

Research in Practice

Student Name: Ross Downie

P Number: 2312833

**Programme of study: Product & Furniture
Design**

Module: ADAD5004

Word Count:

Tutor's Name: Julia Lockheart

Product design is more than shaping objects, it is about shaping meaning, use, and perception. This essay will explore three keywords. Affordance, function, and framing. Each offers a lens through which to understand the relationship between design and users, systems, and culture. Drawing from Gibson's ecological theory of affordances (1979), the text investigates how user-object relations are not fixed but contingent and contextual. These ideas are furthered through Norman's (1988) adaptation and critiqued by Wood (2022), which pushes for a systems thinking approach. Function is examined philosophically and historically, from design principles of Dieter Rams to Flusser's (1999) interpretation of objects. The concept of framing is then examined via thinkers like Lakoff (2010) and the practice of Abloh, revealing how design constructs not just objects, but narratives, ideologies, and futures.

In Gibson's view, animals and humans perceive the world through active engagement with their environment, becoming attuned to variables and invariants of information available through interaction. This theoretical framing culminates in his concept of *affordances*, which describes the actionable properties of the environment in relation to an agent's capabilities (Greeno, 1994).

What makes affordances unique is that they are relational. They do not exist in objects or in the user's perception, it is the interaction between the two. A ledge may afford sitting to a human, climbing to a child, and nothing at all to an ant. The context of the environment and the organism's physical capabilities is the structure of affordance. Not one or the other alone.

While affordance was first coined in an ecological view, it was later co-opted to be interpreted in a prescriptive way for product design and human-computer interaction. (Norman, 2013) focused on perceived affordances. This is how a user understands an object's function based on cues of its form, often visual or tactile. A handle suggests pulling, a button suggests pressing. This interpretation has become foundational in design teaching, especially within user-centred methodologies. However, as Wood (2022) notes, Norman's take flattens Gibson's original theory into an "aesthetic signalling," reducing its ecological and systemic nuances into surface-level usability.

Gibson's original ecological approach offers richer soil for design in general. His model rejects anthropocentric (human-centred) thinking. A brick, for example, affords building, throwing, stacking, or even drawing. It all depends on user intention and context. Where Norman's view seems binary, Gibson's affordances become a set of potential relations, not singular use cases.

Affordances can challenge the conventional form-function thinking. Consider Naoto Fukasawa's CD player (Fig. 1). The pull cord interface echoes something some users would be familiar with, but with an unusual outcome. It challenges the user's expectations through its echoing of a bathroom fan. The affordance is partly mechanical

and partly cultural. The object does not explain itself but triggers an association. Design, in this instance, acts as a prompt rather than an instruction manual.



Fig 1. Naoto Fukasawa (1999), Wall mounted CD player

Relationality is especially evident in furniture and spatial design. Enzo Mari's Autoprogettazione project (Fig. 2) provides open-source plans for DIY furniture that afford the usual sitting and eating, but also the participation in the act of making. While affordance is embedded in the object, it is also in the system that enables the user to build. It allows the user a closer relationship with the object, enabling the user to build, adapt, and question it. Phillipe Starck's Juicy Salif (Fig. 5) conversely frustrates functional affordance in favour of aesthetics. It is a borderline unusable lemon squeezer but affords conversation and critique through its loud aesthetic provocation. This shows the flexibility of affordances in design and the unconventional power they hold.



Fig 2. Enzo Mari's Autoprogettazione project (1974), Table

This wider framing of affordance is central to John Wood's metadesign approach. In *Metadesigning Designing in the Anthropocene*, Wood (2022) argues that design should shift from prescribing use to enabling transformation. In this sense, affordances are not fixed properties but evolving possibilities. This opens the possibility of designing not just objects but systems that support adaptation, appropriation, and re-use. Wood equates abundance not in the form of sheer quantity but the combination of multiple aspects, and how design needs to shift to this way of thinking. For example, sodium and chlorine separately are both toxic, but when combined, they make salt.

Affordances also reveal how design can participate in exclusion. The Camden bench (Fig. 3), widely used in public spaces across London, is a notorious example of 'hostile design'. Its sloped surface and 'armrest' placement allow sitting but not lying down. Specifically targeting rough sleepers and the homeless. Affordance, in this instance, becomes a mechanism of control and is used to limit the user rather than empower. Similarly, objects designed without consideration of users' disabilities fail because affordances have been misaligned with real-world diversity. For example, kettles with impractical, hard-to-grasp handles, or heavy doors with no clear pulling point.



