

Articoli/16:

Insights from the metaphorical dimension of making

Clive Cazeaux

Articolo sottoposto a *peer-review*. Ricevuto il 10/04/2015. Accettato il 13/04/2015

Abstract: This paper argues that working with art materials can generate novelty through metaphor, and that these metaphors can provide new epistemological resources for visual arts research. In visual sociology, Gauntlett demonstrates that working with art materials enables a freedom of construction and formation that helps the makers to produce objects that embody novel, insightful metaphors about their lives. I go beyond the sociological study by (a) showing how the generative aspect of making can be attributed to the metaphorical nature of material, and (b) developing themes of 'collision' and 'demand' from Max Black's and Paul Ricoeur's theories of metaphor to illuminate the process whereby the manipulation of material in art produces novelty. Material can be metaphorical in four ways: (1) material cannot be described without reference to a perceiver; (2) material, as something that is manipulated in art, has to be considered in relation to the other materials that it will be acting upon or with; (3) in handling the material, the handler is also, if not equally, acted upon; and (4) in representational art, the manipulation of materials creates particular effects that call for description in terms drawn from the represented subject. These operate through collision and demand to suggest lines of enquiry for visual arts research, illustrated with reference to Vija Celmins's charcoal drawing *Night Sky #19* (1998). The benefit to visual arts research is that material is shown to be an independent source of epistemic enquiry, beyond the dominant conceptions of material as a vehicle for self-expression and the means to achieve certain kinds of effect.

In a recent study within visual sociology, individuals working with Lego bricks were encouraged to build forms that could act as metaphors for aspects of their lives, e.g. a dog as an expression of loyalty¹. When describing the forms, the individuals made novel and insightful comments about their lives that, according to David Gauntlett, the sociologist leading the study, would not have been expressed in the absence of any Lego play². A conclusion drawn by Gauntlett was that the making process enabled a freedom of construction and formation, where the metaphorical, playful aspect of the results called for descriptions, including further metaphors, that brought surprising and revealing perspectives to bear on the individuals' lives³.

¹ D. Gauntlett, *Creative Explorations: New Approaches to Identities and Audiences*, Abingdon 2007.

² Ivi, p. 115.

³ Ivi, p. 37; p. 70.

What intrigues me about Gauntlett's study is the idea that working with materials, with one's hands, allows for the creation of forms and effects that, through description, bring new concepts to bear on the forms, their material and their context. Working with materials, it would seem, requires an attention to the recalcitrance of matter and process that throws up detail and particularity that, rather than resisting insight and conceptual reappraisal, actually stimulate it. My interest lies within the context of visual arts research. In the last fifteen years, there has been a rapid expansion of interest in the arts as forms of research: the creation of artworks that, in some way or other, address a problem or question that affects art, its history or theory, or its engagement with other subjects or social situations. The extent of the interest is evident in the number of books that have appeared on visual arts research since 2001⁴. Two factors are largely responsible for this new field: (1) universities' research funding has become dependent upon the volume and quality of their research output (in Europe, Australasia, and recently the USA), and this has *obliged* art in art departments *to become research* in order to attract funding; (2) the dialogic, administrative turn in the arts means artists are now adopting research methods from other disciplines, thereby creating an aesthetic from conventionally non-aesthetic means. The notion of visual arts research has many detractors, typically on the grounds that subjecting art to cognitive or epistemological examination amounts to the denial of art's autonomy and a dilution of its power⁵. I do not support this view, since I think it relies upon the notion of an essence of art as the source of art's autonomy and power, a notion that is deeply problematic after conceptual art. I shall not argue the point here. My view is that visual arts research is an exciting development because it is a new chapter in the millennia-old contest between aesthetics and epistemology.

In this paper, I want to explore the idea that working with materials can generate novelty through metaphor, and that these metaphors can provide new epistemological resources for visual arts research. At present within the visual arts, material is largely understood either as a vehicle for self-expression or as the means to achieve certain kinds of effect. Equally, there is the concern, held by many practitioners and opponents to visual arts research, that the significance of the research is located in the conceptual or theoretical framework that surrounds the making, rather than in the making itself. I hope this study will

⁴ A.W. Balkema and H. Slager (eds.), *Artistic Research*, Amsterdam 2004; E. Barrett and B. Bolt (eds.), *Practice as Research: Approaches to Creative Arts Inquiry*, London 2007; S. Beckstette, T. Holert, and J. Tischer (eds.), *Artistic Research (Texte zur Kunst)*, Berlin 2011; M. Biggs and H. Karlsson (eds.), *The Routledge Companion to Research in the Arts*, Abingdon 2011; P. Carter, *Material Thinking: The Theory and Practice of Creative Research*, Melbourne 2004; J. Elkins (ed.), *Artists with PhDs: On the New Doctoral Degree in Studio Art*, Washington, DC. 2009; C. Gray and J. Malins, *Visualizing Research*, Aldershot 2004; K. Macleod and L. Holdridge (eds.), *Thinking Through Art: Reflections on Art as Research*, Abingdon 2006; G. Sullivan, *Art Practice as Research*, Thousand Oaks, California 2005; J. Wesseling (ed.), *See It Again, Say It Again: The Artist as Researcher*, Amsterdam 2011.

