

# Insights from obsolescence: The interpretive potential of skeuomorphs

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## Abstract

This paper proposes a qualitative methodological framework grounded in the interpretation of skeuomorphs. Scholarly attention to this phenomenon has largely come from the spheres of archaeology and design/technology. Drawing on Benjamin's ideas about the interpretive scope of objects, I propose that skeuomorphs reflect the social conditions of their creation and can therefore be the starting point for generating a series of contemporary sociological insights. The proposed framework is applied to two case studies for the purpose of clarification.

## Keywords

materialism, dialectics, skeuomorph, Walter Benjamin, obsolescence, hermeneutics

## Introduction

This paper is concerned with sketching out a methodological framework based on the interpretation of skeuomorphs. Skeuomorphs are positioned as imbued with both social meaning and traces of the social context of their creation – and therefore open to being read hermeneutically. Much of the existing research on the subject originates in archaeology. This paper builds on recent attempts in the wider humanities and social sciences to extend the meaning and dimensions of the concept – making a case for the particularly sociological applications and insights which may be generated from contemplating these objects. The skeuomorphs selected for consideration are therefore decidedly contemporary and ubiquitous – the mobile phone camera and the airplane. The framework sketched out in this paper is not conceived of as definitive, formal or prescriptive. Instead, this method is positioned as a set of general principles or considerations, designed to guide the interpretation of a given skeuomorph.

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The term skeuomorph was originally coined by Colley March (1890: p. 166) to describe ornaments which include structural features or characteristics from earlier versions.<sup>1</sup> Subsequent archaeological definitions have added clarity, depth and complexity – while tending to retain an emphasis on the criterion of a familiar object made in a new material (Schiffer, 2011: p. 79; Conneller, 2013: p. 120; Knappett, 2020: pp. 108–113; Frieman, 2021: p. 72). The wider deployment of the concept outside of archaeology – and the ongoing reciprocal dialogue between archaeology and these external disciplines – has also contributed further richness. Several scholars have emphasised that an entire object may be considered skeuomorphic, as well as merely discrete *features* (Hayles, 1999: p. 17). McCullough (2014: p. 50) observes that some features which in the prototype were structurally essential, may – in their skeuomorphic incarnation – be either an active hinderance, have ‘no practical purpose’, or be ‘vestigial’. This emphasis on vestigiality or functional obsolescence is stressed by scholars from a range of disciplinary backgrounds (O’Hara, 2012: p. 288; Taylor, 2007). A further development is the application of the concept beyond material objects – to include any *thing* made by people which harbours vestigial features, including representations in the digital realm (Bowie, 2020; Meng and Leary, 2020; Frieman, 2023), concepts (Hayles, 1999) and literary practices (O’Hara, 2012).

In short, there is no firm consensus definition of skeuomorphism, and recent attempts to extend the boundaries of the concept have yielded constructive results as part of an ongoing interdisciplinary dialogue. The present paper attempts to contribute to this development. For now, a working definition of a skeuomorph is: something which retains obsolete features from an earlier iteration. As will be seen however, this definition will require some clarification and amending as further dimensions become apparent.

We are surrounded by skeuomorphs, though they can easily go unrecognised – perhaps due to their mundanity and ubiquity.<sup>2</sup> These words were typed at a QWERTY keyboard, which was laid out in this configuration to prevent common pairs of alphabetically adjacent letters from sticking. This layout is retained on computer keyboards which no longer trigger mechanical levers. When saving drafts of this paper, I clicked the ‘save’ icon on my word processing software. Few people born after the mid-1990s will have saved data to a real floppy disc, which this icon represents.<sup>3</sup> The format of a ‘Top 40’ pop music chart originates in jukeboxes of the 1930s, which were equipped with a mechanism to capture the number of times each shellac disc (of which 40 was the standard capacity) was played (Osborne, 2012: p. 119). Prior to the invention of sewing machines which were powerful enough to stitch denim, rivets reinforced jeans at stress points due to the heavy wear they received from rural workers. The continued use of rivets is therefore skeuomorphic – and indeed, the wearing of jeans as a fashion rather than practical choice could be considered a sartorial-skeuomorph. Perhaps because new iterations are constantly being introduced, cars are particularly rich in skeuomorphic features. For example, in its original incarnation, the function of a hood ornament was to conceal the radiator screw-cap.

Although given a name by Colley March in 1890, skeuomorphs are found in the archaeological record left behind by the earliest *Homo sapiens* to settle in inland Europe after migrating from Africa (Conneller, 2013: p. 126). Wherever people make things, there seems to be a tendency to leave traces of earlier versions in skeuomorphic form. The

archaic features of a given skeuomorph clearly hold meaning for the communities which retained them. In the following analysis, skeuomorphs are conceived as being expressive of the social forces and social history that made them. They are carriers of arcane social meanings – indeed, meanings which may be initially obscured from the community itself. Viewed in this way, and shifting attention from ancient societies to our own – skeuomorphs can be the source of a range of contemporary, sociological insights. Indeed, I suggest that when approached in this manner, a skeuomorph can provide a form of guidance to the community which makes and sustains it. The interpretive framework sketched out in this paper is an attempt to systematically contemplate a given skeuomorph hermeneutically, in order to reveal the meanings with which it is saturated. A skeuomorph telegraphs an opportunity for a deeper exploration; highlights where to begin excavation; and – I will argue – suggests guidance to the community which makes it.

