Design practice, things and language: An iterative collaboration

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Abstract

This paper is a collaboration between an academic design practitioner, whose primary medium of research is the designed object, and a design researcher with a background in literary, critical and poetic writing. As such, the subject of this paper is woven from multiple dialogues. It is a practitioner-led account of the design process which produced a specific object. This perspective brings into focus the role of the hammer as tool for shaping timber, assigning particleboard dignity as a material, and the relationship between digital processing and manual workmanship. In parallel to this dialogue between investigator and object is a secondary dialogue that emerges between the practice of the designer, the design and a writer, who is removed from the process of material making but engaged in the wider cluster of ideas and expressions, which become activated as the design process is explicated in language. The perspective of the writer is significantly informed by various lineages of thought that might be crudely grouped within the field of "thing theory", most significantly Steven Connor's different takes on the relationship between thinking and things, sense and substance, Daniel Tiffany's work on lyric substance, and Alfred North Whitehead's philosophical writing on beauty. The tension which gives the paper its structure comes from the personal, reflective, practical and semantic knowledge of the designer and the patterning of associations and theory used by the writer to variously enhance the scope of the writing and research.

Keywords

Thing Theory; Design Practice; Poetic Design; Product Design; Design Writing

Introduction: A thought provoking analogy?

In a context where technological innovation is often reflexively taken to be advantageous and exceptional, the technological distinctiveness, novelty and sophistication of human-to-human collaboration can be under-appreciated. Human beings remain the most advanced technology in the world. Sometimes it takes a

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metaphorical mis-description or analogy-like thinking about a human being as a kind of technology — to make explicit the innovative potentials human-to-human collaboration has for design.

With this analogy in mind we would like to begin by suggesting that one of the things this collaboration has allowed is for the virtual life of an object to develop further than it otherwise might have. The virtual is now often interpreted as being specifically about technology. In particular, virtual reality technology has significantly influenced the kinds of experiences, objects, meanings and practices associated with "the virtual". However, this is quite a limited, context specific application of a word with a far more generous field of application. The virtual also plays an increasingly central role in design practices that engage with digital design and additive manufacturing (AM). For example, one of the most innovative design studios in this area, Assa Ashuach Studio, describes the virtual life of an object as being in the centre of the studio's practice (Ashuach). Ashuach has designed software that allows "product personalisation and reconfiguration within safe user experience online, connecting the trilogy of user, designer and manufacturer" (Ashuach). The virtual existence of the object in this sense allows for greater customisation, with objects created that adapt to the specific limitations and desires of diverse users, social contexts and activities. In this context, such a description means that an object is open to a range of possible adjustments, based on various inputs, before its final design is settled.

The sense of a design remaining open to possibilities is a key aspect of the virtual that can be meaningfully applied to the collaboration between designer and writer discussed in this paper. The designer creates an object based on a combination of contingency and necessity. The writer then encounters this object as a real thing, in finished form. Yet its virtual life hasn't ended here. As the designer and writer begin to share ideas about the history of making and the formal and symbolic elements of the object, a new field of possibilities begins to emerge. The writer is essentially working to create an increasingly detailed rendering of the object in the virtual space of his or her mind, a space where metaphorical and contextual associations are activated and become undifferentiated from the object as a real thing.

One example of this occurred during our first workshop meeting. The designer described his process and intent with the designed object (PRT) there before us in the space it was created (see Figure 1). One of the striking things about the design is the contrast between the two different materials: the smooth, transparent, uniform surface of the glass table top and the opaque, rough, fuzziness of the particle board which is used for the stand. Part of the artfulness of the design is the shaping of this intensity of contrast, into some kind of aesthetic harmony. A shared acknowledgment of this element led to a further discussion of the more obscure association this pairing of materials suggested, specifically the relationship between glass and sand, something suggested indirectly due to the shared particulate nature of the board used in the design and sand, which is the base material for glass. The material concept of "the particulate" was identified as a key element of the design and then related to a broader field of analogous relations, some of which exist in a meaningful relationship with the design.

This inexplicit association adds a further layer of interpretive meaning to the design work, which remains relevant whether or not it was part of the designer's intent.



Figure 1. Initial material investigations for PRT.

In a media landscape increasingly dominated by the visual, it is taken for granted that product designers will take high-quality photographs or produce videos of their work. The value of poetry as a means to document, communicate and potentially transform the meaning of a design is unsurprisingly far less common. The textual component of a design is typically limited to prosaic descriptions, which have limited value when it comes to creatively interpreting or enhancing a design. Poetic techniques, such as ellipsis, enjambment, metaphor and various kinds of punning, limit the amount of overt information conveyed in favour of deliberately obscure, multiple or suggestive meanings meant to engage the imagination.

