine or magical. Function is one of the central underlying features of design inquiry and thus the study of design history. It is commonly understood as the formulation of a technical object such that it can fulfil a particular technical function (Ullman 2002). However, while the Boki voice-disguiser is indeed a tool that does a job, much of its work relates to the

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[8] Lifschitz's describes this kind of dynamic sound performance in general terms rather than in relation to the Boki. He makes reference to the anthropological field research of George Schwab (1947) in Liberia and Colin Turnbull (1961) in Zaire (now the Democratic Republic of Congo).

metaphysical. It *functions* to create a link between worlds and is evaluated in such terms by its intended users (Barley 1992: 110). Function through the lens of physics does not fully describe the work done by this instrument. Eric Hayot and Rebecca L. Walkowitz in their book *A New Vocabulary for Global Modernism* (2016) stress the importance of reassessing the foundational concepts of Modernism in the arts through a global approach – to paraphrase: function is not code for one limited kind of function (Hayot and Walkowitz 2016: 7). How then, might a design historian consider function in a metaphysical sense?

Commonly, we assign functions to artefacts based on their physical properties or behaviours – that is, we assign 'physical functions'. However, in trying to demonstrate the continuity between the physical world and the metaphysical world, the author proposes a special class of functions called 'metaphysical functions'. This expanded notion of functionality rests on an argument presented by philosophers of technology Wybo Houkes and Pieter Vermaas. In their article 'Actions versus Functions: a Plea for an Alternative Metaphysics of Artifacts' published in the philosophy journal *The Monist* in 2004, they outline an expanded understanding of function in design. Rather than asking "What is the function of a design?", they ask "How is the object intended to be used?". This allows them to consider different kinds of use of an object that may previously have been deemed irrational[9]. For Houkes and Vermaas, use is rational if a designer intends an artefact to be used in a particular way and the user expects that too (Houkes and Vermaas 2004). They propose three general inquiries that might serve as a basis for the proposed study of metaphysical function in relation to the Boki voice-disguiser. Firstly, who is the user? Secondly, how do they have to interact with the artefact? Thirdly, are they doing this correctly and to what effect?

While the use of voice-disguisers by the Boki is relatively undocumented, the subject of voice-disguisers used within secret societies in West Africa in the early 20th Century has received some scholarly attention, most notably in the writing of Edward Lifschitz (1988) and Sidney Kasfir (1988). Lifschitz describes members of secret societies[10] as status-seeking younger men who employ their physical powers and prowess to embody and "temporarily control the nature spirits that inhabited the immediate environment" (Lifschitz 1988: 223). In playful public performances – which are still very prominent in Nigeria today, at events such as the Ubiaja Cultural Festival (Figure 7) – the voice-disguiser is hidden behind a mask and used to produce animal utterances, recite poetry and sing. This

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[9] Pels and Meyer (2003) see the distinction between the rational modern subject and the irrational pre-modern subject as no more than a modernist myth that needs further scrutiny.

[10] Balfour states that the Boki voice-disguiser was used primarily "for simulating spirit voices in the mysteries of the Ikhan secret society" (Blackwood and Balfour 1948, 48). The author was unable to find reference to this particular society.

sounding signifies a deep "acoustic knowing" of the particular nature and culture of a habitat (Feld 1996: 97). Performances were the "primary form of enactment and the most popular form of entertainment…yet even the most frivolous…is nonetheless a 'spirit' manifestation" (Kasfir 1988: 3). In this context, a young man uses the voice-disguiser as part of a public display of his athleticism, machismo and status in both the natural and social world.

Elizabeth Allo Isichei (1988) and Lifschitz (1988) recount another use of the voice-disguiser with secret collectives. Older men with important lineages (Isichei 1988: 47) use the instrument to carry out law-making – primarily the arbitration and adjudication of land disputes – in a system known as *kykware*. In contrast with song and dance performances, which are necessarily concerned with display and often appeared during the day, these proceedings occurred only at night – the all-powerful spirits remaining unseen but audible (Lifschitz 1988: 222). The administrative body used voice-disguisers, forceful voices and weighty pronouncements to channel male ancestral spirits – "The [ancestral] spirits acted as astral policemen…" (Isichei 1988: 41, 60). The juridical function of the spirit ancestors was however displaced by the colonial implementation of central government powers over rural areas in the 20th century. As such the voice-disguiser lost both its authoritative effect and its political function (Lifschitz 1988: 223 – 224). It is argued today that the breakdown of community-spirited *kykware* has contributed to recurrent outbreaks of violence in connection with land ownership disputes in the region. The civil authority - which functions independently from institutions such as the council of elders, ancestor veneration and supernatural sanctions - has been unable to quell the crisis (Bayim 2015: 37, 42). This calls into question the notion of 'progress' and the destruction of narratives of functionality connected to the voice-disguiser.

Voice-disguisers retain a grassroots political function in contemporary Boki society, through adapted versions of *Kwagh-hir* puppetry performed at annual festivals, such as the Boki New Yam Festival (Otuson, P, personal communication, 30 July, 2019) (Figure 8). Nigerian puppetry scholar Iyorwuese Hagher in his book *The Kwagh-hir Theatre: A weapon for social action* (2014) describes how spirit performances within puppetry are being reoriented towards satiric skits as a form of activist resistance against political corruption. The conspicuous street puppetry tradition throughout the region was documented by Talbot in his 1923 book *Life in Southern Nigeria* (Figures 9, 10). In the chapter entitled ''Magic' Plays', he describes how a voice-disguiser is used by hidden puppeteers within a puppet show to manifest the spirits of the play:

> As each marionette appeared, a black rooster was lifted up to touch it… to confer upon it the power of speech and movement. The voices of the actual speakers were disguised by the use of a small tube made from corn-stalk

covered with the membrane taken from beneath a bat's wing (Talbot 1923: 77).