⁵ See, for example, J. Baldessari and M. Craig-Martin, *Conversation*, in S.H. Madoff (ed.), *Art School (Propositions for the 21st Century)*, Cambridge, Massachusetts 2009, pp. 41-52.

be an initial step towards demonstrating that the manipulation of materials in art has a metaphorical nature that can be the basis for epistemic enquiry. I set out Gauntlett's sociological work on metaphor and making, but go beyond his study by (a) showing how the generative aspect of making can be attributed to the metaphorical nature of material, and (b) developing themes of 'collision' and 'demand' from Max Black's and Paul Ricoeur's theories of metaphor to illuminate the process whereby the manipulation of material in art produces novelty⁶. One piece of art will be discussed at length: the charcoal drawing *Night Sky #19* (1998) by the American artist Vija Celmins⁷. A reproduction is not included in this essay, but one is freely available on the website of the United Kingdom's Tate gallery.

1. Making as metaphor in visual sociology

The idea that making has a metaphorical dimension that can lead to insights is offered by David Gauntlett as part of his visual sociology⁸. First identified as a field in the 1990s, visual sociology uses visual materials, typically photographs and videos, often made by the researcher, as the basis for discussions or interviews with participants whose experience is the subject of the study. Gauntlett's interest is in «finding new ways of generating knowledge about the social world» and, in particular, to determine whether «new ways of capturing people's expressive reflections on their own lived existence [...] can meaningfully contribute to social understanding»⁹. Recent studies in visual sociology on identity (by, among others, Bloustein, Horsley, and Hüttner) have invited the participants (in contrast to the researchers) to produce the visual materials, e.g. drawings, collages, and videos, and then to reflect upon what they had produced and how their materials expressed their identities and lives¹⁰. The pattern of activity-followed-by-reflection generates information which, according to the researchers (in Gauntlett's words), «would not have been revealed by other means»¹¹. As far as Gauntlett is concerned, these studies display two important properties: (1) the use of visual materials gives the participants the opportunity to express thoughts that might not otherwise be expressed, and (2) the visual materials are able to stimulate novel expressions of participants' identities on the basis of the metaphorical meanings found when interpreting the drawings,

⁶ M. Black, 'Metaphor', *Proceedings of the Aristotelian Society*, vol. 55 (1954-1955), pp. 273-294; and Id., *More about metaphor*, in A. Ortony (ed.), *Metaphor and Thought*, 2nd edition, Cambridge 1993, pp. 19-41; P. Ricoeur, *The Rule of Metaphor: Multi-Disciplinary Studies of the Creation of Meaning in Language*, trans. R. Czerny, K. McLaughlin and J. Costello, London 1978; and Id., *The metaphorical process as cognition, imagination, and feeling*, in S. Sacks (ed.), *On Metaphor*, Chicago 1978, pp. 141-157.

⁷ V. Celmins, *Night Sky #19*, 1998, charcoal on paper, Tate, <http://www.tate.org.uk/art/art-works/celmins-night-sky-19-ar00163> (accessed 25 March 2015).

⁸ D. Gauntlett, *Creative Explorations*, cit.

⁹ Ivi, p. 37; p. 70.

¹⁰ Ivi, pp. 92-127.

¹¹ Ivi, p. 115.

collages, and videos, etc. This leads him to conduct a study in which participants are invited to build identities in metaphors using Lego bricks, yielding new expressions of identity along the following lines:

On the left there is «a skeleton adrift next to my boat», which represents «a foreboding sense of time» passing in [Katie's] life. The goal posts ahead of her represent «striving to achieve happiness», but these are «beyond a line I have to cross». The archway of goals includes a dog, representing her partner (in a good way – loyal and reliable)¹².

The use of Lego bricks is significant. It is based on Lego Serious Play, a method developed in the late 1990s by the Danish construction-toy manufacturer initially «to unlock imagination and innovation within the company» but now offered as a consultancy and facilitation process «to enhance innovation and business performance»¹³. As Gauntlett notes, the method is based on the constructivism of Jean Piaget and the concept of «flow» coined by Mihaly Csikszentmihalyi¹⁴. Piaget's constructivism asserts that knowledge is neither a copy of its object nor the imposition of concepts on the world but instead is «a perpetual construction made by exchanges between the organism and the environment, from the biological point of view, and between thought and its object, from the cognitive point of view»¹⁵. Flow, for Csikszentmihalyi, is a state of immersion in an activity where the sense of self and world as opposites drops away to be replaced by «a sense of participation»; it is a state «in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it»¹⁶. As far as Lego Serious Play is concerned, constructivism and flow work together through the «invitational» nature of Lego bricks, or what might be described as their affordance-rich nature – they invite being picked up and joined together to create something – and the state of immersion that results once one becomes lost in exploring the possibilities of what can be built, with the outcome that the player creates a form that would not have come about through pen and paper or imagination alone. Metaphors are created when the player begins to describe the form in conversation, to assign verbal meaning to it or to relate it to an area of their life¹⁷. Thus, there are two acts of meaning-creation: the constructivist flow of playing with Lego bricks to produce an object, and the ascription of meaning to the created object by locating in relation to a life story.

¹² Ivi, pp. 172-173.

¹³ *Lego Serious Play marketing material*, 2015, <http://www.lego.com/en-gb/seriousplay/> (accessed 10 April 2015).

¹⁴ D. Gauntlett, *Creative Explorations*, cit., pp. 130-131.

¹⁵ Ivi, p. 130 [Piaget, quoted in Gauntlett, *Creative Explorations*].

¹⁶ M. Csikszentmihalyi, *Flow: The Psychology of Optimal Experience*, New York 1990, p. 4.

