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SKEUOMORPHOLOGY AND QUOTATION

This paper extends the possible analytical uses of the primarily archaeological concept of *skeuomorphism*, into a descriptive category for both natural and artistic processes. First explaining the concept's history and usage, it then demonstrates how a skeuomorphology might aid our understanding of the uses of quotation.

Skeuomorphism, as it is presently used, refers to a fashioning of artefacts in a form which is appropriate to another medium, and so to the migration of a form proper to the construction of an artefact in one material, to a replica of the same artefact constructed in another, usually less valuable material. We see instances of this process in pottery jugs from Zaire (as described by George Basalla in his ›Evolution of Technology‹; fig. 1), where the slight and non-functional handles high on the necks on pottery jugs are in fact survivals from handles made of cord. The jugs themselves are copies of more durable metal ones.

The utility of the concept in archaeology is that it allows for the identification of a function hidden behind what has become mere ornament, in the process of transfer from one medium to another. We might observe that the process of producing replicas in another material also involves a use of a technique inappropriate to that material: for example, the use of metal-working techniques in the production of pottery.

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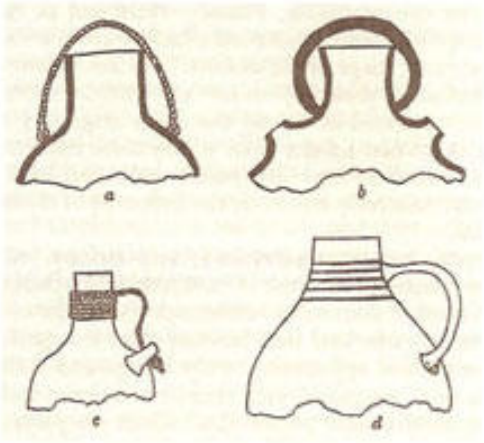

Fig. 1: The illustrations show complex, double skeuomorphs; figures c and d demonstrate both a cord handle developed into a clay one, and a functional cord-strengthening of the neck developed into an ornamental striation. *From George Basalla: The Evolution of Technology. Cambridge 1988, p. 107*

This definition of the concept includes only cultural artefacts and their static qualities. The O.E.D. defines skeuomorphism as the use of one material to give the appearance of another:

"'skeuomorph, *n.*, 1.' an object or feature copying the design of a similar artefact in another material."

The etymology given is the Greek word *skeuos* (a vessel, or implement) + *morphé* (form).

Yet the OED also gives a secondary definition of *skeuomorph*:

"'skeuomorph, *n.*, 2.' an ornamental design resulting from the nature of the material used or the method of working it."[1],

a process which the illustration above demonstrates. I wish to expand this concept to include a wider set of cultural activities, for in its ability

1 This meaning is in fact given as the primary sense by the O.E.D., though the two senses are contemporaneous; both stem from the same source: "1889 H. COLLEY MARCH in *Trans. Lancs. & Cheshire Antiq. Soc.* VII. 166. 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." (O.E.D. The Oxford English Dictionary. Oxford ²1989)

to identify a transitional process between functional and aesthetic forms, skeuomorphism may prove to be a factor in the genesis of style in the fine arts and literature more generally.

If we abstract from the concept of skeuomorphism a general principle, that where a function is rendered obsolete, its residual traces become ornament, we might observe that such a principle obtains widely both in nature and in culture. The human body is a catalogue of skeuomorphisms: Hair, no longer having the survival value that it did for our ancestors, now serves a primarily ornamental role; fingernails are painted; male nipples pierced. These practices, in their decorative aspect, also serve new cultural functions (hair, for example, serves as a marker of tribal or religious allegiance, of dissent or conformity; nails serve to indicate gender and to distinguish social status). Not all such organic skeuomorphs are generally visible; the vermiform appendix, the coccyx, the palmaris and subclavius muscles, and wisdom teeth are not regarded as ornamental in any sense. Yet where these organs *are* visible, they become overlaid with a secondary symbolic significance, and their 'redundancy' is usually emphasized by further decoration or by anomalous function (as any of you who are able to wiggle your ears, thanks to possession of extrinsic ear muscles, can attest). Nevertheless, even where skeuomorphs take on an ornamental role, the evidence of original function still remains coded into their form. There is no transfer from one medium to another here, but the shift in function of any organ demarcates a real phylogenic shift, and refers to genuine transitions in the intensive relation of a species and its environment.