Fig 3. Camden Bench (2012)

Affordances are not necessarily politically neutral either. The way that “Technology mediates our behaviour and our perception, and thereby actively shapes subjectivity and objectivity.” Verbeek (2005) argues. Technology, thus, design mediates not only behaviour but values. Whilst a plastic bottle may afford convenience, it also encourages disposability. Affordances shape not just use but consequences.

Affordance is not merely a function or feature, or a signal of semiotics. It is a dynamic, contingent property of design that becomes apparent through interaction, context, and use. It embraces situational thinking and rejects universal answers.

“Functionality refers to whether a design works and helps the users meet their goals and needs.” (Interaction Design Foundation, 2024). Function in design discourse is often used without deeper thought, treated as given or common sense, even.

Function guides design decisions from the earliest stages. Designers analyse user needs, technical requirements, and contextual constraints to ensure that the object performs efficiently and appropriately. Materials, form, and construction methods are chosen based on what the objects need to do. In this sense, function is a constraint, but it is also a creative driver. It shapes physical affordances, interface, and geometry. The ergonomic curvature of a handle or the spacing of buttons on a dashboard is all a response to functional goals.

Layers of function must also be considered. In roles beyond physical utility, objects must now serve cognitive, emotional, and cultural roles. For example, a smartphone case must protect the device (technical function), signal taste (aesthetic function), and offer psychological reassurance (emotional function). Designers navigate all these simultaneously. Function now means understanding not only what a product does but what it means to do.

Function is incredibly important for a product's lifecycle. From assembly and maintenance to repair and disassembly. Products must be functional in every stage of their life. For a product to be functional in the context of sustainability, it must be easy to disassemble and easy to recycle. All these factors are important to the circular economy. Function must keep up with the ever-evolving needs of consumers. This includes modularity, material transparency, and long-term ecological impact.

Historically, function was hailed as the foundation of integrity in modernist design. Dieter Rams shows us from his designs that are unobtrusive and simplified that good design, at least from his perspective, puts function first. Rams' design manifesto, *Ten Principles for Good Design* (1980), insists that "...it has to satisfy certain criteria, not only functional, but also psychological and aesthetic." (Jong et al., 2017). Rams argues that the role of the designer is to simplify and clarify through purposeful form. Countless examples of his work at Braun echo his principles like the SK4 Record Player (Fig. 4). The use of a transparent lid and clean, simple lines was not to aestheticize but to express function visually. The product succeeds in being aesthetic through its dedication to functionality.



Fig 4. Braun SK4 Record Player (1956)

Vital to this philosophy is the phrase “form follows function”, first coined by architect Louis Sullivan in 1896. This phrase is often misunderstood, Sullivan’s original meaning “form ever follows function” (Sullivan, 1896), as it was not originally a call for visual austerity. When writing about skyscrapers, he described how form should come organically from the purpose of a building, as a tree’s form is derived from its biology. Its meaning is about integrity, not minimalism.

This was later clarified by his mentee Frank Lloyd Wright, who stated, “form and function are one” (1908). Clarifying the symbiotic relationship between the two. This is evidenced by his work, like *Fallingwater* (1935), which showcases a deep synthesis between function, material expression, and ultimately aesthetic coherence. From Wright’s work, we can see that the form was inherent to the function.

Ultimately, this was misinterpreted in mid-century design. Form follows function was reduced to a visual style used to justify sterile, over-engineered objects devoid of nuance, unlike the work of Dieter Rams. What was proposed by Sullivan and Wright was a philosophical alignment between purpose and expression, not a strict design rule. It is vital to understand that form and function are inseparable.

Postmodern thinkers began to unravel the rigidity misinterpreted by modernists. Vilém Flusser, in *The Shape of Things* (1999), argued that function is never purely technical. He suggests that objects are “texts”, each embedded with rich ideology. A toaster is not just a device, it reflects domestic culture, ritual, and meaning. For Flusser, function is

symbolic. This can be used to explain why the aforementioned Philippe Starck's Juicy Salif (Fig. 5) can be considered design despite its shortcomings in being able to juice lemons well. Its function is more conceptual. It provokes thought, reframes domestic rituals, and is a critique of consumption. It does not 'fail' as much as it redefines success.



