African Philosophy-Based Ecology-Centric Decolonised Design Thinking: A Declarative Mapping Sentence Exploration

Ava GORDLEY-SMITH
University of Wales, Trinity Saint David
avagordleysmith@gmail.com
https://orcid.org/0009-0001-6217-9750
&
Paul M W HACKETT
Department of Philosophy, NNAMDI AZIKIWE UNIVERSITY, Nigeria
Institute of Education and Humanities/Psychology Department, PRIFYSGOL CYMRU Y DRINDOD DEWI SANT, Cymru
Health & Wellbeing Research Institute, UNIVERSITY OF SUFFOLK, England
School of Communication, EMERSON COLLEGE, USA
paul@hackett.prof
https://orcid.org/0000-0002-9365-8084

Abstract
This paper uses a declarative mapping sentence approach to explore and amend *design thinking* - a project development and management technique recently disseminated in Africa. We contend that there are problems in the manner in which design thinking has been exported to Africa, namely, that design thinking is rooted in the linear, binary, human-centric systems present in Western philosophy and that the exportation of design thinking is potentially neo-colonial. We, therefore, attempt to ameliorate these difficulties by decoupling design thinking from its Western philosophical perspectives. We will also seek to broaden the understanding of design thinking by adopting the more communitarian perspective found in philosophy that has been developed in Africa. The amended form of design thinking we present considers the user's existential paradigms and facilitates a flexible and reflexive process void of deliberate finality. Furthermore, we claim that amending design thinking's philosophical foundations to incorporate a communitarian perspective has the potential to make design thinking more ecologically-centric.
Keywords: Design Thinking, African Philosophy, Conversational Philosophy, Facet Theory, Declarative Mapping Sentence, Decolonization, Environmentalism

Introduction
For centuries, scholars have grappled with, and attempted to understand human-creativity. Due to the desire to comprehend and appreciate creativity, many attempts have been made to encourage and guide the creative process. In recent decades, some scholars have attempted to assist creative processes by conceiving creative thinking as an iterative process that progresses through a series of steps. This method and ideology have been termed design thinking (KIMBELL, 2011). According to

David Kelley, the founder of the design firm, IDEO, and Tom Kelley, "Design thinking is a way of finding human needs and creating new solutions using the tools and mindsets of design practitioners. When we use the term 'design' alone, most people ask what we think about their curtains or where we bought our glasses. But a 'design thinking approach' means more than just paying attention to aesthetics or developing physical products. Design thinking is a methodology. Using it, we can address a wide variety of personal, social, and business challenges in creative new ways" (IDEO, Online). Design thinking's broad method applications may be exemplified in everything from assisting in the creation of prominent companies like Airbnb and Uber Eats, to developing clean water and sanitation experiences in India (BROWN, 2010).

Design thinking was founded within Western positivist philosophy and exercised under Western philosophical and cultural principles. At its core, design thinking is a way of creating and executing thoughts. Whilst not intentionally damaging, by concentrating on human creative processes, design thinking is based on human-centric notions that may be destructive to non-human animals and the environment. It is possible to argue that when things are conceived in the world within a human-centric purview and without consideration of ecological impact, the outcomes of such things are prone to have an intentional or unintentional negative effect on the ecological whole. For instance, in the highly creative arena of the fashion industry, the adoption of a human-centric process has had a very negative unintentional ecological impact as whilst the intention is not to harm the planet, this industry produces 10% of humanity's carbon emissions and is the second-leading consumer of the world's water supply (WORLD ECONOMIC FORUM, 2020).

Our original objective in conducting this research was to explore the possibility that conceiving of design thinking within an African philosophical framework may result in a more ecocentric form of design thinking. During this research, however, we became aware of Design Thinking's fairly recent and fervent exportation to, and implementation within, the African continent[1]. Our research began to naturally expand beyond applying African Philosophy to design thinking and to turn toward discussing and critiquing the implications of exporting a Western way of thinking, problem-solving and creating within a non-Western world. This dynamic gave rise to a sense of philosophical neo-colonization, a concern that we wanted to explore further. We did not want to solely export notions of African Philosophy for the benefit of a philosophically Western model, but rather to wrestle with the realities of design thinking concerning its potential use in an African context with theoretical and applied considerations. Simultaneously, it was our wish to examine the impacts to and possibility of an ecocentric form of design thinking.