Such 'vestigial' organs have often been studied within an evolutionary framework (and as often have been misunderstood, as the continuing myth that the human embryo develops, then transforms into the ears, residual 'gills'—which formation is in fact merely the brachial arch—attests.) This theme of 'vestigiality' appears in literature most commonly during the second half of the 19th century, particularly in those fictions of Samuel Butler and H.G. Wells that take issue with the evolutionary analogy.

Very little has been written on skeuomorphism in general. The most recent thorough theorization of the concept is to be found in Michael Vickers and David Gill, 'Artful Crafts' (1994), yet their consideration is within the narrow archaeological framework of its application to Greek ceramic imitations of metal vessels, from the 6th to 4th century

B.C. Michael Vickers describes his German volume on 'Skeuomorphismus oder die Kunst, aus wenig viel zu machen' (1999) as:

"An examination of the concept of skeuomorphism: the principle whereby expensive materials, such as gold, silver, or rock crystal are imitated in cheaper ones, such as bronze, pottery or glass. It is a means of transcending archaeological positivism, for by extrapolating from the archaeological record, it is possible to reconstruct vanished objects made from material that was too precious to discard in antiquity"

and provides yet another definition of the term: 'the migration of a form native to one medium into another'. Richard N. Bailey has noted the traces of metalworking elements upon stone Anglo-Saxon crosses, such as stone bosses or 'studs'; he has suggested that such stone 'studs', some of which were once painted and even gilded, emulate both the jewelling of metal crosses, which use of a valuable material served as an appropriate glorification of God, and as an imitation of the *Crux Gemmata*, itself a transfiguration of the true cross, as the 7th-century Anglo-Saxon poem 'The Dream of the Rood' memorializes.[2]

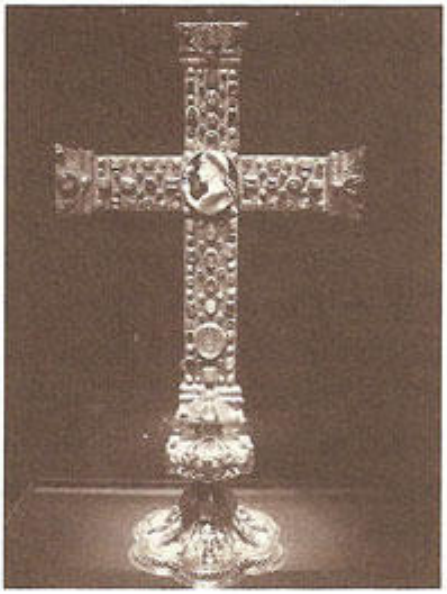

Fig. 2: The 11th-century Lotharkreuz, made in Köln and now in the Aachener Dom

2 Richard N. Bailey: "What mean these stones?" Some Aspects of pre-Norman Sculpture in Cheshire and Lancashire. In: Donald Scragg (Ed.): Textual and Material Culture in Anglo-Saxon England: Thomas Northcote Toller and the Toller Memorial Lectures. Cambridge 2003, p. 213–239, p. 238.

David A. Hinton suggests that those who made the original objects of emulation in this period—Anglo-Saxon smiths—might have been both excluded and revered, as "those who have the knowledge to change metals into objects may have other powers ascribed to them,"[3] but also and more sensibly as popular fear of their magic might understandably be reduced to a sensible precaution against the possibility of fire. It is a popular superstition which one might easily recognize as applied also to authors.

The archaeologist Carl Knappett has discussed the applications of skeuomorphism to modern photography and film, but only briefly and in one paper. Like many of the writers currently working on the development of 'material culture studies' from a fledgling discipline into a mature 'science of the artificial', Knappett's work is concerned primarily with how we derive meaning from objects, and theorizes skeuomorphs within a semiotic framework borrowed from C. S. Pierce. In using semiotics to interpret material culture, Knappett and others are essentially engaged not in determining forms as non-Cartesian expressions of thought or, in other words, as memes, as they believe; rather, as semioticians they are engaged in an epistemology of attributed meaning, and not an ontology of intended meaning. The advantage of looking at skeuomorphs in literature, however, is that it circumvents the problem of intention entirely, as skeuomorphology is concerned not with new interpretations of older conventions and genres, but with the ways in which conventions and genres act as nonhuman agencies in themselves. Rather than being evidence of the transference of ideas themselves, skeuomorphs are vehicles for the tranference of the *forms* of ideas. In cases where the medium is the message, as is so often the case in quotation, a higher degree of complexity obtains than in, for example, the analysis of Scythian pots.