### *Literature*

Hermeneutics has periodically cross-pollinated with other philosophical strands which share its focus on interpreting human creations – most prominently for the purposes of the present paper, the Marxist tradition. In his critique of Hegel's idealism, Marx (1977: p. 64) conceived of religion as simultaneously 'an expression of real suffering and a protest against real suffering' – proposing that although the literal content is not strictly true, interpretation of religion generates a range of insights about human societies. That is, by approaching religion as an expression of human experience, we can reveal the social and material conditions which cause people to make and sustain a given religion (Hampsher-Monk, 1992: p. 493). Such interpretative dimensions also feature in Marx's later economic writings. In *Capital*, the commodity is conceived of as a 'social hieroglyphic' to be decoded (Marx, 2013, p. 49). Here, Marx (2013: p. 47) can be understood as extending the interpretative scope of religion to encompass any object made by people.

A preoccupation with interpreting human creations is a prominent feature of Benjamin's writing – which contains recurring themes of the tension between authenticity/mass (re)production and the radical expressive alternatives inaugurated by this shift (Benjamin, 2008; Schecter, 2007: pp. 89–90); as well as a methodological focus on interpreting objects (Benjamin, 2004). His ultimately unfinished 'Arcades Project' was concerned with deciphering the detritus produced by modernity – aspiring '[t]o read what was never written' (Hofmannsthal, as quoted by Benjamin, 2002: p. 416). Here, Benjamin (2002: p. 4) conceived objects – such as the eponymous covered 'passages' of nineteenth-century Paris – as manifesting 'the unconscious of the collective'. For Benjamin, any such thing made by people communicates the essence of the particular social, historical and material conditions of its creation, and is therefore a rich source for a hermeneutic reading (Buck Morss, 1997: p. 56; Steyerl, 2006). Although he began work on the Arcades Project in the early 1920s as an essay, it swelled in size, scope and ambition. At the time of his death in 1940, the main content was a series of thematically grouped notes, published in the Arcades Project as 'Convolutés' – dealing with multiple disparate motifs, spanning 'Iron Construction', 'Modes of Lighting' and 'Mirrors' (Benjamin, 2002: pp. 27–824). The fundamental approach Benjamin was developing

here involved curating these objects in novel combinations and presenting them in a manner which would generate ‘flashes’ of insight into historical truths for the contemporary audience (Benjamin, 2002: p. 852). Rephrased in Benjamin’s own esoteric terms, such objects are combined in order to assemble a ‘dialectical image’ which would generate a moment of ‘now recognizability’ – jolting the subject into a sudden moment of epiphany (see the Translator’s Foreword to Benjamin, 2002: p. xii; Loveluck, 2011: p. 174).

A fundamental challenge of any discussion of Benjamin’s planned approach or method for the Arcades Project is that the surviving document is merely a series of notes, outlines and quotations. In many respects, it is uncertain what Benjamin meant – or how he intended to deploy key ideas, concepts and methods. For example, Pensky (2004: pp. 177–178) has pointed out that the precise status, meaning and application of a term as central as ‘dialectical image’ is unclear – noting that the scattered references and allusions to dialectical images fall far short of a coherent theory. Therefore, although influenced and inspired by his ideas, the aim of this paper is not to undertake an ‘authentic’ Benjaminian analysis. Indeed, the provisional and ambiguous state of the surviving notes for the Arcades Project would make such an enterprise speculative at best. In considering skeuomorphs, the following merely draws upon – as a guideline – Benjamin’s assertions that human creations can reflect or manifest ‘the unconscious of the collective’; that they can therefore be approached as a source of sociological insight; and the aspiration to develop a methodological framework to facilitate this process.

A range of contemporary scholars from different disciplinary backgrounds have considered the relationship between humanity and the things we make – and the concurrent power dynamics. In her analysis of search engines, Noble (2018) demonstrates that the algorithms underpinning such technology are neither neutral nor objective. Instead, they manifest and reinforce prevailing power relations, as well as the values and prejudices of the people that design them. Similarly, in her efforts to refine the concept of affordance for sociological analytical purposes, Davis (2020) demonstrates that artifacts tend to reflect the social structure, biases and power relations of the society that creates them. She argues, however, that this arrangement is far from inevitable: we can contemplate and recognise such affordances in the things we make, and instead conceive new iterations which afford more adequate relations.