---

[1] We emphasise the point that Africa is a continent which constitutes a vast area of over 30 million square kilometers and some 54 countries. To speak of a philosophy that is representative of such a diversity is insulting and naive. However, in this essay we will use the term African philosophy, not in a reductionist sense but to indicate the many philosophies that have developed on the continent in the post-colonial era based on relational methodologies.

This brief paper will begin by considering the relationship between design thinking and ecological considerations. Following this, we will present rudimentary aspects of the Western philosophical underpinnings of design thinking. Next, we will selectively introduce philosophies that have originated within Africa and, specifically, conversational philosophy, which we suggest is a form of African philosophy that has the potential to unshackle design thinking's from human-centered and Western philosophical constraints. Next, we address the methodology of the declarative mapping approach and offer this as an approach for explicating the amalgamation of design thinking and conversational philosophy in an ecologically-centric form. Finally, we present a declarative mapping sentence that demarcates design thinking based upon Okwu and reflexive iteration that moves beyond synthesized thought.

Throughout the paper, our objective is to explore a more intrinsically ecology-centered approach to design thinking and open a discussion concerning the philosophical impacts of exporting and implementing a traditional Western-rooted form of design thinking within Africa.

Design Thinking and Ecology

We start our paper with a brief introduction to design thinking, which, whilst numerous institutions may be identified as having developed forms of design thinking, it was most popularized by Harvard Professor Peter Rowe in 1987 and later in the 1990s by the design firm IDEO (DAM n.d.n. 2021). IDEO describes design thinking on their website as, "A human-centered approach to innovation—anchored in understanding customer's needs, rapid prototyping, and generating creative ideas—that will transform the way you develop products, services, processes, and organizations" (IDEO, Online). IDEO has made substantial strides in mainstreaming and systematizing the creative process and offers designers a model and method for creation and creative problem-solving. Design thinking is utilized globally, taught in many of the most rigorous university design programs, and is non-industry specific. While the current design thinking model requires users of the approach to employ moral considerations for human-to-human empathy, it segregates humans from ecology concerns and thus privileges human dominion over ecology.

The Earth is in a climate crisis due to human activity. Pollution, deforestation, oil drilling, species and biodiversity loss, and fracking are large culprits (KLOCKNER, 2015) and these are only the tip of the iceberg of environmental woes. These activities exist through human design. While global efforts have been proffered in an attempt to halt such destruction, conversations appear desultory[2]. Conversely, sustainable practices are trending, and companies

---

[2] There are literally thousands of examples of the dearth of conversation leading to progress in the context of conservation and other environmental issues. For an excellent example of the meager successes that have been achieved, and the vast scale of current ecological destruction, the interested reader is guided to Gibson (2022) who provides a detailed review of the plight of migratory birds and specifically the common swift (*Apus apus*).

and their designers are making climate pledges. However, such practices, it may be argued, are not having enough impact in favour of protecting and restoring our planet. According to a recent study by the Ellen MacArthur Foundation, 80% of an object's environmental impact is created during the design phase, yet the majority of designers are designing sustainable solutions with a human-centric (rather than an ecocentric) model (ELLEN MACARTHUR FOUNDATION, n.d).

This paper is written under the premise of the problematic irony that designers are attempting to design sustainably by using a human-centric model. Human-centric models do not require the considerations necessary to make ecocentric sustainable decisions. In regards to our earlier example of problematic human centrism, if one was developing a new clothing brand using a human-centric model, the designers would most likely not be prompted to consider how their clothing might impact the environment, whereas if they were to use an ecocentric sustainability-focused model, the environmental impact would be a cornerstone of their decision making. Using a human-centric model to design for eco-conscious sustainability proves to be challenging and vulnerable to authentic ecocentric decision-making. This paper examines the skeleton of design thinking and expands it philosophically to address an ecological perspective. We also attempt to rid the Western-philosophical foundations underpinning design thinking and alternatively explore concepts from the philosophy that has developed over the last half-century within Africa. More specifically, we will use conversational philosophy as understood within the writing of Jonathan Chimakonam to alleviate these confines and offer an alternative perspective and reality (CHIMAKONAM, 2015). We will commence our review of the philosophical underpinnings of design thinking by tersely considering its Western philosophical basis.