Elsewhere, works dealing primarily with architecture and with computer software engineering have recently taken up the concept of skeuomorphism to describe specific problems within their own fields. Philip Steadman's 'The evolution of designs' views the concept as one of many, possibly fundamentally flawed, analogies with biology. Although his concern is principally with architectural manifestations, he identifies some of the wider philosophical difficulties of identifying

3 David A. Hinton: Anglo-Sacon Smiths and Myths. In: Donald Scragg (Ed.): Textual and Material Culture in Anglo-Saxon England (ibid. 2), p. 261–282, p. 271.

ornament with absence of function. Stewart Brand also touches on architectural skeuomorphs in his 1994 work 'How Buildings Learn: What Happens After They're Built.' Anders Mørch, although he misunderstands the etymology of the concept entirely, believing that skeuomorphism refers etymologically to a 'skewed' form, uses skeuomorphism to describe the junk surplus functions, or remnants of once-functional machine language, left behind in 'bloatware'—vastly over-inflated software in common usage, such as Microsoft's 'Word,' where each successive generation of the product fails to eliminate the previous version's redundant functions.

Generally, however, skeuomorphism has since its coinage become largely restricted to usage within archaeology, but it is instructive to note that its earliest adherents place it within a much wider morphological system. Alfred Haddon's 'Evolution in Art' (1895) sees it as merely one type of -morphism in an entire classificatory system of form in (mainly 'savage') artworks. Most of his terms derive from the object of representation—hence, 'zoomorph', 'phyllomorph', 'anthropomorph' and so on—yet the addition of skeuomorphism permits Haddon to identify a type of form by the process of its genesis, so that he is able to account for a non-human agency determining certain forms. A further refinement of his system is that it can account for hybrid forms, or 'heteromorphs', where a nonintentional skeuomorphism is combined with an intentional biomorphism. Haddon's memorable formulation of the concept as 'the annihilation of the useful by the beautiful' suggests that what is needed is to resolve the concept is the very opposite of the current academic trend: an account of the relation between form and function which focuses not upon meaning but morphogenesis.

But if what is as stake is not the meanings and interpretations of objects or statements or genres but the processes that guide their genesis, the question of the validity of the 'biological analogy' becomes rather pressing. Philip Steadman's careful distinction in 'The evolution of designs' between Darwinian natural selection and Lamarckian cultural evolution requires re-assessment, as even in the year it was published, evidence of 'reticulate' evolution in biology was becoming available. I do not intend here to explore this problem, though it is worthwhile considering the extent to which a skeuomorphology would obey the evolutionary principle that *ontogeny recapitulates phylogeny*: or, in other words, the principle that each organism develops in stages which follow the same order as the evolutionary stages of the species to which it belongs.

In biology, examples of this principle include the fact that vertebrate mammal embryos develop the backbone first; in human embryos, the cerebrum develops last. It would seem that human biological skeuomorphs such as the coccyx do obey this principle: it develops into an embryonic tail at the same stage as it does in primate embryos, and only later in embryogenesis does it recede to become the coccyx.

Up to this point, I've discussed the principle that ontogeny recapitulates phylogeny, and the question of whether or not we can speak of man-made artefacts in the terms of evolution, only in terms of morphogenesis at the ontogenic level. George Basalla, in the 'Evolution of Technology,' describes the great 'interlocking cycle' of invention/replication/discard that is the characteristic of technological selection at the highest level: and this is in fact a phylogenic level. Ontogeny recapitulates phylogeny here: or, the same process applies at the macro and the micro level; at the molar, and the molecular levels. The relations between invention, replication, and discard are internalized and productive; and furthermore they seem to apply across distinct fields, to the evolution of biological and mechanical entities equally. The *exact* internal abstact relations between the three are equivalent to *intensities*: these are fluid, but the governing factor (or the quasi-cause) that determines the degree of intensive relations is the principal factor in determining, both at the micro and the macro level, at the ontogenic and the phylogenic levels, whether a given artefact can be actualized or not. In other words, these relations are the condition of a given artefact's possibility: they are its *virtual* abstract machine.[4]

I would however propose that there is a suggestive and productive continuity between skeuomorphism and Richard Dawkins' theory of 'memes,' as skeuomorphs may be categorized within Dawkins' schema as physical instantiations of memes. Anders Mørch summarizes Dawkins' notion of memes in suggestive terms in his article 'Evolutionary Growth and Control in User Tailorable Systems':