¹⁷ K.-P. Schulz and S. Geithner, *The development of shared understandings and innovation through metaphorical methods such as LEGO Serious Play™*, in *International Conference on Organizational Learning, Knowledge and Capabilities*, University of Hull, UK 2011, p. 2. http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/olkc6/papers/id_127.pdf (accessed 17 March 2015).

What I think is valuable here as regards visual arts research is the idea that engagement with physical materials, e.g. collage, drawing tools, video equipment, Lego bricks, can be the occasion for the generation of new meaning. The sociological studies by Gauntlett and his predecessors show how interacting with materials creates a state of play in which connections or forms made possible by the materials, in their interactions with the participants, are allowed to come into being. The key phrase here is «made possible by the materials, in their interactions with the participants». The materials, together with the situation in which they are set, e.g. workshop, studio, seminar room, have qualities that invite hands-on interaction from participants in an immersive, playful, flow-like way that produces new, significant forms or configurations. The suggestion is that materials, when placed in a conducive environment, one that encourages play and interpretation, possess an articulacy, a capacity for being arranged, worked, transformed, to produce forms that are rich, determinate and complex, that invite or demand description. The «invite or demand» signals that the novel forms are produced in a context *that is looking for meaning*, as in the sociological studies that are exploring the meanings that the created objects might depict in the participants' lives. In other words, perception is sensitive to the signifying potential of the manipulated material. In this regard, the Lego brick is an exemplary material: not only does it encourage play and connection but also, with its studs that can plug into any and every other socket-bearing brick (or other Lego item), it exemplifies the articulacy whereby a material is able to flex, shift and change its state in the interest of generating forms with signifying potential.

Given that my focus is the capacity of artistic manipulation of materials to create new knowledge, it is important to clarify the role played by materials in the generation of meaning. In the visual sociology studies reported by Gauntlett, there are two acts of meaning-generation: (1) the constructivist flow of playing, for example, with Lego bricks, to produce an object, and (2) the ascription of meaning to the created object by locating in relation to a life story, for example, «there is “a skeleton adrift next to my boat”, which represents “a foreboding sense of time” passing in [Katie’s] life»¹⁸. Metaphor is only recognized to enter the process at the point when the created object is described, in keeping with the traditional view of metaphor as a verbal operation. It is possible to distinguish between the two acts of meaning, with metaphor occupying the second act, because the sociological research does not dwell on the properties of the materials; the materials are there simply because they have the potential to expand the narrative resources of the participants. But this is to be expected. As Gauntlett declares, his sociological interest lies less in what academics or experts do with visual materials (he is quite scathing of much academic work done under the heading of «visual culture») and more in «actual research regarding the use that people do, or can, make of images and the visual in everyday life»¹⁹. But in the

¹⁸ D. Gauntlett, *Creative Explorations*, cit., pp. 172-173.

¹⁹ Ivi, p. 119.

context of visual arts research, where I think expert knowledge is expected, more can be said about the capacity of materials to generate meaning (as it is known by the artist), and metaphor will be active in the process, both in *and prior to* the act of interpreting the created object.

2. Material as metaphor in visual art

How is metaphor present in a visual artist's manipulation of material prior to the act of interpreting the created object? Materials, technologies, found objects and situations have properties *of their own*, and a significant part of the pleasure in making is exploring *what these properties can do, where they can lead, what they can open onto, what they can evoke, and what they make possible*. The metaphorical dimension lies in the idea that materials, etc. have properties *of their own* and that manipulating the materials artistically can take their properties *somewhere else*, have them *evoke or become other properties*. Strictly speaking, this could be seen as metaphorical in two ways. (1) My descriptions are metaphorical. I attribute the idea of ownership to an inert substance, and present the effects of material manipulation as movement, an act of «giving voice to something», and a change of identity. The fact that I adopt – or that I cannot avoid adopting – metaphorical language is not the main point. The omnipresence or unavailability of metaphor is well-documented in philosophy and cognitive linguistics²⁰. Its omnipresence is in keeping with the epistemology and ontology I am presenting here but, for reasons of space, the point will not be developed. (2) It is the second way in which metaphor is active that is of greater interest. To claim that materials, etc. have properties *of their own* and that manipulating them artistically can take their properties *somewhere else*, is to assert that the action of moving properties from one domain to another, *normally attributed to metaphor*, functions here as an ontological structure, as something that affects our understanding of how properties are attached to objects in the world. This happens in virtue of the fact that the material has the capacity to become something else through being handled or transformed by the artist, and through coming into contact with other materials.

This is an initial characterization of how metaphor is present in an artist's manipulation of material. However, this will change once we look at an example, but it will change in a way that reinforces the relationship between metaphor and material. Let's take charcoal as an example. In terms of its own properties, it is black, dry to touch, brittle, and easy to crumble. But to describe these qualities as *charcoal's own* is arguably to run into difficulties straight away, because all of them involve perception and therefore determinations introduced by the perceiver, e.g. colour that is perceived as black, dry according to my sense of touch. It could be claimed that these qualities belong not to the material but are instead the results of interactions between the material and the perceiver.

²⁰ The omnipresence of metaphor thesis in philosophy and cognitive linguistics is explored in C. Cazeaux, *Metaphor and Continental Philosophy: From Kant to Derrida*, New York 2007.