Philosophical Perspectives

While numerous variations of design thinking models exist, a popular non-linear version, as proposed by Stanford Design School and IDEO, embodies the following stages: Empathizing, Defining, imagining, prototyping, and testing. These stages are shown linearly and are connected via arrows (see Exhibit 1). This model does not hold a space for ecology-centric considerations, is not reflective of the impact to and from one's mental schema, does not examine the whole as a cyclical iteration, and does not explore the larger impact of the design: we will, in the course of this paper, expatiate upon what we consider to be an omission. In this paper, we do not trace every potential philosophical foundation of design thinking, however we do touch on what we deem the most central philosophical tethers, in order to build context for our applied concerns, and further explorations.

Western Philosophy

Design Thinking was born in Western philosophy and the concepts of design thinking rest solidly within notions of polarity, linearity, and hierarchy. These underpinnings may lead to conceptual thinking such as, good-versus-bad, best-versus-worst, right-versus-wrong and beginning-to-end. The early design thinking models required the thinker to move in a linear process beginning from the left moving toward the right and ending with solution on the right. This design thinking

process developed ideas filtered through the mental hierarchical framework of good-versus-bad, best-versus-worst, right-versus-wrong, ultimately leading to a singular winning idea. On these understandings, the infant roots of design thinking can be drawn back to the Classical era of ancient Greek philosophers, such as Socrates, Plato, and Aristotle.

The iterative path to knowledge is threaded within the Socratic method. This method emphasizes the emergence of knowledge through dialogue and collaboration. Plato's consideration of participatory design is at the core of design thinking's human-centrism in its engagement with the participation and consideration of human needs and wants. Participatory design also supports the idea that creativity passes through the iterative stages of prototyping, and testing.

Aristotle's rumination moves beyond the connections to Plato and Socrates to engage design thinking on a finite level. Aristotle discusses the concept of 'techne', meaning, "To know by making" (WANG 2013, 4). This notion speaks precisely to the 'scientization' of design in the 1950s and 1960s and the design thinking goal of identifying a problem solution through design. Aristotle also contemplates the 'telos' of an object. 'Telos' as defined by Aristotle, is the 'meaning' of something. Whereas Plato might have said the participants determined the 'telos' of design, Aristotle believed that the 'telos' of creation was the creator. Therefore, the meaning of the design was determined by the designer. This is a key concept to keep in mind when considering who or what determines a solution. Aristotle also conceived that creative imagination was a key factor in being able to judge and identify in the future, therefore acknowledging the essential space for creativity within problem identification and solving (WANG, 2013). These elements closely denote the original goal and foundation to design thinking.

Centuries later, in the 4th BC, Saint Augustine famously said, "Fallor ergo sum,", "I err, therefore I am." This underlines the necessity for trial and error within the design thinking model and the idea that to live and exist is to make mistakes. This does not fault error, more so emphasises the nature of error. Saint Augustine's statement was then later amended and advanced by René Descartes as, "I think, therefore I am" (KEHR 1916, 594). This marks the weight of creative thought while also highlighting the Western emphasis on a narrow conception of sentients. It is our view that this arguably may speak to design thinking's evasive of considerations beyond the human being to encompass regard for other sentient and non-sentient beings. To briefly relate design thinking to slightly more contemporary Western philosophy, Immanuel Kant's perspective of creative thought, or rather, imagination is, "Conceived of artistic genius as an innate capacity to produce works of 'exemplary originality' through the free play of the imagination, a process which does not consist in following rules, can neither be learned nor taught, and is mysterious even to geniuses themselves" (KAUFMAN 2014, 2).

The aim of this brief paper is not to present a comprehensive review of the connections between Western philosophy and design thinking, although we hope the above-stated links provide an understanding of the basis for design thinking and chart potential avenues for further consideration. While we do not specifically note that the previously stated Western philosophical notions are ethically problematic, we do critically engage with these in terms of these being potentially limiting for

creating ecology-centrism within design thinking. Having presented some of the Western philosophical background to design thinking, we now turn to how design thinking has been exported to the African continent.

Design Thinking in Africa

The Hasso Plattner School of Design Thinking at the University of Cape Town, South Africa (d-school), began to teach design thinking courses in 2016. By 2020, the d-school had educated nearly 3500 students in design thinking, varying from introductory courses to more in-depth courses taught in partnership with diverse departments of the university (PEREZ, 2022). The students' countries of origin included Botswana, Cameroon, The Democratic Republic of Congo, Egypt, Ghana, Kenya, Lesotho, Morocco, Nigeria, Rwanda, South Africa, Tanzania; Uganda, Zambia and Zimbabwe. The d-school's website notes a quote by their Director Richard Perez, "Design Thinking is rooted in the question, 'What ought to be?' It's forward-looking and, crucially, forward-moving. It has its origins in the design discipline, but it has since evolved past innovating clever products and creating novel solutions – it's now taking aim at society's thorniest challenges – from education and poverty to gender-based violence. (D-SCHOOL AFRICA, Online).