As part of the process of this paper the writer composed a poem which shares the same name as the designed object. This was undertaken with the view of gaining a more exact appreciation of how the design might exist in the form of a poem.

PRT

The open edge fuzzes,
Fibrous, dense
When a drop flattens, glass
Spreads, smooth perfection.
Disc and the spine,
Rough husks tapering, stack
Into crystal still shifting.
Even the transparent
Is mixed.

Rather than an exact description the poem works by allusion. It displays a stereotypically modernist preference for ellipsis and an emphasis on the language rather than the subjective situation of the poet. The lack of exactitude and overt visual information (compared to photographic imagery) ideally allows the imagination to become more involved in interpreting both the meaning of the poem and the design. Along with a range of metaphors, the poem is motivated by a key insight that thinking with PRT brought to light: that things which we perceive to be transparent (glass, air, water) are still mixed at an imperceptible level. This is both interesting in itself and because it highlights something crucial about human perception more generally: that there is much obscured yet active in-between what we see and what there is.

Words and things

There is a long history of poets writing about objects. As Daniel Tiffany notes in Lyric Substance: "Archaeological evidence reveals that the earliest poetry in English displays an affinity for objects whose rarity and eccentricity were signalled by a peculiar verbal identity. Indeed, it may be possible to claim that lyric poetry first emerged in English as the enigmatic voice of certain highly wrought objects" (Tiffany, 73). Yet it is not only rare and eccentric objects which have captured the imagination of poets. Tiffany notes that most of the riddles in *The Exeter Book*, an Anglo-Saxon seminal riddle text from the late 10th century, "are familiar objects, and sometimes animals, of the house, hall, farmyard, monastery, or battlefield" (79). These include riddles about leather, a rake, a horn, a plough, a churn and a weaver's loom. As Tiffany writes, "The weird creature we encounter at the outset of the poem turns out to be a phenomenon common to most people's experience; the dark speech of the riddle veils, even as it describes precisely, a familiar object" (79). The riddle in this sense at once *obscures* the object through cryptic language play and illuminates its existence by giving it an expressive voice.

For the purposes of this paper, we want to highlight the way object riddles express an intimate relationship between words and things, and how the use of literary or poetic writing extended the virtual presence of a physical object. Take Riddle 34, *The Rake*, for example:

I saw a thing in the dwellings of men that feeds the cattle; has many teeth. The beak is useful to it; it goes downwards, ravages faithfully; pulls homewards; hunts along walls; reaches for roots. Always it finds them, those which are not fast; lets them, the beautiful, when they are fast, stand in quiet in their proper places, brightly shining, growing, blooming. (Baum 1963)

In this example the identity of the object is revealed and hidden through a series of metaphorical references to other things and practices. The rake is described as a quasi-animate thing with "teeth" and "beak" that "hunts", "ravages", "reaches" and "seeks".

This set of metaphors gives the rake a sense of agency that might otherwise remain inexplicit.

This tradition is continued in a series of more recent poems analysed by Tiffany that display an intense preoccupation with the mysteries of the material world. There is a tendency expressed in all of these poems to describe the material world as a dynamic combination of form and formlessness, of substance and the insubstantial, of clarity and obscurity. Part of this is attributable to the subject matter for the poems – meteoric phenomena such as rainbows, beams of light and storms, swarms, corpses and automata – and part of it, as suggested above, is to do with a certain, longstanding tradition in lyric and modernist poetry, that evokes an image or idea of an object through an indirect field of associations which link to other phenomena. In this sense both ancient riddles and modern poetry combine the intuitive and unintuitive aspects of things to create a description which compels readers to use and in some sense picture the form our imagination might take were its properties embodied in a material phenomena.

The genre of the riddle bears some relevance to the relationship between textual and tangible in design practice. While not considered riddling in the conventional sense, the design brief is a genre of textual communication that discloses and obscures a hypothetical, yet-to-be-made object. Like the objects of *The Exeter Book*, the designs adumbrated in design briefs have an ambiguous identity, which is often suggested rather than explicitly disclosed. This connection between the verbal and physical identity of designed objects is alluded to by Jonathan Ventura and Gal Ventura in the article *Exphrasis: Verbalizing Unexisting Objects in the World of Design* (Ventura and Ventura). The authors modify the term "ekphrasis" – the tradition of describing images in words, primarily used by art and literary scholars – to "exphrasis", which relates to descriptions of yet-to-be-made objects that exist in the shared space between design brief and the mind of the designer.