"Memes are the *ideas* embedded in cultural artefacts, from books to pottery. They have a code that can be reused (i.e., described by a 'language'), expressed (presented as readable 'sentences') and accessible to bodies in their environment (e.g., human readers). In the same way a gene can replicate to form new

4 The terms 'intensity' and 'abstract machine' are here borrowed from Gilles Deleuze, the philosopher who has done the most in the twentieth century to produce an ontology of the virtual.

cells, a meme can become part of new artefacts. An example of this is when an idea that has been introduced in a book is found again later in another book. This can be explained as the meme's capability for replication and survival (Dawkins, 1982). Memes combine and accumulate in a similar way to how genes combine and accumulate (by reproduction and inheritance)."[5]

To take a concrete example: Levi's jeans have a small pocket within the outer right-hand pocket. The pocket's corners are fastened to the body of the jeans by rivets. If one examines the top button of the fly, one sees that its form is a stylized version of the same rivets that attach the pockets. We have here a series of obsolete functions (the small pocket is now purely ornamental, as we no longer carry pocket watches or gold nuggets) and stylized imitations of functions (the button rivets, but its form hardly needs to resemble one).

What then are the characteristic attributes of skeuomorphs, and how might we be able to describe and understand literature through a skeuomorphology? If we once again consider the O.E.D.'s key definitions:

"'skeuomorph, *n.*, 1.' an object or feature copying the design of a similar artefact in another material."

"'skeuomorph, *n.*, 2.' an ornamental design resulting from the nature of the material used or the method of working it."

and Michael Vickers' further definition:

"the migration of a form native to one medium into another,"

and consider these definitions within an evolutionary framework, the characteristic attributes of skeuomorphs therefore appear to be: their essential vestigiality; their ornamental form which is the residue of an obsolete function; and their capacity for (self) replication. As the logic of these three attributes may be applied equally to the evolution of the nonorganic and the artificial as to the organic, I would suggest that we

5 Anders I. Mørch: Evolutionary growth and control in user tailorable systems. In: Nandish V. Patel (Ed.): Adaptive evolutionary information systems. Philadelphia 2003, p. 30–58, p. 39.

might consider the instances of such a logic in literature at three levels: of form, language, and genre.

For example, in poetry end-rhyme has long since lost its primary function of helping the reciter to remember what comes next in the order of the poem, as we no longer have solely oral poetry. With writing came a shift, and end-rhyme is now a skeuomorph, an artefact which has lost its function and become ornamental. Despite this essential vestigiality, it possesses a remarkable capacity for self-replication and survival.

It is evident that a similar principle applies at the level of language, as linguists and etymologists will know well. There is some connexion here between the archaeological usage of 'skeuomorph' to mean ornament that is the residuum of function, and Gregory Bateson's comments on terms which refer to mechanical homologies (e.g. 'horsepower,' where the engine of a car sits at the front, in lieu of the horse pulling the carriage).[6]

And the vestigial functions of mannerisms or styles in literary and artistic genres, where the style emerges from a prior but now redundant function, might best be illustrated by the traditional dramatic monologue, which functions by creating in the reader a tension between sympathy for and moral judgment of the poem's persona. Twentieth-century dramatic monologues (for example, those of Ezra Pound) inherit this formal function; but the moral response which a nineteenth-century poet such as Robert Browning might reasonably have anticipated from a Victorian reader can no longer be relied upon by poets such as Pound. As a consequence, the form of the modern dramatic monologue contains a skeuomorphic element, which both memorializes an obsolete relation of shared moral expectation between poet and reader, and which becomes in later poetry mere ornament.

One might even consider the history of criticism, from this evolutionary viewpoint, as a history of the timely identification of skeuomorphisms. One could say that our defining critical concepts—the pathetic fallacy, dissociation of sensibility, etc.—have been identified at the precise point they were identified, exactly because that was the point of transition from function to ornament. Just as Ruskin saw the representation of weather as an artificial barometer of mood in painting and poetry, what he perceived was first and foremost the artificiality. Which

6 Uwe Wirth has similarly commented on the 'cut and paste' function in word processors, where the name memorializes the original function.

is to say, that the technique had lost its efficacy, and was becoming little more than a mannerism or style. The same might be said of Eliot's insight regarding the dissociation of thought and feeling which, he averred, occurred following the metaphysical poets: what he identified was the change, a change which revealed itself only as the norm degenerated into mere decoration.

How then might we consider quotations and citations from the point of view of a skeuomorphology?