The d-school describes, promotes, and utilizes design thinking as a means to increase holistic empathy and connects design thinking's philosophy to the African philosophy of Ubuntu - meaning, "I am because we are." Ubuntu is a means of underlining one's ontological relationship of who we are and how we relate to others. The d-school's website further states, "This resonates with the way design thinking is practiced at the d-school: embracing diversity; empathy; deferring judgment; building on the ideas of others. These are some of the design thinking principles that determine the way we work with people and appreciate the knowledge, skills and resources they represent. These principles enable us to co-create and collaborate with a broad range of people."

While we acknowledge this positive attribution to African philosophy, the d-school's seemingly limited human-centric considerations of Ubuntu stimulate our questioning and exploration of design thinking's relationship to Africa and the potential for Ubuntu to become a foundational component of design thinking and not a superficial addendum. We do not aim to examine the d-school. We only used this information as a base to begin our further considerations. We also note that Ubuntu is not the sole African philosophy we explore in connection to design thinking. However, the d-school's application is stimulating as it is a laconic acknowledgment of cultural differences between where design thinking originated and it is being applied.

Conversational Philosophy

We chose to expand the design thinking framework through the incorporation of an African Philosophy, and more specifically, we explored the potential relationship between that of conversational philosophy and design thinking. Conversational philosophy is a branch of philosophy that developed in the African continent, which embraces the co-existence of human beings with nature rather than the Western

notion of human dominion over nature. African philosophy largely opposes Aristotle's 'De Anima' and positions humans in nexus with non-human animals (KAI, 2017). African Philosophy's concept of 'Ubuntu' stems from the Nguni language and means, "I am because we are" (OGUDE 2019, 114-130). This exemplifies a philosophical alternative from that of Saint Augustine and Descartes and marks the importance of community and connection versus individualism. It is important to note that community, in much of African philosophy, includes ecology (DENSU, 2018). To exemplify the embracive breadth of African philosophy, Momoh wrote, "This metaphysical and spiritual underpinning of African philosophy is more of coexistence with nature, rather than conquest, more of collectivism, rather than individualism, more of holism, rather than atomism, more of synthesis, rather than analysis" (MOMOH 1989, 59).

Chimakonam's Conversational Philosophy may be argued to wrestle with notions akin to the Socratic Method. Conversational philosophy's arumaristic approach may be described as an iterative dialogical process toward knowledge emergence. Chimakonam, however, moves beyond mere thought synthesis and displays the opportunity for knowledge continuation, which in juxtaposition to current design thinking Models, offers an alternative way to conceive collaborative end goals. This appears to be an incomplete point waiting to be completed. Chimakonam also considers the personhood of the participants and terms this state of being before thought, "Okwu."

Nigerian philosopher Innocent Asouzu's theory of Ibuanyidanda may be described as a complementary reflection. Asouzu writes, "Being is that on account of which anything that exists serves a missing link of reality" (CHIMAKONAM, 2016, 3). Chimakonam describes Asouzu's Ibuanyidanda theory in the following words, "Ibuanyidanda seeks then to transcend the static, dichotomous ontological framework propounded by Aristotle into a complementary consciousness where every reality exists in a network of mutual complementarity. There is nothing that is meaningless, useless, or valueless. Everything exists for others and serves as a missing link in the gamut of reality. In doing this, Ibuanyidanda finds a way of overcoming the challenges of ontology" (CHIMAKONAM 2016, 4).

We have previously noted that we believe that the individualistic and human-centered roots of design thinking are insufficient to wholly address eco-social concerns. We now suggest that Ibuyanidanda theory, Ubuntu, Okwu and arumarism are four concepts from African philosophy that offer a broadened perspective within which to re-conceive Design Thinking. In the sections that follow we offer such an amalgamation for re-conception.

Method

In this research, we applied a declarative mapping [3] in order to sufficiently organize, understand and wrestle with the complex, multi-componential, and multivariate nature of this study (HACKETT and GORDLEY-SMITH, in press, 2022). The declarative mapping sentence afforded us the flexibility to explore the nuanced mereological categories while creating distance from our work to assist in clarifying and gaining momentum toward ideation. The declarative mapping sentence (DMS) below traces the exercise a person goes through during the design process and brings the African philosophical concepts of Okwu, arumarism, Ibuayidanda theory, and Ubuntu into this process.