Yet another different but comparable example of a riddling technique is suggested by Bruno Munari in a short chapter of his book *Design as Art*, entitled *Orange, Pea, Rose*. Munari suggests the strangeness and intricacy of natural objects becomes explicit when imagined as though they were the product of human intention, in other words, if they were designed. The orange is his first example:

Each section or container consists of an envelope of plastic-like material large enough to contain the juice but easy to handle during the dismemberment of the global form. The sections are attached to one another by a very weak, though adequate, adhesive. The outer packing container, following the growing tendency of today is not returnable and may be the thrown away. (Munari 2008, 83)

By obliquely referring to the object, Munari creates a sense of ambiguity as to whether he is describing natural produce or a fabricated package. Like the rake in *The Exeter Book*, which is an inanimate object described as though it were living, the orange obtains a peculiar identity through the metaphorical play in writing.

Thinking things

Tiffany's work is part of a broader trend towards writing and research about objects in sociological and cultural research. Rather than focus on the social construction of objects and materials by looking at categories like race, class and gender, researchers like Tiffany (2001), Bruno Latour (1996), Lorraine Daston (2008), Mary Poovey (1998), Steven Connor (2000; 2011; 2013); and Marina Warner (2006), to name a select few, have focused on the specific being or ontology of things, the variety of publics they enlist and the fantasies to which they give rise. Connor states this explicitly in an article that gives this approach, somewhat warily, the name "cultural phenomenology":

Instead of readings of abstract social and psychological structures, functions and dynamics, cultural phenomenology would home in on substances, habits, organs, rituals, obsessions, pathologies, processes and patterns of feeling. Such interests would be at once philosophical and poetic, explanatory and exploratory, analytic and evocative. (Connor 2000, 3)

Rather than see our attachments to things as fetishes and phobias produced by some hidden ideological agenda or unconscious drive, thinkers in this tradition focus first of all on the agency, specifics and metaphorical capacity of the things that are said to produce such a response. This might be a specific financial instrument such as double-entry bookkeeping, in the case of Poovey; wax or smoke, in the case of Warner; glass flowers for Daston; or Personal Rapid Transportation devices, in the case of Latour.

Connor's work is particularly relevant when considering the relationship between poetry and things. His book *Paraphernalia* (2011) is a homage to the pervasive, important and yet often anonymous lives of mass produced items, typically found in a domestic context or pocket. These include sticky tape, paper clips, cards, rubber bands, glasses, batteries, pins, bags, plugs and many others. Although not explicitly stated as a technique or method, Connor's primary means for generating novel insights about these objects is what might broadly be described as his poetic turn of phrase. Take, for example, this riff on stickiness in his chapter on sticky tape:

Stickiness is vitiated stillness, solidity infected by a slow, syrupy drift, in an insidious conspiracy of the liquid with the solid. It sticks to itself, and sticks other things to it, but its stickiness is a seduction and solicitation, rather than a threat; one can always and easily break the glutinous bond which it intimates, but only at the cost of oneself having become sticky. (2011, 190-191)

Or his further elaboration, in the same chapter, where the contrasting but contiguous surfaces of the tape prompt some metaphysical speculation:

Sticky tape is magical because it promises that the two sides of the world, the two orders of things, the smooth and the sticky, the distinct and the indistinct, can themselves miraculously be articulated, which is to say, both kept distinct and joined together. Like so many other apparently unremarkable objects, the roll of sticky tape is a philosophical machine. (191)

In addition to his work on things, Connor has developed a vocabulary to elaborate the complicated relations we have with substances. This includes various essays on "quasichoate" phenomena such as sand and dust (2010) and his concept of "senstances", which, like his work on thinking things, proposes that hybrids of subject and object, or in this case, sense and substance, are a more useful interpretive unit for an understanding of culture than either subject or object in isolation. Connor describes a senstance as "a substance so closely twinned with a sensation as to have become cosubstantial with it" (2013). The examples he uses are the slimy, the sticky, the shiny, "the brittle, the tenuous, the cool, the granular, the smooth, the matted" (2013).