Fig 5. Philippe Starck's Juicy Salif (1990)

Function shifts according to context. A stool may function as seating in one space and as a side table in another. This flexibility could undermine any fixed notion of what function truly is. As discussed, a handle doesn't function in isolation, but the forethought to include one is undoubtedly a product of function.

Take IKEA's Billy bookcase, its function could be perceived as storage, but it is more than that. It is flat pack efficiency, global distribution, and user agency. Even its

assembly manual is part of its function, with its lack of need for language and communication through illustration. Contemporary design stretches the meaning of function through its whole design approach, not just in isolated performance.

In this light, function is not a fixed quality. It is dynamic and contextual. In product design, function is the framework. It defines problems, shapes decisions, and sets the parameters of success. Whilst function is not everything, without it, you do not have design but sculpture. With it, design becomes credible, usable, and culturally resonant.

Goffman (1974) defines frames as the structures that guide individuals in perceiving and interpreting experiences. A design does not exist in a vacuum. It exists in a frame. Cultural, material, and rhetorical. That frame carries weight.

In product design, framing operates on multiple levels. In practice, it is embedded in branding, affordances, packaging, and materials. A recycled plastic might be framed as an ecological innovation or a hollow gesture, depending on its narrative and context. Norman's (2013) human-centred design principles highlight how usability is affected not just by affordances but also by how a system is perceived. Perception is a direct consequence of framing. Apple's design philosophy is a textbook case in framing. They utilise minimal interfaces, slick packaging, and an austere retail environment. These factors frame the product as smart, premium, and high-tech, even if its functionality is no more advanced than its competitors.



Fig 6. Apple Storefront (2023)

When moving into political ideological territory, the stakes are raised. Lakoff (2010) critiques how “green design” is often reduced to aesthetic cues like brown paper, serif fonts in ‘Why it Matters How We Frame the Environment’. It shows that some problems are either too big to tackle or are often easier to reframe. “Designers working within a dominant system are always participating in a discursive framing of what problems are worth solving and what solutions are desirable.”

Vilém Flusser, in *The Shape of Things* (1999), pushes this further by positioning the designer as a cultural operator, not just a problem solver. He argues that the design of objects produces culture itself. Often, to frame a product is to frame a way of living. This can be viewed as positive or negative. A good example of this is how smart home devices are framed around convenience and automation, rarely as tools of data extraction and surveillance. Framing, in this instance, does not just sell products but worldviews.

Virgil Abloh's whole design practice flourished around cultural knowledge. Abloh's entire practice was built upon framing and context. His “3% approach” in which he alters a familiar design slightly to change its meaning. These minor changes make for huge perceptual shifts. His use of quotation marks in his work, like **“SCULPTURE”** or **“AIR”**, draws literal attention to framing itself, marking the object as an artefact, a joke, or critique depending on its original context. In terms of semiotics, Abloh manipulates the connotation of objects without touching their denotation. A Nike shoe is still a Nike shoe, but once a zip tie and Helvetica text are introduced (Fig. 7), it becomes a commentary on value, consumerism, and authorship. In Barthesian terms, Abloh is playing with myth-design as a cultural message.



Fig 7. Left regular Nike Air Jordan, Right Abloh Nike Air Jordan (2017)

This strategy is not exclusive to Abloh and is visible in the work of critical and speculative designers. Superflux's mitigation of Shock reframes design to provoke and imagine, not to solve. The project reframes everyday domestic objects within a post-climate collapse (Fig. 8). This project demonstrates that reframing is not always abstract. It is a tangible tool to shift perceptions and encourage discourse about issues.



Fig 8. Superflux's Mitigation of Shock (2018)

In practical product design, framing governs how an object is positioned in culture. Consider how the same chair can be considered a utilitarian object, a modernist sculpture, or a political statement. It all depends on how it is framed. By the designer, where it is shown and how it is presented. Abloh's IKEA "MARKERAD" collection reframed everyday domestic goods as art objects through the high-profile collaboration with the designer. The function of the items did not change, but the framing altered their perceived value and cultural role. This showcases the power held by designers in the consumer goods market.