This is the distinction between perception-independent, primary qualities, and the perception-dependent secondary qualities introduced by Democritus but formulated in modern philosophy in the seventeenth century by John Locke²¹. Primary qualities include solidity, extension and shape, and are held to belong to their objects, whereas secondary qualities, such as colours, smells and tastes, are the results of powers within objects to produce effects in us. The primary-secondary quality distinction is challenged by George Berkeley in the early eighteenth century on the grounds that any attempt to attribute qualities to an object that are independent of perception, and therefore supposedly primary, overlooks the fact that these qualities are still being perceived in the mind of the person who is maintaining the distinction, and so the requirement of perception-independence does not hold²². It just so happens that the qualities of charcoal I described – black, dry to touch, brittle, and easy to crumble – are secondary qualities. But then most of charcoal's qualities are secondary, qualities that will change dependent upon the conditions in which they are perceived, because it is a material that undergoes transformation into other forms very easily upon contact with handlers (artists) and other objects. It is possibly a characteristic of materials used in an art context that they will be ones with an abundance of qualities that can change upon contact and manipulation, i.e. ones that are rich in secondary qualities, since it is this abundance that the artist wants to explore in their practice.

This is not the place to tackle the primary-secondary qualities distinction in depth, but it does raise what could be said to be the first metaphorical aspect of material and its manipulation. The aspect I have in mind is not one that is commonly attributed to metaphor, but it is a feature noted by some authors nonetheless. It is the observation that metaphor occurs because all concepts have within themselves the potential to be applied beyond their customary domain. On this basis, metaphor is not a deviation from the correct, literal usage of a concept, as it has been theorized historically, but a function of the flexibility that is necessary *for terms to become concepts in the first place*. Thomas Kuhn makes this point as part of his discussion with Richard Boyd over the status of metaphor in the construction of scientific theories:

Until the referents of 'game' and of other terms which might be juxtaposed with it in metaphor [e.g., 'war'] have been established, metaphor itself cannot begin ... [yet it is] the metaphorical juxtaposition of the terms 'game' and 'war' [e.g., in the metaphors

²¹ The most famous fragment in which Democritus makes the primary-secondary quality distinction is: «By convention sweet and by convention bitter, by convention hot, by convention cold, by convention colour; but in reality atoms and void», frequently cited as Sextus Empiricus, *Against the Mathematicians*, VII.135. The fragment, with commentary, can be found at C.C.W. Taylor, *The Atomists, Leucippus and Democritus: Fragments*, Toronto 1999, D16, p. 9. The distinction is reasserted in J. Locke, *Essay Concerning Human Understanding*, ed. R. Woolhouse, London 1997, II, viii, §§ 9-10, p. 135. For further discussion of the primary-secondary quality distinction in Democritus, Locke, and the history of philosophy, see L. Nolan (ed.), *Primary and Secondary Qualities: The Historical and Ongoing Debate*, Oxford 2011.

²² G. Berkeley, *Principles of Human Knowledge*, London 1988, §23. Original work published 1710.

«War is a game», «professional football is war»] [which] highlights other features, *ones whose salience had to be reached* in order that actual games and wars could constitute separate natural families²³.

Kuhn's observation amounts to the claim that it is only in contrast to the new, «quirky» salience suggested by a metaphor that its component expressions are general «family» terms. A similar view is offered by George Lakoff and Mark Johnson from the perspective of cognitive linguistics²⁴. For Lakoff and Johnson, metaphor takes place in the body. Most metaphors, they argue, involve conceptualizing a subjective experience in terms of bodily, sensorimotor experience, e.g. understanding an idea (subjective experience) in terms of grasping an object (sensorimotor experience)²⁵. This happens, Lakoff and Johnson affirm, when neural connections between parts of the brain dedicated to sensorimotor experience and parts dedicated to subjective experience are coactivated. From the point of view of the concepts involved, the inferences flow in one direction only, from the sensorimotor source domain (e.g. grasping an object) to the subjective target domain (understanding an idea) on the grounds that sensorimotor experience possesses a «greater inferential complexity»²⁶. This complexity, they explain, comes from the fact that, as beings immersed in the sensory world, the relationships we perceive between everyday objects are the principal, if not the only, source of connections and orientations which can be applied to subjective, abstract, less phenomenal or tangible relationships.

What makes concepts – they assert – is their inferential capacity, their ability to be bound together in ways that yield inferences. *An embodied concept is a neural structure that is actually part of, or makes use of, the sensorimotor system of our brains*²⁷.

Thus, for Lakoff and Johnson, metaphor *is embodied* in the sense that metaphor is the «openness» or «inferential potential» (my phrases) of the neural structure that is part of the sensorimotor system of our brains; that is to say, the conceptual cross-domain mappings performed by metaphor are extensions of the neural processes employed by the body in coping with its environment.

From Kuhn and Lakoff and Johnson, we get the claim that the formation of concepts, ideas about what we take to belong to something, occurs hand-in-hand with the propensity for those concepts to be applied to things which they do not belong. In relation to the metaphorical nature of manipulated material, including charcoal, the difficulty of describing charcoal's «own» qualities without resorting to determinations introduced by the perceiver, e.g. colour that is perceived as black, dry according to my sense of touch, can now be presented

²³ T. Kuhn, *Metaphor in science*, in A. Ortony (ed.) *Metaphor and Thought*, Cambridge, pp. 413-414.

²⁴ G. Lakoff and M. Johnson, *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*, New York 1999.

²⁵ Ivi, p. 45.

²⁶ Ivi, p. 57.