In his paper, Connor discusses his mother's phobic relation to sugar, which sees an example of the complicated emotional responses induced by different materials and the context in which they become sensible to us:

She had no difficulty with most of the ways in which sugar was packaged and put to use, just as long as it was not spilled, on the table, or, most abominable of all, on the floor. Then there was a kind of horror, that I have never myself felt directly, but feel that I can now feel by proxy, the horror of the sudden explosion of the tractably pourable substance into innumerable grains felt beneath the fingertips and, most appallingly, the crunch, as of tiny, mobile molluscs, under your feet, a milling maceration that then sticks to you, that you carry with you on your soles, and renew with every step. (2013)

This insight usefully captures the sense of materials existing simultaneously as events with interacting physical and psychological properties. Connor's mother responds in a highly specific psychological and emotional manner to an equally specific material event. Connor is deliberately resistant to the psychoanalytic tendency, both popularised and professional, to see such responses as "a masking in material form of more abstract fears and desires" (2013). Connor argues that this neglects "the most important thing about the fetish or phobia, namely that it represents the fascination of matter as such" (2013): in this case, a peculiar combination of granularity, stickiness and the "explosion" of sugar on the floor. He gives the insight further nuance by pointing out that salt, which is a substance of comparable granularity, didn't provoke the same response for his mother due to its lack of stickiness:

Salt rolls smoothly across the surfaces on which it has been spilled, leaving them as clean as, or maybe even cleaner than they were before. Grains of sugar exert a disgusting little tug at the surface on which they have been spilled, clinging like mites in hair. Salt is lapidary, jewel-like in its dryness; sugar seems quasi-animate. (2013)

Connor thus unfolds a rich series of insights from a mundane story. His writing glows with a kind of readiness for further development.

This story and the way Connor uses it to elaborate a metaphysics of stickiness is a useful framing device for understanding the way different materials exist as part of a designer's emotional, perceptual and cognitive experience. A different version of something similar is evident in the initial inspiration for PRT, which came from the masses of broken particleboard that typically builds up in the construction skip bins and on hard rubbish collection days. This build-up or explosion of formless material niggled away in the mind of the designer, provoking periods of contemplation about how to give meaning to this typically undervalued material.



Figure 2. Discarded particle board.

Designers respond to formless material by giving it form, ideally in a way that manages to preserve the distinctiveness of a material. In PRT, the particleboard is given form and allowed to express its peculiar attributes. By deliberately breaking the edge with a rudimentary yet precise hammering technique, adapted specifically for the purpose of this design, the designer both accentuates the particulate properties of the particleboard and brings the material into an overall coherence through a thoughtful, meticulously realised design. The fuzzy edge of the material is an element which is abstracted from the context of the overflowing bin, shaped and brought into relation with other elements, so that it is assigned a dignity it might have otherwise lacked, whether hidden beneath a surface finish or discarded in a bin as waste.

Philippe Starck's "Jim Nature" for Saba is a comparable exercise drawing attention to the aesthetic distinctiveness and beauty of a typically ordinary, cheap material that has uneasy relationship with fine wood craft. Starck references the early 20th century radio and television sets, which once housed the relevant media technology inside timber box constructions, a process that was completely replaced by moulded plastic products. Like PRT, "Jim Nature" features composite wood, in this case resin-impregnated sawdust and wood powder for outer casing of a television set. Both designs foreground the unique particulate quality of the materials. However, in comparing the two we can appreciate some of the distinctiveness of each design with regard to the expressiveness of the materials. The form and technique chosen for the television resulted in a relatively smooth finish, with less textural detail than PRT. The unique construction method of breaking the edge of the particle board with a hammer created a distinctive rough-hewn effect, with a varied, porous surface finish. The expressivity and distinctiveness of this effect evokes a peculiar combination of the senstances listed by Connor, including the brittle, the granular, as well as the fuzzy and rough (see Figure 3).



Figure 3. PRT final design.

Pied Beauty and intensity of contrast

An important element to Tiffany's notion of lyric substance is the fascination poets have expressed with certain manifestations of contrasting phenomena. Tiffany (2001) refers to a poem by Gerard Manley Hopkins titled *Pied Beauty* in which the poet praises "dappled things", such as "finches' wings", "landscape plotted and pieced", "a brindled cow" and many other examples (quoted in Tiffany 93). In Hopkins' verse pied beauty is expressed as more profound than simply the "strange" or contrary coming together of two opposing things. It is equally important that such phenomena give some deeper insight into a rudimentary protean force, something "original" and "spare" which suggests a dynamic relationship between creation and destruction. Hopkins captures this in the phrase "beauty is past change", meaning that pied beauty of the kind he

describes gives some indication of an in-between state, form and formlessness, or what Connor calls, the "quasi-choate" (2012).