Framing is then not peripheral but instead the centre of design. It structures the meaning, reception, and impact of the products. It can influence trustworthiness to users, ethical interpretation, and long-term cultural relevance. As Ezio Manzini (2015) notes in *Design, When Everybody Designs*, important things like social innovation rely heavily on framing. Tools must be positioned as empowerment instead of charity.

Framing is a critical practice within product design. It influences what is seen, understood, and accepted. Framing enables the designer to reinforce narratives or subvert them. Abloh shows us that context is the content.

To conclude, affordances are mainly rooted in perception, what an object signals to a user through its physical form. Function, on the other hand, is based on intention, what the designer meant the object to do. Framing is about interpretation, how the object is perceived and understood within a culture or a narrative context.

These differences matter. A door may afford pulling, be designed to push, and be framed with signage as “restricted”. Affordances, function, and framing link through the way they each mediate the way users understand and interact with designed objects.

While affordances deal with immediate, perceptual cues. Function speaks to intended use. Framing shapes the narrative that surrounds an object, including its affordances and function. A single object can suggest one action (affordance), be designed for another (function), and be interpreted differently depending on its framing. The interplay between the three shows that design does not move in one direction but is a dialogue. Objects are not interacted with but read shifting across contexts.

From the relationships laid out between the keywords, it opens potential for research into the differences between cultures and how they view function. Or the balance between the keywords and the effect on the trifecta when one or more are disrupted.

The two potential research questions are:

How do cultural frames shape what is seen as ‘functional’ in different social or economic contexts?

Is good design a balance of affordance, function, and framing, or the deliberate disruption of one or more?

Bibliography

Goffman, E. (2010) *Frame analysis an essay on the organization of experience Erving Goffman. with a new foreword by Bennett M. Berger*. Boston: Northeastern Univ. Press.

Greeno, J.G. (1994) *Gibson's affordances*. Estados Unidos: American Psychological Association.

Jong, C. de et al. (2017) *Ten principles for good design: Dieter Rams: The jorrit maan collection*. Munich: Prestel.

Lakoff, G. (2010) *Why it Matters How We Frame the Environment*. Taylor & Francis Group.

Manzini, E. (2015) *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. S.l.: MIT PRESS.

Norman, D. (2013) *The Design of Everyday Things* . Massachusetts : MIT Press.

Sullivan, L.H. (1896) *The tall office building artistically considered*. J.B. Lippincott Co.

Verbeek, P.-P. (2005) *What Things Do: Philosophical Reflections on Technology, Agency, and Design*. University Park, Pa: Pennsylvania State University Press.

What is functionality? (2024) *The Interaction Design Foundation*. Available at: <https://www.interaction-design.org/literature/topics/functionality?srsltid=AfmBOoqxPhhTfL0zEBhZhzQkJ1Wszv1KSR6DnpV1pLb5D2jFQUkiSvPt> (Accessed: 08 May 2025).

Wood, J. (2022) *Metadesigning Designing in the Anthropocene*. S.l.: ROUTLEDGE.

List of Figures

Fig 1. Naoto Fukasawa (1999), Wall mounted CD player

Available at: <https://naotofukasawa.com/projects/540/>

Fig 2. Enzo Mari's Autoprogettazione project (1974), Table

Available at: <https://www.casatigallery.com/products/enzo-mari-table-dite-autoprogettazione/>

Fig 3. Camden Bench (2012)

Available at: <https://www.ianvisits.co.uk/articles/the-camden-bench-19342/>

Fig 4. Braun SK4 Record Player (1956)

Available at: <https://braunaudio.de/en/snowwhitecoffin-sk4-dieter-rams-hans-gugelot-design-moma/>

Fig 5. Philippe Starck's Juicy Salif (1990)

Available at: <https://uk.alessi.com/products/juicy-salif-citrus-squeezer>

Fig 6. Apple Storefront (2023)

Available at: <https://www.apple.com/uk/retail/theoracle/>

Fig 7. Left regular Nike Air Jordan, Right Abloh Nike Air Jordan (2017)

Available at: <https://mysportsshoe.com/air-jordan-1-chicago-vs-air-jordan-1-off-white/>

Fig 8. Superflux's Mitigation of Shock (2018)

Available at: <https://superflux.in/index.php/work/mitigation-of-shock/#>