²⁷ Ivi, p. 20, original emphasis.

as an instance of the belong–not-belong relationship identified by Kuhn and Lakoff and Johnson. I know what charcoal is, I have a sense of what it can do, and there will be different kinds that I can buy, e.g. different degrees of hardness. But as soon as I come into physical contact with it or apply it to a surface, an entirely new set of qualities becomes possible.

3. Articulating charcoal

Charcoal can demonstrate the metaphorical nature of manipulated material in other respects. There is the scope of mark-making itself, and the surface upon which the marks will be made. If the metaphorical aspect just noted acknowledges that any notion of ownership or belonging is merely a preface to application or transformation, then the next metaphorical aspect is the realization of the transformation. The behaviour of charcoal on smooth paper is different from its behaviour on textured paper. Smooth paper will encourage the charcoal to glide across the surface, enabling cleaner, continuous lines, sharper edges, and longer, finer smudges, whereas textured paper will try to grip the charcoal, slow it down, break it up, interrupt any attempt at fine, continuous lines, and seek to claim its dust for the pore-like surface. There is nothing to say that the paper has to remain as a flat surface. It might be scrunched into a ball with pieces of charcoal inside, and shaken or kicked or sat on or flattened by a steam-roller. Here is the second metaphor: charcoal and paper are intersecting domains, the properties of one made to interact with the properties of the other through the actions of the artist to create a range of different kinds of mark with various qualities that cannot be attributed to either the charcoal or the paper. An objection might be that I am assigning too much agency to the materials, and overlooking the intention of the artist; it is not the materials that achieve these qualities, it could be argued, but rather their careful application in order to realize specific qualities as planned in advance by the artist. It is true that an artist *familiar* with the mark-making possibilities of charcoal on paper might be able to exercise such knowledge in advance, but they *would have had to learn what was possible* from earlier interactions between charcoal and paper, so there would have been a time when they were equal partners, co-authors. But I offer the example in the context of a paper on the insights that might be gleaned from *working with* materials in the interests of generating novelty, so the model of the artist directing their materials in such a way that all outcome qualities are known in advance is arguably not applicable here. «Working with» is emphasized because I am pursuing the thesis that materials worked upon by the artist are active in introducing qualities and meanings to a work above and beyond any intention held by the artist.

Charcoal also leaves a mark on whatever surface it comes into contact with. Holding a stick of charcoal in your hand (a) dirties your hand, but also (b) leaves you in no doubt whatsoever that wherever your hand goes, a mark will be left. As a result, it can work back through your body and make you think about

the posture you want to adopt in preparation for making a mark. Charcoal is a substance that makes its holder aware that all points of contact from now on will leave a trace, that the holder's relationship to their environment is now one of «mark-maker». Here is the third metaphor: by holding a stick of charcoal in one's hand, a person is shifted from one set of possible responses to an environment to an entirely different set: I might hold my body in a different way, approach objects (to make a mark) that I wouldn't approach before, and carry out actions I wouldn't have otherwise conceived, e.g. stamping my feet, to crush the charcoal.

The metaphorical nature of material has been demonstrated so far just by talking about the materials themselves and what arises from their manipulation by the artist. This would be work that might be considered abstract (non-figurative or non-representational), performative (a work that displays its own production) or indexical (after Peirce, a sign that is a trace of its cause, e.g. smoke signifying a fire). But a further metaphorical nature of material can be found if we look at representational art. Here there will be the question of what the medium says about the represented object. It will not be a merely imitative process, in which a point-to-point correspondence between object and drawing is sought, and *cannot be one*, for, as we have seen, the material and its manipulations make their own demands and so cannot meekly adhere to every detail of the represented object. The drawing will instead be an entire series of negotiations whereby (to continue with the same example) the qualities of charcoal and paper address or «speak about» their subject matter. While the qualities of charcoal and paper are certain in some respects, e.g. certain enough to be identified, purchased, graded for quality, etc., they are far from certain in others because of the many interactions and forms that they permit through manipulation. So there will have to be a thinking and working through of how the many behaviours of charcoal and paper provide ways of addressing the subject matter. Again, «ways of addressing» does not refer to representation conceived as imitation or isomorphism, but to the ways in which the many interactions and forms that are possible via the manipulation of charcoal and paper might suggest a kind of notation or framework that refers to and stimulates our appreciation of the subject. How will tone – black, white, and shades of grey – be used? What kinds of marks will be made? Will a hard or soft, crumbly charcoal be selected? What stance will be taken with regard to erasure, for the removal of marks in the interest of ... choose your interest: a «clean» image; an emphasis on chiaroscuro; an image that promotes the unity of the object over the expressiveness of line, where expressiveness might obscure the object; or where addition, subtraction or palimpsest are governing themes?