The exact nature of the thing which Hopkins describes here is necessarily difficult to picture in a clear and distinct fashion. This is for two reasons: firstly, there is, as Tiffany notes, a kind of riddling taking place in his poetry which deliberately both discloses and obscures the referent of the poem, and secondly, the referent itself is a something which "hover[s] just below the threshold of objecthood" (2001, 93) and is thus difficult to describe in a straightforward sense. The subject matter of the poem is both the natural phenomena and the response of the poet, which is a combination of feeling, perception, imagination and cognition, given expressive form in language. We are often only dimly aware of the way these different elements of experience come together in a singular perceptual event.

The notion of beauty being the harmonious coming together of contrasting phenomena is a crucial element to the theory of beauty and aesthetics put forward by Alfred North Whitehead. Whitehead was a mathematician, physicist, philosopher, perhaps most famous for his work with Bertrand Russell on the *Principia Mathematica*. He moved from England in the twilight of his career to teach philosophy at Harvard. Here he departed from the key concerns of his previous logical and mathematical investigations. Whitehead began writing an expansive brand of philosophical speculation, attempting to weave together the findings of modern physics, including the theory of relativity, with a more general account of how perception worked.

Whitehead's work is particularly tricky to cite in a fragmentary way because he develops a highly technical, interconnected system of concepts that depend on each other for meaning. His mathematician's penchant for abstraction does have the advantage of making the work applicable across diverse domains of experience and the generous space he gives to aesthetics offers a level of appeal for the multitude of vaguely perceived yet important influences which are realised in a creative act.

Whitehead interprets beauty as being determined by two factors, one minor and one major. The minor factor is "the absence of painful clash, the absence of vulgarity"; the major factor is the introduction of new contrasts which increase the intensity of feeling (1967, 252). This is the high-level summary. A closer reading reveals a nested hierarchy of different terms with subtle, technical meanings:

the perfection of Beauty is defined as being the perfection of Harmony; and the perfection of Harmony is defined in terms of the perfection of Subjective Form in detail and in final synthesis. Also the perfection of Subjective Form is defined in terms of 'Strength'. In the sense here meant, Strength has two factors, namely, variety of detail with effective contrast, which is Massiveness, and Intensity Proper which is comparative magnitude without reference to qualitative variety. But the maximum of intensity proper is finally dependent on massiveness. (1967, 252-253)

It requires patience to make sense of it all. To begin with, it's essential to know that for Whitehead, "Subjective Form" does not necessarily mean human subject. Whitehead writes about perception in more abstract terms which apply to events influencing each other through time – it's worth remembering that he was writing at a time when it was common for philosophers of his stripe, with a background in mathematics and physics, to be thinking a good deal about theories of relativity. Subjective Form is the way one event responds to another: "how that subject feels that objective datum" (221). This might be the way I respond to myself as I was three seconds ago, the way the grass responds to the sun, or the way a designer responds to a pile of particleboard potentially quite tricky stuff to comprehend. The language of modern physics ("strength", "intensity", "massiveness") is applied to a wider field of reference with aesthetics as its key motivating force. There's also something algebraic in the syntax, with meaning emerging through the gradual building and manipulation of a system with subtle rules and obscure symbols. But the meaning and usefulness is there. Massiveness, which Whitehead describes as "variety of detail with effective contrast" is the key determining feature of beauty. This is more important than "Intensity Proper" which is less about specific qualities and more about force. To translate the language into something with a more obvious application, Intensity Proper might have something to do with irreverence, boldness, a raw show of force, whereas Massiveness is quality and detail dependent. The two typically go together.

The insights from Tiffany and Whitehead help make explicit the aesthetic achievement of PRT. The design brings a range of different contrasts into harmonious relation. These include the roughness of the broken particleboard and neat geometry of the circle; the even greater contrast between the smooth surface of the glass and the rough particleboard; the contrast between the transparent glass and the dense, opaque particleboard; the brutal and lo-fi method of breaking timber panel product with a hammer contrasts significantly with the precision and high-tech nature of digital machining; and the contrast between the typical brutality of the action of hammering and the relatively gentle, coercive ends to which it is put in this design.