Design Thinking: Okwu and Reflexive Iteration and Moving Beyond Synthesized Thought

Before the designer engages in design thinking the designer conceives a design thought; the construction of this thought is preceded by the existence of:

1. Okwu
- Natural Concepts
- Artificial Concepts

which shapes personal schemas to sense make the:

2. Framing
- past to present
- internal to external

thus leading the designer to a contextual space of:

3. Awareness
- self
- others

awareness that frames the designer's perception when posed (not sure about this word choice) with a design:

4. Proposition
- problem
- thought

---

[3] The declarative mapping approach is a form of Facet Theory, both of which were created within western philosophy. The authors want to clarify, that it is not their intention to impose additional theories rooted within western philosophy whilst attempting to explore alleviating western philosophy from design thinking. The declarative mapping approach, and the declarative mapping sentence are highly iterative and built on the premise of cyclical exploration. Therefore, the authors did not deem these research methods to ironically deteriorate their work.

- query
- unknown

adopting an:

5. Empathy
- human-centered approach
- ecology-centered approach

which may require:

6. Evaluate
- backward
- forward prospection

sparking the designer to feel:

7. Assess
- satisfied
- unsatisfied
- ambivalent

eventually leading the designer to conduct further:

8. Research
- internal observation
- external observation
- internal analysis
- external analysis

which may lead to:

9. Evaluate
- backward reflection
- forward prospection

allowing for the development of a point of view, suggesting the creation of:

10. Ideate
 - high degrees
- mid degrees
- low degrees

 of ideation which may require:

11. Evaluate

- backward reflection
- forward prospection

allowing for further development through:

12. Prototype
- learning from the/these idea(s)
- sparking (a) new idea(s)
- gaining confidence in (the) idea(s)

which may require:

13. Evaluate
- backward reflection
- forward prospection

eventually leading to the need to:

14. Test
- evaluate the idea
- refine the idea
- implement the idea

which may require:

15. Evaluate
- backward reflection
- forward prospection

offering the space for:

16. Affected Outcome
- continuation of knowledge emergence
- synthesization of thoughts
- achieving consensus
- reorientation of thought
- creation of a pause

which may require:

17. Evaluate
- backward reflection
- forward reflection

The DMS above begins with the 'Okwu' facet. This facet considers the personhood of the participant before engaging in design thinking and creates potential space and opportunity for further rumination of ecology-centric thinking. The second facet, 'Framing' considers the internal state of Okwu juxtaposing the external and/or the participant's past experiences to the present. The third facet, "Awareness" examines both self-awareness and external awareness. These first three facets consider the necessary background of the participant, the effect that has on the design, and the transition the participant must make from being a vessel of potential design thinking to actively design thinking. The fourth facet, "Proposition" marks the beginning of a traditional design model and is immediately followed by a facet phase, "Empathy." While the DMS shows both human-centric and ecology-centric empathy, this is only to mark our research, not to propose an option between the two and/or their segregation. Our sixth facet, "Evaluation" introduces the iterative facets which consider non-linear movement and the ability to flow freely from one state to another. These facets are carried throughout the remainder of the DMS. Our seventh facet turns back to the participant once more and considers the individual's assessment. This facet holds another space for ecology-centric measurement. The eighth facet, "Research" aligns with standard design thinking Models, which leads to the range Facet of, "Ideate." While both of these facets run parallel with contemporary design models, their elements note the individual's relationship to the stage and the potential impact of the individual on the design. Facets 12 through 15 once more pay homage to the design thinking norm but examine the arumaristic foundations of dialogical iteration. The DMS concludes with an arumaristic consideration for the outcome.

Whilst the explanation contained in the above DMS is compressed, it enables us to trace the potential impact of African philosophy on the design thinking process. It should also be noted that the step-wise ordering is not fixed and the process is not necessarily linear and the individual may engage in feedback and feed-forward maneuvers and enter and exit the mapping sentence at any point.