A distinct recent account is Bennett’s (2010) work on ‘Vibrant Matter’ in which she conceives of agency as spread across humans and objects. She coins the term ‘thing-power’ to describe ‘the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle’ (Bennett, 2010: p. 6). Bennett’s methodological considerations are particularly relevant for the present paper. She recognises that her work requires an excursion into uncharted methodological territory, and therefore embraces the necessity of innovation – such as speculatively theorising encounters between disparate material bodies, and an openness to cultivating a ‘sensory attentiveness to nonhuman forces operating outside and inside the human body’ (Bennett, 2010: p. xiv). Similarly, the present paper attempts to explore new ways of approaching objects, and new objects to approach. Moreover, following recent efforts to broaden the scope and

applications of skeuomorphism (Hayles, 1999; O'Hara, 2012) focus is extended beyond material objects – applying it to areas including concepts, sounds and relationships between humans and machines.

Scholarship drawing on the concept of skeuomorphism has greatly expanded in the last 25 years. Recent archaeological consideration has generated a range of insights about the way ancient communities understood the world around them, their values, and the meanings they attached to their actions. In her work focusing on ceramics found at Knossos, McCullough conceives of a skeuomorph as necessarily embodying the essential qualities or attributes of the prototype. She therefore suggests that skeuomorphs are able to 'provide some invaluable information about the value system of past societies' (McCullough, 2014: p. 53). McCullough (2014) proposes making a distinction between two types: 'aspirational' skeuomorphs imitate valuable items – by employing cheaper materials or production methods (e.g., a copy of a gold vessel made in clay). 'Preservational' skeuomorphs, on the other hand, maintain or make reference to a specific valued feature of the prototype, which are frequently associated with tradition or the original production method. McCullough (2014: p. 56) suggests that skeuomorphs of this type tend to evoke 'some idealized qualities of a time past, such as quality handmade craftsmanship, a "homey" feeling'. In contrast to the aspirational variant, preservational skeuomorphs are sometimes made in more expensive materials (e.g., a wooden crucifix pendant made instead in gold). Digital skeuomorphs which reference material objects (such as an envelope icon representing email) are viewed by McCullough as being of the preservational variety. Although her primary focus is on the ancient, it is of significance for the present paper that McCullough recognises the interpretive scope of skeuomorphs made by contemporary societies – briefly extending this analysis in order to contemplate the case of a skeuomorphic Monopoly boardgame, made in precious metals and jewels. She argues that – as an object which promotes the fundamental ethos of capitalist economics – this artifact 'represents a whole community's values and ideals' (McCullough, 2014: p. 56).

A prominent theme emerging from the archaeological tradition is the proposition that skeuomorphs have been used by earlier societies for mimetic purposes – such as in the service of 'sympathetic magic' (Knappett, 2002; Harrison, 2003; Howey, 2011; Conneller, 2013; Blitz, 2015). Influential in this respect is Harrison's (2003) work regarding the manufacture of tools made by Aboriginal peoples in Australia, in which the traditional material of stone was replaced with one introduced by European invaders – bottle glass.<sup>4</sup> His particular focus is a traditional tool called a 'Bondi point'. Although production of these stone objects ceased centuries previously, a Bondi point made in bottle glass was found in a midden, and dated to the early nineteenth century (Harrison, 2003: pp. 316–317). This object is something of an archaeological puzzle, as it is unclear why someone would make this archaic form in a new material introduced by invaders. Harrison (2003: p. 328) contemplates this skeuomorph in an attempt to understand how Aboriginal peoples may have experienced and responded to the early period of colonialism in Australia. He suggests that it can be read as a satire on relations between oppressed Aboriginal peoples and the colonial oppressors. That is, the person who created this object was using the technology of the oppressor (glass) to make a traditional form – thereby mimetically reordering power relations (Harrison, 2003: pp. 327–329). As

will be seen, the present paper develops a complementary though divergent perspective – emphasising the new purpose a skeuomorph is put to as an entry point from which to begin contemplating the community which made and retains it, despite its functional obsolescence.

A distinct attempt to understand ancient societies via the things they made is found in Conneller's (2013) work on shell beads. These objects were part of the 'broad cultural repertoire' of the first *Homo sapiens* to migrate to Europe; and the practice appears 'intermittently in Africa and western Asia between 100,000 and 40,000 years ago' (Conneller, 2013: p. 125). As people began spreading into inland parts of Europe where shells were unavailable around 40,000 years ago, this practice continued – though utilising alternative materials such as stone, antler and ivory which shared the essential 'lustrous' properties of shell. In some instances, these beads were worked to resemble their shell antecedents in shape and texture. Conneller (2013: p. 126), therefore, points out that these objects are 'the first skeuomorphs' (in the sense of being the oldest to be identified). She questions why a hard to access material such as mammoth ivory would be made to mimic shells and hypothesises that the conception of the nature of matter itself which was held by these early humans, contrasts with a modern scientific understanding (Conneller, 2013: pp. 127–129). The makers of these skeuomorphs were not trying to deceitfully pass off one material for another. Instead, Conneller's (2013: p. 129) interpretation is that the people who created these objects were proposing that both shell and ivory (or any material sharing the essential property of lustre, such as teeth), were actually fundamentally the same substance and of the same essence.