As an example, we might look at one of Vija Celmins's *Night Sky* drawings (Celmins 1998). Reproductions of many drawings in the series are freely available to view online, for example, on the UK Tate gallery's website²⁸. These are depictions of night skies, based on photographs in astronomy books,

²⁸ V. Celmins, *Night Sky* series, *Tate*, <http://www.tate.org.uk/art/artworks/celmins-night-sky-19-ar00163> (accessed 25 March 2015).

newspapers and magazines, and tonally very subtle. At first glance, given the resemblance between drawing and photograph, it might seem as if these works are in fact exemplars of mimetic art, which would surely run against my line of argumentation. But it is the behaviours of the charcoal, paper and erasure process that make the difference. In *Night Sky #19*, as critic Stephanie Strain notes, the charcoal is «rubbed deep into the paper in a slow, accumulative process»²⁹. An electric eraser is then used to burrow «through these many layers of dusty charcoal to create starry pinpricks of light as a kind of negative drawing – a process that moves backwards towards the original colour and surface of the paper»³⁰. The effect is the production of a range of fine greyscale variations between the black of the charcoal and the white of the paper that becomes the basis for a relationship between charcoal dust and the emission of light from distant galaxies. This might seem to be not the most inventive relationship. Doesn't it just amount to saying «more charcoal» equals «less light» which could easily be achieved through careful shading with a charcoal stick? No, because the slow, accumulative rubbing of the charcoal into the paper and the precise, delicate acts of erasure, to the point where Celmins is working with charcoal as specks of dust, create senses of the calibrated and the particulate that interact with ideas of the celestial and the astronomical more strongly than any simple, repeated act of shading. Here we can see how the articulacy of material and metaphor work in tandem: the manipulation of materials, carried out in response to a photograph of a night sky, creates particular effects – subtle shifts in tone, specks of charcoal dust, spots of intense white – that call for description, and concepts are drawn from the field of associations surrounding the night sky.

In summary, in relation to art, the articulacy of material can be shown to implicate or draw upon metaphor in four ways: (1) the difficulty of describing a material's own qualities without referring to the interaction with a perceiver or other object corresponds to the mutually defining nature of metaphor and the inferential openness of concepts; (2) the mutual-defining relationship between belonging and interaction from (1) is exercised artistically so that the properties of one material are made to interact with the properties of another to create a range of qualities that cannot be attributed to either; (3) in handling the material, the handler is also, if not equally, acted upon, so that their actions are moved from one kind of compartment to another; and (4) in representational art, the manipulation of materials creates particular effects that call for description in terms drawn from associations surrounding the subject. I shall refer to this four-fold articulacy as the «metaphoricity» of material.

²⁹ S. Strain, *Summary: Vija Celmins's Night Sky #19*, Tate 2010, <http://www.tate.org.uk/art/artworks/celmins-night-sky-19-ar00163/text-summary> (accessed 25 March 2015).

³⁰ *Ibid.*

4. Metaphor as the generator of knowledge

The relevance of these considerations to visual arts research is that metaphor is widely regarded to be a generator of knowledge. If the artistic manipulation of materials functions metaphorically, then maybe this manipulation can be understood as a contribution to knowledge. To underpin the cognitive, life-illuminating dimension of Lego Serious Play, Gauntlett draws upon epistemologies of metaphor from Paul Ricoeur and Lakoff and Johnson. The principles he takes from them are that metaphor is central to human experience, and operates not just linguistically but conceptually, «structur[ing] how we think about our experience of the world»³¹. I also want to draw upon Ricoeur and one of his influences, Max Black, for this reason, but more importantly because they emphasize the novelty of metaphor. Central to both Black's and Ricoeur's theories is the claim that, when two concepts meet in a metaphor, there is an interaction between them: a process that stimulates association between the two concepts and looks for previously unrecognized perspectives whereby one informs the other. Black terms this an implication complex³². The two subjects in a metaphor are complexes of implication: systems of association shared by the linguistic community that determine all the various ways in which their subjects might be perceived and understood. In a metaphor, the two complexes interact and mutually sieve the implications that they have for one another to create a third implicative complex, a new way of seeing the metaphor's primary subject, together with new implications for the secondary subject, neither of which were available prior to the metaphor³³.

Ricoeur also presents metaphor as an interaction, but one that occurs between poetic and speculative discourse³⁴. Poetic discourse is the domain in which new expressions are created but not conceptualized or translated; it is where inventive metaphors receive their first outing. Speculative discourse is the domain of the concept and, furthermore, the domain in which the concept can be predicated of an object. It is this discourse which focuses the play of meanings thrown up by metaphor into a proposition which revivifies our perception of the world. As intersecting discourses, the poetic creates the utterance «*A is B*» together with all the «nonsensical» possibilities that it implies, and through its encounter with the speculative, the play of possibilities is resolved and *A's B-like* nature is conceptualized. Metaphor «is living – Ricoeur proclaims – by virtue of the fact that it introduces the spark of imagination into a “thinking more” at the conceptual [speculative] level»³⁵. Although the interactions in Black's and Ricoeur's accounts are different – a mutual sieving between terms with Black, and the contrast between the poetic and the cognitive with Ricoeur – they nevertheless reinforce one another as contrasting accounts of the dual

³¹ D. Gauntlett, *Creative Explorations*, cit., p. 149.

³² M. Black, *More about metaphor*, cit., p. 28.

³³ *Ibid.*

³⁴ P. Ricoeur, *The Rule of Metaphor*, cit.

³⁵ *Ivi*, p. 303.

aspects of metaphor's potency: an association-generating collision (first aspect) that illuminates and expands the concepts involved (second aspect). There is an impulse towards new meaning in metaphor that works its way through the possibilities thrown up by the unconventional pairing of concepts to arrive at forms that are simultaneously poetic and claim-making.