Discussion

The next stage of our research was to build out our DMS into a model while maintaining a reference to current design thinking models. Therefore, we stepped away from the usual notions of progression through traditional linear forms or figure-eights processes in the design thinking literature and developed a 3-D cyclical-loop cylindrex model (see Exhibit 2). This model is fully encompassing of ecological thinking whilst also showing the central permanence of ecology within the facets. We designed our model as a loop versus a traditional linear cylindrex (the linear cylinder is a typical arrangement found in facet theory-based mapping sentence research) to highlight the cyclical and non-linear nature of design thinking. Each facet is noted in the main model whilst the elements contained at each level of the cylindrex are seen in the amended and "zoomed-in" models (see Exhibit 3). It is important to emphasize that we do not consider our model to be at a finished point, however, we do find its current state to be a sufficient reflection of our findings and to sufficiently portray the relationships of facets and elements within our declarative mapping sentence.

We believe that adopting our model results in an expansion of the design thinking approach to allow for the incorporation of ecological concerns and a more empathetic perspective. Our model, therefore, results in the following updated description of design thinking:

> Design thinking is an **ecology and empathy-centered** approach to innovation—anchored in understanding holistic needs, rapid prototyping, and generating creative ideas—that will transform the way products, services, processes, and organizations are developed, organized, and managed.

Conclusion

In this brief paper, we initially explored the Western philosophical foundations of design thinking in order to unveil the constraints that adopting such foundations had structured the processes within design thinking, how it has been both conceived used in practice and how the very fundamental understandings of creativity as a linear process are restrictive. We then took time to offer a philosophical perspective that may be incorporated within design thinking that we believe alleviated some of the restrictions in the conceptual frameworks of design thinking. We achieved our aims of broadening design thinking to incorporate a more communitarian and eccentric purview by applying concepts from philosophy recently developed within Africa. It is our contention that the facets of this African-based philosophy that we brought into our model assisted in decoupling design thinking from linear, binary and human-centric systems. Moreover, by applying the Ubuntu concept of, "I am because we are" we allowed for the emergence of a holistic perspective and considerations regarding human creativity and environmental relationships within the context of the Anthropocene epoch. The amended model that we have developed and stated in our declarative mapping sentence considers personhood seen through Okwu and facilitates a flexible and reflexive process void of deliberate finality.

It is our intention in writing this paper to mark the beginning of a much larger body of research and stands as the first phase for both theoretical and applied research that aims to explore the utility of our model within design thinking practice. It is our ultimate hope that this research, and the research we are designing to be conducted later, will contribute to a more expansive discussion on sustainability practices and raise awareness of the ecological impact of design. Finally, design thinking is being implemented within the African continent in its traditional form. This includes the importation of Western perspectives and Western philosophy. We intend to question such intellectual colonialization and result in design thinking being developed in African countries that are developed from and reflect perspectives that are indigenous to the local people.

Exhibits:
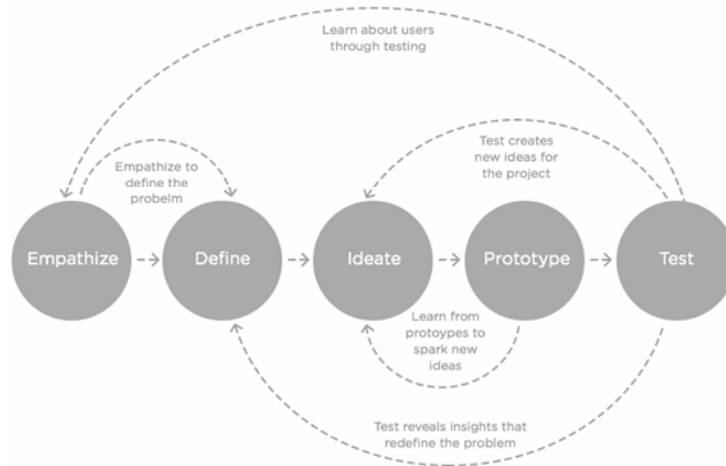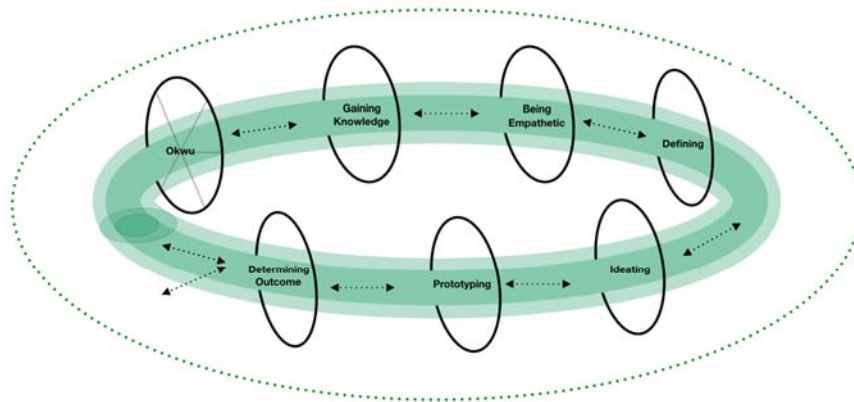