In recent decades, the concept of skeuomorphism has occasionally been drawn on by scholars from outside of archaeology – most prominently in three areas which will be briefly discussed in turn: literary criticism; design/technology; and posthumanist philosophy. This interaction has tended to follow a constructive and reciprocal dynamic: yielding insights for those disciplines working with the concept, while simultaneously elaborating and enriching it in return. In attempting to contribute to the philosophical/sociological applications of skeuomorphism, the present paper is conceived as operating in this wider tradition.

O'Hara (2012) has suggested that skeuomorphism should be understood as a factor in the evolution of various literary practices. For example, it is believed that end-rhyme in poetry was originally a mnemonic device which helped an individual to remember the content for future recitation. This form persists despite the development of writing systems and widespread literacy which render this initial purpose obsolete (O'Hara 2012: p. 289). In O'Hara's (2012: p. 288) analysis, the presence of features which are 'the residue of an obsolete function' is the fundamental characteristic of a skeuomorph – a perspective shared in the present paper.

Within design/technology the notion of skeuomorphism has been extended beyond material objects to apply to visual representations or digital manifestations. Recent research in this area has considered the contrasting approaches of digital 'skeuomorphic design' and 'flat design' (Bowie, 2020; Meng and Leary, 2020).<sup>5</sup> An example of 'skeuomorphic design' in this context would be a deliberately realistic depiction of an 'address book' computer icon, while a 'flat design' interpretation of the same icon would be stylised and distinctly two-dimensional in its rendering. Bowie (2020: p. 126) notes that the

shift away from skeuomorphic to ‘flat design’ began around 2012 and coincided with the launch of a new Microsoft operating system. Bowie (p. 133) links this development to the phenomenon of ‘esthetic obsolescence’ in which design trends feed into ‘the vast over-production and consumption of things’. In their work on ‘digital gambling machines’, Meng and Leary (2020) also highlight the potentially negative applications of skeuomorphism in the wider field of design. They discuss the tendency for skeuomorphic interfaces (such as digital depictions of dice), to give players a false sense of control over outcomes which are in fact determined by algorithms (Meng and Leary, 2020: p. 638).

A final notable deployment of the notion of skeuomorphism is Hayles’s (1999) work on Posthumanism. In her consideration of the development of cybernetics at the Macy conferences which began in the 1940s, Hayles analyses the role played by concepts such as that of ‘homeostasis’. Although of central importance during the initial phase of development of cybernetics, by the second wave the status of homeostasis had diminished. During the transitional period, Hayles suggests that homeostasis functioned as a conceptual skeuomorph. That is, it bestowed a sense of continuity to the new foundational concept of ‘reflexivity’ which superseded it, while simultaneously performing a regulatory role in restricting the impact of the replacement concepts on the developing field (Hayles, 1999: pp. 17–18). Hayles astutely observes the subtle and complex dynamic involved in this role of conceptual skeuomorphs acting as ‘threshold devices’ – recognising that the earlier concept leaves its mark on the new concept(s) and indeed, on the constellation of concepts that supersede it (Hayles, 1999: p. 17).

### *Why does a person or society make skeuomorphs?*

Several overlapping though distinct explanations for skeuomorphism can be identified across the literature, with each informed by particular disciplinary and definitional conventions. A common theme in archaeological studies is the foregrounding of the definitional issue of established forms made in new materials – with the effect of emphasising imitation and emulation. An influential account in this sense is Vickers and Gill’s (1994) study, in which some Greek ceramics are explained as copies of more expensive metal versions. More recently, McCullough’s (2014: pp. 51–56) distinction between ‘aspirational’ and ‘preservational’ skeuomorphs leads her to explain these types in terms of facilitating access to imitations of desirable items for lower status social groups, and evoking the qualities associated with the prototype, respectively.

A second archaeological strand has emphasised the role that skeuomorphs may play in the construction and distribution of power relations. Harrison (2003: p. 326) proposes that the creation of a skeuomorph could be understood as an act of ‘active physical memorialization of Indigenous identity’ – emphasising the potential purpose of skeuomorphs in attempting to mimetically subvert power relations (p. 327). Similarly, Knappett (2002: pp. 110–111) has considered the use of silver cups in conferring the status of Minoan social elites – and the potential purpose of ceramic skeuomorphs in mimetically subverting this dominance.

A distinct explanation focuses on the role played by skeuomorphs in times of transition – in facilitating the assimilation of newly introduced technology, forms or materials. Frieman (2021: p. 76) notes that skeuomorphs can serve the function of ‘rendering new

inventions familiar enough to be engaged with, valued, and manipulated in their own right'. Similarly, Taylor (2007) has posited the notion of 'skeuomorphic familiarization' to explain how passing through various iterations can ease the acceptance of divergent forms – an explanation which is also echoed in Blitz's (2015) notion of a 'skeuomorph anchor'. Indeed, it is this explanation of skeuomorphs as facilitating transition at times of change that Hayles (1999) evokes in terms of conceptual skeuomorphs.