This process of using voice-disguisers to let puppets speak[11] involves creating the voices of a great variety of characters, and therefore requires a mastery of their use. If done correctly, "the uninitiated believe that the figures are actually speaking" (Balfour 1948: 49), inanimate forms now animated through the presence of a spirit.

Fig. 7
Still from video showing the modern version of the Igbabonelinmhin acrobatic dance, Esanland in Edo State, Nigeria, 2010, directed by Chris Akahome.

Fig. 8
Photograph of contemporary puppetry performance at the New Yam Festival, Boki, 2017

Figs. 9, 10
'The Akan puppet show, S.E. Nigeria' photographed by Henry Talbot, 1922.

On a social level, the Boki voice-disguiser was used for fairly mundane purposes – as a rhythmic device while dancing, as a form of court address, as a means of creating character voices in a puppet show. On a metaphysical level however, it

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[11] Similar voice-disguisers have also long been used in European puppetry traditions for their distinctive rasping voices, most notably as the voice of Punch in Britain, or to provide the voice of the devil in Germany (Boehn 1932, 311).

was consistently used to sacralise space in order to permit a dialogue between human beings and the spirit world (Peek 1994: 479). Borrowing from the concepts of Houkes and Vermaas, we might redefine the function of an artefact as follows: function relates to a designer's purpose realized through the use of an object by particular users with particular practices in a particular environment. This device was undoubtedly designed by someone for the purpose of manifesting spirits. It was used by that same person or someone else for precisely this purpose, with the understanding that his audience held a shared understanding of the practice of spirit manifestation. The logic of design Modernism may have deemed this purpose irrational. According to Houkes and Vermaas, this constitutes a rational function in design terms.

Conclusion

Expanded definitions of design within global design history attempt to make allowance for the Boki voice-disguiser. However, the object cannot be adequately described through the logic and frameworks of the field. A recognition of the alternative ontologies of the voice-disguiser, its auditory power and the ways in which it functions metaphysically, reveal the limitations of a modernist understanding of design objects such as this one. In his introduction to Magic and Modernity (Meyer and Pels 2003: 4), Peter Pels suggests that modernity reinvents magic in order to distinguish itself from it – that is, western modernity establishes its scientific stance in part by denouncing non-scientific ideology. It could be argued that design does much the same in relation to arts, ethnography and craft – categories that are also western enlightenment constructs. While design and its canon are presented as largely apolitical and increasingly global, the field is underpinned by a deep ethnocentrism. This spurious neutrality masks a theoretical framework still shaped by the colonial logic of a scale of cultures led by the 'western' world.

The author argues that the meaning and use of design objects cannot always be fully explained through scientific principles alone. These sentiments were echoed by arts curator Okwui Enwezor, interviewed following his curation of the international art fair *Documenta 11* (2002) under the theme of complex, global knowledge systems:

> The historical tendencies of Modernism in Europe show an antipathy to the 'primitive' and his functional objects of ritual… The value of the global paradigm for me - if it means serious interaction with artists and practices that are not similarly circumscribed - is in its allowance for greater methodological and discursive flexibility (Griffin 2003: 4).

Challenging design's notion of materiality and functionality is one way to engage the limits and blind spots of the professional practice of design history.

The notion of the 'auditory object' borrowed from the field of neuroscience allows us to apply existing object theory within design history to non-visual objects – it shows us that while auditory phenomena have a source, they can also be perceived as shapes with distinct aesthetic characteristics. The ear can perceive textures such as a buzz or a bleat; patterns such as a repeated shrill pitch; the composition of soundscapes, whether dynamic or centralized; and the boundaries of sound as it is configured within particular architectural or natural settings. Furthermore, metaphysics is reformulated in design terms by considering it as a class of function attached to an object – that is, the object's metaphysical capacity is considered alongside its technical operation and its social role. The voice-disguiser's capacity to manifest spirits is a function of both its designer's intent and its use. Taken together, these offer the design historian a toolkit for understanding both the function of supernatural manifestation and in this case, it sonic form. It is the hope of the author that these methodological approaches may be of use to future studies which deal with design and performance, design and noise-making, design and the immaterial or supernatural.

Given the various strategies outlined by global design historians, the Boki voice-disguiser presented a number of options in terms of its analysis. One might have traced the voice disguiser from its origins to its current site in the Pitt Rivers Museum by way of British colonial officialdom as a means of charting colonial avenues of exchange. Alternatively, one might have studied the ideological structures of the Pitt Rivers Museum as an exhibition space driven by the Imperial impulse to grasp the world. This essay does not attempt a grand global narrative, but offers a small conceptual gesture that may contribute to opening up the theoretical frameworks of global design history. The Boki voice-disguiser asks of the historian fundamental questions as to the nature of the designed object. It questions the way we categorize familiar and unfamiliar objects and the implications that these categorizations have on our own concepts of reality. Perhaps most fundamentally in this context, it highlights the subjective frameworks through which we attempt to understand the global[12].

"Zzznnnnnnnnnnn Znnn"

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[12] Here the term is used not as a condition or even a contemporary problem, but as an *approach* to studying design history that considers production in all parts of the world with equal interest.

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