Thus, with Black and Ricoeur, I am interested in the emergence of something new: new perspectives on or expanded concepts of the metaphor's subject terms. The epistemological value is two-fold: (a) we witness how the collision between concepts turns the meanings that are said *to belong* to concepts into *associations*, so that they interact to produce a novel third term (a new implication complex or a state of tension); I shall refer to this as «novelty by collision»; and (b) the novelty of this new interaction or tension is defined by the fact that *it is sustained*; each concept makes a demand upon the other that isn't answered with a simple 'yes' or 'no', but rather involves the extended working through or sieving of possibilities. This is the element that Black emphasizes with notions of «implication» and «complex», and that Ricoeur promotes with his model of tension between discourses. I shall call this «novelty by demand», as I think, of all the words used so far, «demand» best conveys the notion of one concept drawing upon and seeking benefit or expansion from another. The process is epistemological in that the map of human concepts, and their carving up of the world, is revised. The tension and the implication are sustained by all the various ways in which one concept can be stretched, its predicates turning to associations, to become about the other and, in so doing, stretching what the other can be. It corresponds to what the cognitive theories, for example, from Lakoff and Johnson³⁶, and Gibbs³⁷, refer to as conceptual mapping between source and target domains, but with Black and Ricoeur, there is more emphasis on this being a creative process.

5. The manipulation of material as the basis of new meaning: Celmins's *Night Sky* #19

How might these epistemological aspects of metaphor apply to visual arts research? I think new ways of generating conceptual novelty from material practice might be found if the four metaphorical dimensions of material already noted are considered in relation to the «novelty by collision» and «novelty by demand» drawn from Black and Ricoeur. Multiplying the ideas of materiality and novelty, I propose, will demonstrate how the manipulation of material can be the basis of new meaning. This is to expand the epistemological tools available to visual arts research, a subject that is still in its infancy, and to address the worry held by practitioners that the source of significance is all-too-readily identified

³⁶ G. Lakoff and M. Johnson, *Philosophy in the Flesh*, cit.

³⁷ R.W. Gibbs, *The Poetics of Mind: Figurative Thought, Language, and Understanding*, Cambridge 1994.

with the conceptual or theoretical framework that surrounds the making, rather than the making itself.

Let's work through the multiplication of materiality and novelty in relation to Celmins's *Night Sky* charcoal drawings, with *Night Sky #19* as a focus for attention. The drawings have not been produced as part of an academic research project. My ambition in this paper is to present the first steps towards an epistemology of material practice for visual arts research. It will be the job of a longer study to finalize the epistemology and to situate it in relation to «live» research projects. But the lack of formal research application at this point is not a problem as far as an initial setting out of the epistemology is concerned. The intention is to demonstrate how *the metaphors active in their production* can be sources of insight that could be recognized as contributions to knowledge within an academic research project. As we saw with Gauntlett and with the metaphorical nature of material manipulation, the understanding is that we are working in an environment that is interested in *and wants to describe* the changes brought about by transforming materials. The recognition of what material properties can *do*, where they can *lead*, what they can *open onto*, rests upon the changes being located in a context *that is looking for meaning*. The point is that Celmins's drawings will be the occasion for descriptions that could inform a research project, as I shall indicate. Furthermore, starting from them as drawings will show how research questions can arise from a body of artistic practice. The fact that the drawings depict recognizable scenes, i.e. night skies, means the concept of «night sky» and its associations will play a large role in directing the possibilities of the materials and their interactions. This will also apply to artworks produced within a research context where questions and key concepts provide the framework for the practice. This suggests that «metaphoricity of material» point (4), description in terms drawn from associations surrounding the subject, is likely to be the most relevant of the four points. It is not that the other «metaphoricity of material» points don't apply. It is just that (1) any uncertainties over a material's own qualities and (2) the qualities generated by material-upon-material interaction will immediately be set to work illuminating concepts of night sky, astronomy, telescoping, photography, etc. The governing role of the representational image also means that the drawings have not been produced with the intention of displaying (3) the effect of handling the material upon the artist, for example, through a series of gestural marks that stand as indices of bodily movement.

In terms of «novelty by collision», part of the delight of Celmins's night sky drawings is that they create the tensile state of charcoal-on-paper-as-night sky. Initially, these drawings might not seem the best examples to demonstrate the novelty of what can emerge through playing with materials, since their form appears to be governed, if not restricted, by original photographs. These seem to be works of representation rather than play. The works correspond immediately to the category of «drawing», and we can see straight away that they are drawings of night skies or photographs of night skies, as we are told by prominent gallery

and catalogue texts. The danger is the one that Plato calls attention to in the *Republic*: we mistake the drawings for being copies of photographs that just happen to be made out of charcoal – full stop; that’s all³⁸. The fact that charcoal, paper and eraser can be combined in this way is all too easily overlooked or dismissed because, with the drawings in front us, or represented on a page or screen, it seems to be just that: *a fact*. But it is an entirely different fact that is remarkable: namely, that charcoal on paper *can do this*. What is lost in the simple, factual interpretation are all the various material-on-material collisions that are sustaining the tensile state of charcoal-on-paper-as-night sky. It is in these collisions where the play happens.

In *Night Sky #19*, a black stick held in the fingers becomes an expanse. What is commonly and readily applied to make a line is instead, on this occasion, used to form a continuous field. Different surfaces are achieved: smooth where the charcoal has been applied uniformly, and bumpy, either from the paper or from layers of charcoal. It becomes the ground for a spectrum of intensity, from the deepest black to a brilliant, pin-prick white, with an array of greys in between with as many differentiations as can be achieved by adding or erasing layers. Then there are the white dots or circles or specks. I am not sure what to call them. Some are very close to being circular, others less so. Some are pure paper, others contain specks or layers of charcoal. I am struck by how charcoal-on-paper becomes the platform for several hundred unique, delicate acts of erasure.