A related though distinct version of the 'transition' explanation can be detected in design/technology considerations of skeuomorphism, where emphasis is placed on habit and familiarity. Bowie (2020: p. 131) notes that skeuomorphic design in computer operating systems was favoured in some circles, where it was perceived as enhancing 'usability'. A related explanation highlighted by Gorvett (2017) is that of 'path dependency' – in which new designs are confined by decisions and practices adopted in earlier iterations. For example, electric guitars continue to use a ¼-inch jack cable, which was adopted as a standard many decades ago. This standardisation is perhaps due to more mass adoption, rather than because no better technology conceivably exists.

Therefore, the QWERTY keyboard may have been retained due to the simple fact that several generations of typists had learnt on this layout, and relearning the skill would have been a great effort for a lot of people. The familiar layout may also have eased acceptance of computers as they gradually superseded typewriters. Perhaps the retention of the floppy disc icon can be explained by the difficulty of representing the abstract concept of 'save' pictorially. Possibly one or more of these explanations could account for the existence of any other skeuomorph. However, I propose that an additional and deeper process can be detected, with significance for how we understand the societies to which these objects belong. Although the above examples were selected for their simplicity, they all show that skeuomorphs are in fact not obsolete: each serves a purpose – it is merely not the original purpose. The provisional definition of a skeuomorph used at the start of this paper therefore needs revising. A more adequate definition is: *any human creation that retains ostensibly obsolete features from an earlier iteration, that reveal themselves as having taken on new, emergent purposes or functions*. This principle may manifest in multiple spheres including – but not limited to – material objects, abstract designs, a concept, idea or relationship.

The argument developed in this paper is as follows: communities retain and repurpose an obsolete feature because it holds meaning for them. Contemplation of the nature, character and quality of this new purpose provides a key to unlock fundamental insights about the community under consideration. Imbued within a skeuomorph are the social, historical and material processes that brought it into being and necessitated its retention and repurposing. I therefore propose a provisional framework by which a given skeuomorph can be hermeneutically read in order to yield insights about the social conditions of its creation. The culmination of this approach is the suggestion that a skeuomorph can potentially function in a manner reminiscent of Benjamin's 'dialectical images' in their ability to trigger moments of 'now recognizability'. That is, skeuomorphs manifest as an archetypal form imbued with 'transformative guidance'.<sup>6</sup> A skeuomorph is an instance of material-dissonance which invites our attention and suggests the presence of a deeper process to be uncovered.



In what follows, I propose an interpretive framework involving six discrete stages, via which a skeuomorph can be contemplated in order to provoke such insights. These stages are positioned as having a dialectical relationship – with further insights becoming apparent at each subsequent stage, and indeed inaccessible until each stage is passed through. This method is not positioned as prescriptive or exhaustive. Instead, this framework is conceived as stimulating and guiding a series of reflections on a given skeuomorph. The aim of the following section is to set out this framework in simple terms, punctuated with the example of the camera phone. The remainder of the paper is then concerned with applying this method to a further case study of the airplane.

### *The framework by way of an example – The camera phone*

‘All that once was directly lived has become mere representation’

– Guy Debord (2017: p. 12).

‘The photograph is digestion deferred...’

– Brian Eno (2020: p. 67).

The first stage of the proposed framework simply involves the identification of a skeuomorph or the skeuomorphic feature(s) of an object. In the case of my camera phone, taking a photo is accompanied by the skeuomorphic sound-effect of the shutter mechanism.

Stage 2 involves identifying the original purpose of this skeuomorphic feature – what it did in its original incarnation and why it was formerly necessary. This sound is a facsimile of the shutter mechanism involved in a single lens reflex (SLR) camera. The precise mechanism varies according to manufacturer and model. Several mechanical components are involved in making this sound, most prominently the retraction of the mirror box, and the movement of the ‘focal plane shutter’ (UCL, n.d.). In an SLR camera, the shutter sound was an unintended consequence of the mechanical components. Indeed, it can be safely assumed that manufacturers made efforts to dampen this sound, and that particular models with quieter shutter mechanisms were preferred for applications such as wildlife photography. In my camera phone however, any physical components are effectively inaudible, and the sound-effect can be turned off.

Stage 3 involves contemplating the emergent purpose of the skeuomorph. Having established that it is no longer necessary to perform its original function, the question becomes – what purpose does this feature serve in the new iteration? Although it is likely that the answer to this question is mundane, the relevance of this emergent purpose may accumulate in subsequent stages. My reading of the camera phone is that the sound is retained because it provides aural confirmation that a picture has been taken.<sup>7</sup> The sound of the locking mechanism on my car doors when I click the key remote performs a similar role.