I would begin by noting the intersection between the skeuomorphic notion of 'dead function', and Bakhtin's notion of 'dead quotations'. Bakhtin bemoans, in 'The Dialogic Imagination,' "dead quotation, something that falls out of the artistic context (for example, the evangelical texts in Tolstoy at the end of *Resurrection*)."[7] For Bakhtin, these quoted materials, migrated from one form to another, are 'dead' because they fail to be integrated into the work that quotes them. His choice of adjective is particularly stimulating, as poetry since the Romantic era has been concerned with a connexion between quotation and death, and often focuses upon the specifically memorializing function of quotation upon monuments.

Percy Shelley's ruined statue of Ozymandias with its inscribed pedestal is perhaps the famous example: in the poem, the poet quotes a traveller, who quotes the inscription he read upon the pedestal, which inscription is itself a quotation of Ozymandias' own words. The recursiveness only amplifies our sense of the quotation's obsolete function; its new ornamental role within the picturesque ruins is to ironize the original meaning.

It is worth noting that Shelley's poem is also a frame-narrative, an intrinsically architectural form which permits of all kinds of citation, from extended internal quotation to found manuscripts real and imagined. The 'frame' is a metaphor, but as such, it refers to the point of entry into a text: it is the proscenium arch, a gate, a portal, through which the reader must pass. And actual portals too, as monuments, are frequently vehicles for quotations, as Dante's most famous inscription upon the gates of hell bears witness: "Lasciate ogne speranza, voi ch'intrate" [Abandon all hope, ye who enter here].[8] This connexion between monuments, quotation, and death infects the English novel

7 Mikhail Bakhtin: The Dialogic Imagination: Four Essays. Transl. Caryl Emerson and Michael Holquist. Austin, TX 1981, p. 344.

8 Dante Alighieri: Divina Commedia. Rom 2007, Inferno I,9.

throughout the Romantic period, a period during which both extended use of 'paratextual' elements and the gothic novel develop simultaneously.

The most notoriously paratextual of all, Thomas Frognall Dibdin's 1809 frame-narrative 'Bibliomania; or, Book Madness: A Bibliographical Romance,' though ostensibly a narrative about bibliomanic disease, is composed primarily of peritextual matter—seemingly endless and lenghty quotations and citations, quotations of quotations and footnotes of footnotes referring to and even containing library and book auction catalogues, price lists, typographical and printing information, quasi-autobiographical interventions and anecdotes, analyses of indices, prefaces, inscriptions, dedications, and other peritextual elements of incunabula, and perhaps most entertainingly, a reproduction of the prison accounts book entry listing both the dinner expenses of Ridley, Latimer, and Cranmer, and the costs of burning them. The entirety is excessively supplementary, and precedes the publication of such miscellanies as Bartlett's 'Familiar Quotations' by some 46 years.

Such collections seem to be entirely composed of 'dead quotations', in Bakhtin's phrase, because they do not even create accidental meaning by joining or juxtaposing their selections. Their form is that of an architextu(r)al necropolis; irrespective of their contents, these collections have the simultaneously morbid and elegaic atmosphere of a pathologist's museum of amputated limbs, such residual 'dead quotations' serving only to suggest the ruin and decay of the absent body of the texts from which they have been excised.

But the more common frame-narratives in the Romantic era—and even the framed poems—are also marked by their peritextual elements. Just as Coleridge's 1817 version of the 'Rime of the Ancient Mariner' adds mock-antiquarian glosses which render the internal quotations within the poem quotations of quotations, Maria Edgeworth's tale of 18th-century Irish life 'Castle Rackrent,' as published in 1800, contained a glossary explaining Irish vernacular placed *en exergue* as well a barrage of a fictional 'editor's' footnotes, all of which quote ostensibly authentic oral usages of the Irish idioms for the benefit of a non-Irish readership. Such paratextual elements, both epitextual and peritextual, have been most closely outlined in Gérard Genette's 'Seuils', or 'Paratexts: Thresholds of Interpretation,' in which Genette systematizes the liminal elements of texts—their titles and prefaces, forewords and introductions, inscriptions and dedications, footnotes and endnotes, any or all of

which may overtly or covertly be quotations (as for example with Faulkner's 'The Sound and the Fury').