DESIGN THINKING:
A non-linear process

Exhibit 1.
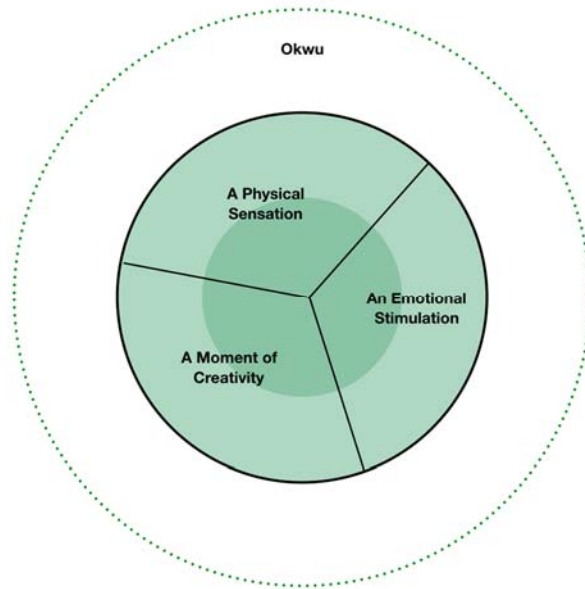
Exhibit 2.

KEY

Central Ecology

Encompassing/External Ecology

Exhibit 3.

*The authors declare no conflict of interest for this work

Relevant Literature

1. BROWN, Tim. & Wyatt, Jocelyn. "Design Thinking for Social Innovation". [Stanford Social Innovation Review], pp 1-2, 2010. https://ssir.org/articles/entry/design_thinking_for_social_innovation#

2. CHIMAKONAM, Jonathan O. "Conversational Philosophy as a New School of Thought in African Philosophy: A Conversation with Bruce Janz on the Concept of ›Philosophical Space". *Confluence: Journal of World Philosophy,* pp. 9-40, 2015. Vol 3.

3. CHIMAKONAM, Jonathan O. "Globalisation versus Ibuanyidanda ontology: confronting the tension between the "self" and the "other"". *Phronimon,* Pp 1-18, 2016. Vol 17. No 2. https://dx.doi.org/10.17159/2413-3086/2016/123

4. CHIMAKONAM, Jonathan O. [Ezumezu: A System of Logic for African Philosophy and Studies], 2019. Springer Verlag: Cham.

5. DAM, R. F., & SIANG, T. Y. "Design thinking: Get a quick overview of the history. The Interaction Design Foundation". 2021. https://www.interaction-design.org/literature/article/design-thinking-get-a-quick-overview-of-the-history. Web.

6. DENSU, K. "Omenala: Toward an African-Centered Ecophilosophy and Political Ecology," [Journal of Black Studies], pp 29–52, 2018. Vol 49. No 1. https://www.jstor.org/stable/26574543

7. D-School Afrika. "What is Design Thinking" . Retrieved October 27th, 2023, from https://dschoolafrika.org/what-is-design-thinking/ 2023.

8. GADE, Christian B. N. "What is Ubuntu? Different Interpretations among South Africans of African Descent." [South African Journal Of Philosophy], pp. 484–503, 2012. Vol 31. No 3.

9. GIBSON, S. [Swifts and Us: The Life of the Bird that Sleeps in the Sky London], 2022. William Collins: Glasgow.

10. EKANEM, Francis E. "On the Ontology of African Philosophy". [International Journal of Humanities and Social Science Invention], 2012. Pp 54-58. Vol 1. No 1.

11. ELLEN MACARTHUR FOUNDATION. "Recycling and the Circular Economy: What's the Difference?" How to Build a Circular Economy, (n.d.) https://ellenmacarthurfoundation.org/articles/recycling-and-the-circular-economy-whats-the-difference. Web.