Stage 4 entails building on the previous stage, in order to identify the surface level problem which the repurposed skeuomorphic feature anticipates. Although the problem revealed at this stage is likely to be superficial and mundane, it will foreshadow a deeper problem operating at the level of the wider community – to be contemplated in

the subsequent stage. In the case of the camera phone, the shutter sound-effect forestalls the banal problem of removing doubt over whether or not the picture has been taken. Had the camera phone not been preceded by SLR technology, it seems likely that designers would have anticipated the need to devise such a 'confirmation sound' in some form. Questions to be considered in order to contemplate the surface-level problem the skeuomorph addresses are: what would be the implication of removing this skeuomorphic feature? Does it solve or anticipate an imminent problem with the way the thing is used? What (superficial) problem would have arisen if the skeuomorphic feature had not been repurposed in this manner?

Stage 5 involves making inferences about the deeper, fundamental tensions experienced by the community that makes and uses this object. Based on the surface-level problem identified in the previous stage, what can be extrapolated about this community? Does it reveal anything essential about their values, fears and aspirations? My interpretation is that the emergent function of the skeuomorphic shutter sound in confirming a picture has been taken, hints at a deeper modern preoccupation with documenting the everyday and a concomitant alienation from the everyday. Indeed, this dynamic extends beyond digital photography to encompass our wider contemporary relationship with technology. The extent to which an image will lend itself to being posted on social media has – for some people – become a key consideration in choosing a restaurant (Mackie, 2018). A now common sight at concerts is audience members photographing/filming the performance rather than watching it in real time (Hann, 2013). The accessibility of the smartphone has created a sense that unless documented, curated, edited, shared and commented on, an experience has not really happened. Contemplating this skeuomorph via these ascending stages suggests that we are increasingly living in an era where the representation of life is prioritised above lived experience.

The final stage of this framework is the contemplation of the skeuomorph as providing transformative guidance. By this, I mean that a skeuomorph contains the potential guidance required to resolve the problem identified in the previous stage. The proposition here is as follows: alongside performing its banal emergent purpose (such as confirming a picture has been taken), a skeuomorph simultaneously functions as a symbol which holds archetypal significance in the shared unconscious of its native society. This transformative guidance is revealed as practical advice the community has unknowingly left to itself in the very process of making/retaining/repurposing this skeuomorph. It is a solution to a problem we may not have been aware of – the dream-image which hastens action in waking life. This conception of skeuomorphs as performing a symbolic function, able to provoke the recognition of both a problem and its solution, is consistent with a Benjaminian understanding of objects. He notes of the Paris Arcades:

They are residues of a dream world. The realization of dream elements, in the course of waking up, is the paradigm of dialectical thinking. Thus, dialectical thinking is the organ of historical awakening. Every epoch, in fact, not only dreams the one to follow but, in dreaming, precipitates its awakening (Benjamin, 2002: p. 13).<sup>8</sup>

How can a skeuomorph be approached in order to reveal its transformative guidance? Fundamentally, this task involves identifying the status of the form in which a given

skeuomorph is manifested, in the shared symbolic-order of the community. Camera phone manufacturers could have used alternative sound-effects to fulfil this purpose, but have tended to retain traces of the mechanical in a digital device. I suggest that this feature was kept because it is the archetype of what Benjamin (2008) called a ‘mechanical’ means of reproduction. The shutter sound is emblematic of the first stirrings of this relationship between experience/art and its technological (re)production. It evokes the advent of a distinctly modernist, yet *mechanically* mediated relationship with technology. Interpreted as a symbol imbued with transformative guidance, the shutter sound skeuomorph is a message we have encoded into the object. It anticipates/acknowledges our alienation from the everyday and provides transformative guidance by taking a symbolic form – specifically, that the solution involves reconciling our relationship with digital technology, and the relationship we previously had with mechanical technology. This symbolism is advising us to utilise technology to *document* experience, rather than to *construct* experience.

The aim of this discussion is not to provide definitive answers, but merely propose that – as a special class of object which contain traces of the social conditions of their creation and repurposing – skeuomorphs can generate meaningful insights about the community which makes them. The remainder of the paper explores a further case study of the airplane, which implicitly follows the six stage framework set out above, but forgoes the format of explicitly stating each stage.

### *The airplane*

‘When I form my body in the shape of a plane...’

– Wingwalker by Shellac (1993)

The pairing of the airplane and pilot is an emblem of twentieth-century modernism. And yet the skeuomorphic feature of the airplane that is the focus of this final case study is the human pilot. The development of autopilot technology was fairly rapid. By 1914 – 11 years after the Wright Brother’s initial flight – autopilot technology was on display in public demonstrations. By 1947, this technology had developed sufficiently for a US Airforce airplane to cross the Atlantic using an autopilot which was also responsible for take-off and landing (Stevens et al., 2016: pp. 284–285). Nasr (2015) notes that precise regulations regarding the use of autopilot in commercial flights are country dependent. However, she quotes Paul Robinson – an expert who summarises the general advice provided to pilots as: “‘Let the computer do it because it can do a better job than a person’” (As quoted in Nasr, 2015). Models such as the Boeing 767 have three autopilot systems which can be engaged simultaneously. As well as controlling speed and movement, such systems can also land the airplane (Carey, 2016).<sup>9</sup> The intention of this discussion is not to disparage this profession. Human pilots are certainly able to perform the functions usually handled by the autopilot.<sup>10</sup> It is merely the case that the human pilot is effectively a backup to multiple backups. It would take a series of catastrophic technical failures for a person to be able to do a better job than the machine.