The one peritextual form in the novel which is always a quotation, whether authentic or not, however, is the epigraph. Genette notes that the epigraph is generally placed *en exergue*, whether solely at the head of the book, or as was the memetically-virulent fashion in the gothic novel and its offspring, at the head of each chapter, as is the case in novels by Radcliffe, Lewis, Maturin, Scott, and Cooper. Reasoning that the epigraph's location *en exergue* is related to its function, Genette proposes that the habit of using quotations as epigraphs is a survival from the earlier habit of using dedicatory epistles, which served to secure the author financial favour with an existing or wished-for benefactor. But preceding either dedication or epigraph, Genette suggests, was the use of the author's coat-of-arms, a totem which contains a textual element itself: a motto which is usually a Latin quotation.

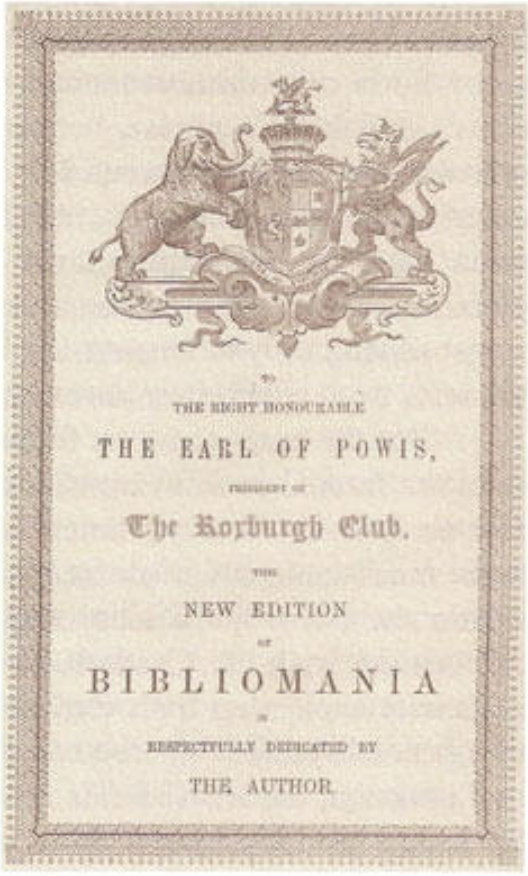

Fig. 3: The hybrid epigraph/dedication, also containing a coat-of-arms. *Thomas Frognall Dibdin: Bibliomania; or, Book Madness: A Bibliographical Romance. London 1876 (1809)*

Though Genette seems aware of some implication that the location of the epigraph carries with it certain obligations derived from the form from which it evolved—he describes, for example, Hugo's 'Han d'Islande' as being 'armed' with epigraphs—he does not suggest that this pattern of evolution is following any identifiable logic. His list of functions of the epigraph—to justify and comment upon the title and the text—therefore ignore the lost function of the preceding coat-of-arms, which is both an heraldic proclamation and a precautionary defensive measure, asserting the authority of the writer. The epigraph as quotation is therefore a literary skeuomorph *par excellence*, for it retains the form (the textual motto or quotation) and the location (*en exergue*), but devolves at its most base, particularly in the popular gothic novel, into an ornamental device expressing little more than the vanity of apparent learning.

To conclude: the vestigial presence of obsolete literary functions is evidence only of an historical process of formal evolution. A catalogue of such skeuomorphs would therefore, it is proposed, have the rudiments of a new theory of style. In the postmodern novel, the question of 'found materials' in modern art and literature is a useful touchstone, as such artworks are often judged to be 'kitsch,' a judgment which also is often, yet erroneously, made of skeuomorphs.[9] A recent trend in the novel from J.G. Ballard to Donald Barthelme through Mark Z. Danielewski and Douglas Coupland, is the indecorous appropriation and quotation of purely 'functional' written or printed materials, or what Ballard fondly calls 'grey literature'—computing manuals, medical reports, scientific textbooks, marketing surveys, and so on—which from the point of view of current literary analysis have no intrinsic meaningfulness or symbolic value. Modernist notions of 'allusion' cannot account fully or satisfactorily for the ways in which these citational appropriations operate within fiction, because there exists no viable aesthetic of the 'material' in literature. I would suggest that a theorization of skeuomorphism in literary form might provide a much more effective method of theorizing these intrusions of the material world into literature.

9 The relation of skeuomorphs to our 'aesthetic sense' remains obscure: how can we apprehend skeuomorphs as beautiful? One possibility is that it is only through a symbolic/indexical (Peirce) association with a prior 'beauty,' a 'beauty' which is, in the prior object, mere function; yet this proposition both avoids the skeuomorph's singularity, and defers the problem of defining its 'beauty.'