12. HACKETT, P.M.W. and GORDLEY-SMITH, A. (2023) "An Exploration and Exposition of Paulin Hountondji's Philosophy Through a Declarative Mapping Sentence Approach," [Academia Letters], Article 5096. https://doi.org/10.20935/AL5096

13. HACKETT, P.M.W., GORDLEY-SMITH, A. "Describing Racist or Racialised Actions Using the Declarative Mapping Sentence Method," [Frontiers in Sociology: Race and Ethnicity], Vol 7. DOI 10.3389/fsoc.2022.779452

14. HACKETT, P.M.W. and LI, C. [Using Declarative Mapping Sentences in Psychological Research: Applying Facet Theory in Multi-Componential Critical Analyses of Female Representation in Science Fiction Film and Television], 2022. Routledge: London.

15. HACKETT, P.M.W. [Facet Theory and the Mapping Sentence: Evolving Philosophy, Use and Declarative Applications, (second, revised and enlarged edition)], 2021. Palgrave McMillan Publishers: Basingstoke.

16. HACKETT, P.M.W. (ed.) [Mereologies, Ontologies and Facets: The Categorial Structure of Reality], 2018. Lexington Books: Lanham, MD.

17. HACKETT, P.M.W. "Some Questions Regarding the Properties of the Declarative Mapping Sentence Within Facet Theory Ontology", [Academia Letters], 2021. https://doi.org/10.20935/AL3577

18. HACKETT, P.M.W. "A Reflexive and Adaptable Framework for Ethnographic and Qualitative Research: the Declarative Mapping Sentences Approach", [Academia Letters], 2021. https://doi.org/10.20935/AL999.

19. HANS, J.S. "Derrida and Freeplay Review of "Structure, Sign, and Play in the Discourse of the Human Sciences," in [The Structuralist Controversy; Of Grammatology], 1979. pp 809–826.

20. HATCHER, D. L. "Creativity and the Socratic Notion of Education." [The Journal of General Education], pp 105–115, 1984. Vol 36. No 2. http://www.jstor.org/stable/27796988

21. IDEO. "IDEO design thinking". Retrieved May 3, 2022, from https://designthinking.ideo.com/ 2022. Web.

22. HORSTHEMKE, Kai. "Animals and African Ethics," [Journal of Animal Ethics] pp 119–144, 2017. Vol 7. No 2. **https://doi.org/10.5406/janimalethics.7.2.0119**

23. KAUFMAN, Scott Barry. and PAUL, Elliot Samuel. [The Philosophy of Creativity: New Essays], 2014. Oxford University Press: Oxford.

24. KEHR, M. W. "The Doctrine of the Self in St. Augustine and in Descartes," [The Philosophical Review], pp 587–615, 1916. Vol 25. No 4. https://doi.org/10.2307/2178254

25. KIMBELL, Lucy. "Rethinking Design Thinking: Part I," [Design and Culture], pp 285-306, 2011. Vol 3.

26. KLOCKNER, Christian A. [The Psychology of Pro-Environmental Communication], 2015. Palgrave Macmillan: London.

27. METZ, Thaddeus, & B. R. GAIE, Joseph. "The African ethic of Ubuntu/Botho: implications for research on morality," [Journal Of Moral Education], pp 273–290, 2018. Vol 39. No 3.

28. OGUDE, J. [Ubuntu and the Reconstitution of Community], 2019. Indiana University Press: Bloomington. https://doi.org/10.2307/j.ctvh4zgdk

29. SEPPER, Dennis L. "Descartes," [The Routledge Handbook of Philosophy of Imagination edited by Amy Kind], 2016. Routledge Handbooks Online: Abingdon-on-Thames.

30. WANG, James. "The Importance of Aristotle to Design Thinking," [Design Issues 2013]; pp 4–15, 2021.Vol 29. No 2. doi: https://doi.org/10.1162/DESI_a_00206

31. VLĂDUŢESCU, Ştefan. "Six Steps of Hermeneutical Process at H.-G. Gadamer" [Postmodern Openings] pp. 161-174, 2018. Vol 9. No 2. https://doi.org/10.18662/po/26

32. WORLD ECONOMIC FORUM. "These facts show how unsustainable the fashion industry is," Retrieved January 31, 2020. https://www.weforum.org/agenda/2020/01/fashion-industry-carbon-unsustainable-environment-pollution/ Web.

This issue honours our Assoc. Editor and a second-generation member of the Calabar (Conversational) School of Philosophy (CSP): **Prince. Prof Mesembe Ita Edet (1965-2023)**