What then is the emergent purpose of the skeuomorphic human pilot retained in this equation? I suggest that the pilot personifies a sense of control, which an anonymous machine cannot provide. At present, many people would perhaps be reluctant to board

an airplane controlled remotely by a computer from the ground, with no human backup in the cockpit. The presence of this skeuomorphic human pilot solves the surface-level problem of the disconcerting independence of the machine, by providing a reassuringly calm, competent, professional human presence, who is positioned as ultimately in control.

This need for reassurance of the status of humans as necessary components of the labour process reveals a deeper recognition that we are increasingly becoming an obsolete component of our wider mode of production. The skeuomorphic pilot can be read as a fossil impression of a society in which human labour itself is increasingly archaic. Automation has begun to threaten a range of jobs. Self-service checkouts are common in shops and autonomous delivery robots have become an established means of buying groceries. In recent years, the replacement of human labour with machines has extended to include mental labour – with artificial intelligence (AI) increasingly able to undertake work formerly reserved for skilled and highly trained legal professionals (Susskind, 2017: p. 185). At the time of writing, Hollywood writers have been on strike for several months, with the potential for AI to replace human writers stated as a key concern for the Writers Guild of America (Hornik, 2023). We can expect the encroachment of human-obsolence to accelerate with the adoption of ‘self-driving’ or autonomous vehicles. Arbib and Seba (2017: p. 23) predict that that this technology will quickly reach a point of critical mass, triggering a ‘vicious cycle’ in which most people will rapidly abandon driving, soon followed by demands for legislation to formally prohibit human drivers as a dangerous component in the road network. They predict that within 10 years of the formal ‘widespread approval of autonomous vehicle use on public roads’, 95% of all passenger miles in the US will be based on autonomous vehicles (Arbib and Seba, 2017: p28).<sup>11</sup> Of course while this increasing automation erodes traditional jobs, it also creates a series of new jobs, sectors and industries. Nonetheless, it seems likely that we have already entered an era in which human labour will be in decreasing demand. Soon, a machine may be able to do our job better than us – whether we are pilots, lawyers, drivers or academics.

How then does the symbolism of the pilot provide transformative guidance through its status as a dreamlike image which resonates in the shared symbolic order of our culture? This particular form has been retained because it alerts us that we have already begun the transition to a new mode of production, with correspondingly new potential relations of production.<sup>12</sup> We are moving from the period of modernity – of which the airplane pilot is the epitome – to a period of late-modernity, in which the role of the human is as yet undetermined. In the language of this symbolism, we have entered a mode of production in which we are sitting at the controls of an airplane that is already on autopilot.

We are now able to produce all that is needed for our material sustenance, but continue to conceive of wealth in a manner which is characteristic of an earlier mode of production. A shift is therefore inevitable, and we can choose to take one of two broad paths. The first involves increasing extremes of inequality in which old conceptions of the ownership of the means of production continue to be at the root of wealth. AI and automation could increasingly replace human workers and make cheaper commodities. In this scenario, the owners of these machines will see their share of wealth increase. Alternatively, we can harness these advances to reimagine our relations of production to one in which

automation produces all that is needed for human material sustenance. We could correspondingly reimagine the distribution of wealth in a manner that recognises the productive capacities of this new era. In addition to the human benefits, new systems of automated agriculture, travel and energy production are rapidly becoming viable, which can be implemented in a manner that recognises the status of humans as merely one aspect of the wider ecosystem. The transformative guidance imbued in the symbolism of the pilot is this: acknowledge that human labour is becoming obsolete, and harness machines in a manner that can foster new egalitarian relations of production.

## Conclusions

Following Benjamin this paper has contended that commodities, the detritus produced by capitalism and the ostensibly obsolete – can be contemplated to yield fundamental insights about the society that created it. This discussion has focused on a handful of skeuomorphs and has applied the proposed interpretive framework to just two. It is hoped, however, that the method outlined here can potentially be applied to any of the plethora of other skeuomorphs mentioned in the wider literature – or indeed those which are yet to come into being. There is scope to develop several aspects of the proposed framework in at least three respects. Firstly, a neglected aspect of the analysis in this paper is the potential negative applications of skeuomorphs, such as their deployment as a means of domination. Much has been made of the dream-like imagery of these objects, while only hinting at the nightmarish. Although not specifically concerned with skeuomorphism, the work of both Davis (2020) and Noble (2018) suggests possible ways forward. Secondly, there is potentially a further movement to be traced in which a skeuomorph transitions from being practical to symbolic; or from performing its original purpose to its emergent purpose. Identifying the nature of this dynamic and the social processes which underpin it may provide further insights and assist in refining the provisional method sketched here. Finally, I have not established if all skeuomorphs lend themselves to such interpretation; or if all skeuomorphs are simultaneously imbued with transformative guidance. A skeuomorph certainly lends itself to a greater depth of analysis when serving a new social purpose, rather than merely decorative, aesthetic or habit based purposes. That said, what is decoration, aesthetics or habit if not fundamentally social? In the end, everything made by people is expressive.