The hammer

The hammer has been a favoured tool in philosophical thinking, particularly in the philosophy of technology. It's a kind of index to changing tempers and inflections in a gratuitous archive of speculations about relations between subject and object. Perhaps the most famous is Martin Heidegger's use of the hammer in *Being and Time* (2002) to articulate different elements of his philosophy of tool being. Heidegger uses the hammer as a paradigmatic example of equipment (*zeug*), objects that we use for specific ends. More recently, Bruno Latour (2002) turns to the hammer to outline a theory of technical action that is generous enough to include the different places, times and agents we connect with in using utensils. Latour emphasises the transformational power of tools in a way that captures the experience of designers immersed in the possibilities of the objects they use: "Those who believe that tools are simple utensils have never held a hammer in their hand, have never allowed themselves to recognize the flux of possibilities that they are suddenly able to envisage" (2002, 250). Rather

than being an extension of human capacity, the tool plus human is a completely new situation.

For the designer, PRT is as much about the hammer as any material, furniture typology, form or style. In this case, the hammer is among the most rudimentary tools used by designer-makers. It still possesses a reassuring intimacy with the actions it has evolved to accomplish. Despite, and in a sense due to this apparent simplicity, the hammer is also a particularly adaptable technology, open to a variety of subtle modifications in use. The hammer over its long history has evolved into literally thousands of variations including hammers for blacksmiths, jewellers, panel beaters and many more. In some senses it is like a ball, which Connor describes as a "magical thing" due to its "indeterminate kinds of affordance": "A ball is a magical object because its affordances, its ways of proposing itself for use, are at once irresistible and yet also so seemingly open. The more common an object is, the more various the uses it will propose, or make possible" (2011, 3). While the hammer is irresistibly about hammering, it is also versatile or "seemingly open" in its application and its form.

PRT involved a simple yet innovative use of the hammer. In woodwork hammers are typically used in combination with chisels and nails, or to force joints into place. However, in this design the hammer was used in combination with an anvil and a CNC router. The CNC router first produces the cut-line, a series (sometimes hundreds) of small perforations equidistant from each other along a predetermined path. This cut-line performs the dual role of informing where the hammer should land and where, in a controlled manner, the material should break. The hammer is then used in combination with an anvil to work the circumference of the circular cut-line with many small and repeated knocks, sometimes hundreds, in order to first crack and then break the unwanted material away (see Figure 4). The action of the hammer is limited to avoid unnecessary breakage, similar to how a panel beater or metalsmith works a material from edge to edge.

The hammer is essential in achieving the rough effect that allows the particleboard to express its specific material quality. Both the material and the tool depend on each other: the shorter, uniquely mashed-up grains of the particleboard permit certain kinds of breakage not possible with longer grain wood. The hammer allows this quality to become explicit by a controlled breakage, which leads to a completely different material effect than from sawing or chiselling.



Figure 4. Hammer, anvil and particleboard.

Conclusion

Rather than provide a framework or method for future research, we have chosen to adopt a digressive, analogy driven structure for this paper. In keeping with this approach, it is fitting to conclude with another analogy, which illuminates the specific kinds of insights we have brought into focus and suggests a future direction for the development of a more systematic approach.

Herb Greene's *Painting the Mental Continuum* (2003) is an exemplary application of Whitehead's philosophy to a practice of creative making. Greene is an architect and artist; in the context of his book he focuses on his art practice of collage making, which involves combining images that "persistently move" or interest the author with his "own painted interpretive forms" (14):

After transferring an image to a canvas, I surround and overpaint it with a visual commentary, an organised rumination stemming from details, parts, and wholes that respond to what seems to me some of its important forms and messages. (14)

Greene then uses Whitehead's philosophical vocabulary and concepts to "gain fresh content and precision in [his] explanations" (23). More so than formal and semiotic analysis in the style of thinkers like Roland Barthes, Whitehead's concepts and Greene's use of them are distinctive in the place they give to the active role of the imagination in perception, reasoning and making. The process of interpreting an image is also distinctively informed by Whitehead's focus on the perceptual act as the outcome of events interacting with each other in time. The human subject is one perceptual event amid others that cuts across and distorts the relationship of different events (Greene,

30). The act of interpreting and making and Greene's analysis of it bears the imprint of this unique philosophical emphasis. In the context of this paper, the designed object has functioned in a way that is similar to the images Greene uses in his collages. This paper has been "an organised rumination" in the sense described by Greene, where the inspirational object is given a new interpretation and situated in what Whitehead describes as the "enduring personality" of a design writer (quoted in Greene, 21). Like Greene's collages, which surround the original stimulus in a penumbra of variously obscure and distinct metaphorical, theoretical and contextual associations, this paper has situated PRT within a flow of curated events that have extended and transformed its meaning.

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