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## Notes

1. Colley March's use of the term 'skeuomorph' is also somewhat inconsistent. Though he does not provide an explicit definition, he situates a skeuomorph as an ornament which takes its form from a *structural* feature of an earlier iteration:

But the forms of ornament demonstrably due to structure require a name. If those taken from animals are called zoomorphs, and those from plants phyllomorphs, it will be convenient to call those derived from structure, skeuomorphs... (Colley March: 1890, p. 166).

At times, his usage also suggests that he views a skeuomorph as the original or antecedent which precedes the ornamental version (see pp. 184–186). Colley March's work unfortunately harbours some prejudices which were common in the late nineteenth century. For example, the paper includes problematic discussions of 'race' (p. 162) and the use of specious terms such as 'savage art' (p. 165). Nonetheless, the term originates with Colley March.

2. The examples provided in this paper are not claimed as original insights on the part of the author. Amongst many others, O'Hara (2012), Self (2013), McCullough (2014) and Gorvett (2017) all highlight examples of skeuomorphs mentioned in this paper.
3. Further reflection reveals a dissonance relating to the terminology 'floppy disc', as a 3.5" disc is better described as 'rigid' than 'floppy'. This terminological ambiguity is explained by the fact that the precursor of the 3.5" iteration was 6" in diameter, housed in a soft plastic scabbard – and could therefore properly be described as 'floppy'. The application of the word 'floppy' to this second generation can therefore be described as a 'terminological skeuomorph'. This skeuomorphic abundance does not end here. At the time of writing, in its OneDrive manifestation, the Word application includes a sync symbol overlaid on a floppy disc icon, to signify the ability to enable/disable autosave. In this iteration, the floppy disc icon has taken on a further level of abstraction – used to signify the option of enabling a feature which circumvents the need to ever again click save.
4. I have taken guidance from the helpful resource 'Indigenous Terminology', provided by the University of New South Wales, in endeavouring to use the appropriate terms in this discussion of Aboriginal peoples in Australia.
5. When used to refer to digital interface design in this specific sense, the term 'skeuomorphic' is a retronym. Bowie (2020: p. 130) explains that: '...before the emergence of "Flat Design", the term "skeuomorphism" was never used in the context of digital interfaces. In true dialectical

- form, “skeuomorphism” was only recognized and articulated in the emergence of its antithesis’.
6. My phrasing of ‘transformative guidance’ is inspired by Copson and Boukli’s (2020: p. 516) term ‘transformative potential’ in their work on utopias.
  7. A dystopian connotation of this confirmation purpose is that in some countries, the option of silencing this sound has been disabled, so that people can be alerted if they are being covertly photographed. Smith (2016) explains that in Japan and Korea, mobile phone service providers (‘wireless carriers’) request that any camera phones they offer include a shutter sound which cannot be turned off. He notes that there is, however, no legal provision that phone cameras must make a noise when a picture is taken.
  8. Benjamin makes multiple references and allusions to Proust’s ‘involuntary memory’ in his notes for the Arcades Project. For example, in *Convolute N* which deals with epistemological concerns, Benjamin (2002: p. 464) notes: ‘Just as Proust begins the story of his life with an awakening, so must every presentation of history begin with awakening; in fact, it should treat of nothing else. This one, accordingly, deals with awakening from the nineteenth century’.
  9. There is some ambiguity around automatic take-off which I have been unable to resolve. The Nasr piece includes an interview with an expert – Patrick Smith – who states that: ‘...about 99 percent of landings are manual and 100 percent of all takeoffs must be done manually by the pilot. There is not yet such a thing as an automated takeoff’ (As quoted by Nasr, 2015: A pilot’s perspective section). However, Stevens et al. (2016: p. 285) note that such systems were first successfully trialled in military aircraft in the 1940s. The distinction here is unclear but I believe may lay in regulations relating to commercial aviation.
  10. Carey (2016) emphasises that important tasks undertaken by human pilots include monitoring weather and fuel levels, as well as communicating with air traffic control; while Nasr (2015) emphasises the crucial role of monitoring the autopilot system.
  11. For their calculation of this figure and relevant caveats, see Arbib and Seba, 2017: pp. 28–29.
  12. For an insightful reflection on the diversity of and interaction between late-capitalist systems of wealth accumulation, see the discussion of ‘pericapitalist’ forms and ‘salvage accumulation’ in Chapter 4 of Tsing (2015).

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