Because the paper and the rubbing of charcoal allow an expanse to form, there is also the question of what to do with the edge of the drawing. The original photographs are not present in the exhibition or even locatable, so it is not clear what role they might have played in determining the charcoal edges in the drawings. Paintings in the *Night Sky* series, e.g. *Night Sky #17* (2000-01), do not include a border; the paint, signifying sky, continues up to the edge of the canvas³⁹. In principle, it would have been possible to achieve the same to-the-edge effect on paper, possibly even cutting the edge of the paper if its edges from production were too ragged. So it is possible that the white border in the charcoal drawings is not the border of the photograph, and the edge of the charcoal is *simply* the point at which it ceases its representational duties. Although the edge is far from simple. Looking at the edges of *Night Sky #19*, one sees a different kind of transition from dark to light from those used with the stars. With the stars, there is the pin-prick precision of the white dot and the shades of grey carefully contained around them, whereas, with the edges, the fade-to-white is less contained, is more gradual and wavers. The action, removed from the certainty of the star-form, feels uncertain, but this might also be a decision. The difference in approach to the dark–light transition between star and drawing’s edge in effect lets us see side-by-side charcoal-as-night-sky and ... I was going to say «charcoal-as-itself», but it would be more precise to say

³⁸ Plato, *Republic*, trans. D. Lee, London 1987, book 10.

³⁹ V. Celmins, *Night Sky #17*, 2000-01, paint on canvas, *McKee Gallery*, <http://mckeegallery.com/artists/vija-celmins/vija-celmins-new-painting-2001/?pid=773> (accessed 10 April 2015).

«charcoal as it comes to the end of its representational function on a sheet of paper». What would the drawings have looked like if the dark–light transition had been the same for both stars and the drawings’ edges? The edges in the preceding drawing, *Night Sky #18* (1998), are different⁴⁰. *Night Sky #18* is darker than its successor: the black is more solid throughout, and the edge is crisper. However, the edge still fades in a manner that is more gradual than the dark-to-light transitions of the stars, so the difference in approach persists. The fact that we see two approaches to dark-light transition side-by-side – edge and stars, the gradual and the contained or precise – means we get to see charcoal and paper colliding as materials, revealing how they begin to act upon one another (at the edge), and are reminded that the night sky before us is the result of a series of material-upon-material interactions or demands. The drawing in effect lets us see *in the same space* how «metaphoricity of material» point (2) – the meeting of charcoal and paper when it is worked out how they start and finish their representational roles – becomes the ground for «metaphoricity of material» point (4), the manipulation of materials to create particular effects that call for description in terms drawn from associations surrounding the subject.

This, then, is an example of the epistemology of novelty by collision. It’s not the case that we only have two perceptions to choose from: one moment, we are focused on charcoal, the next on the night sky. Rather, any notion that charcoal, paper and night sky are simple, homogeneous objects is exploded through the different effects that are achieved when they are brought to bear upon one another. The problem is that everyday perception in terms of objects, and representational thinking which sees one thing as the representation of another, bundles properties into localized units, that we call objects, and so it is all too easy to resort to perceiving Celmins’s drawings in the two-term form of charcoal depictions of night skies. It will be the job of another paper or book to explore how the tension between belonging and interaction within metaphor theory might become the basis for an ontology and an ethics that can avoid the binaries and isolationism of representational thought.

We must not forget what are arguably the two most prominent metaphors in Celmins’s *Night Sky* drawings: the night sky is charcoal, and charcoal is the night sky. I say «charcoal» in both cases, when, to be more specific, I should say «charcoal-on-paper» or «charcoal-on-paper-rubbed-accumulatively» or ... as is apparent, the metaphorical, collided nature of material means it can never be referred to in isolation. To write «charcoal» is to imply all the interactions and transformations it might undergo in its contact with handlers and surfaces. Also, I think we are free to find two metaphors in the drawings, to allow both terms (night sky and charcoal) to act as primary subjects (in Black’s idiom) or tenors (in Richard’s terminology): (a) because a drawing does not have the strict «A is B» predicative structure of a sentence; and (b) because it would grant representation too strong a role to insist upon the night sky being the primary subject of the

⁴⁰ V. Celmins, *Night Sky #18*, 1998, charcoal on paper, *Tate*, <http://www.tate.org.uk/art/art-works/celmins-night-sky-18-al00178> (accessed 25 March 2015).

drawings, and prevent material from receiving equal attention. Furthermore, on the model of metaphor adopted here from Black, the interaction in the implicative complex created between the two concepts works in both directions; both concepts are affected (something that is not acknowledged in Richard's tenor-vehicle terminology, where metaphor is a one-way process of ascription from vehicle to tenor)⁴¹. Forming two metaphors simply makes explicit the two-way interaction.

Before we begin to look closely at the drawing, there is the question of the appropriateness or inappropriateness of charcoal for the subject matter. Charcoal is the black amorphous form of carbon obtained as a residue when wood or other organic matter is heated in the absence of air. The abundance of carbon as an element in the universe, its importance for the generation of life (as in «carbon-based life»), and the creation of charcoal «in the absence of air» are three strong associations between astronomy and charcoal. As such, they suggest that charcoal is actually entirely appropriate to depicting the night sky, but at the expense of cancelling «the night sky is charcoal» and «charcoal is the night sky» as metaphors, since metaphor requires distance and dissonance between its concepts. But this would be to allow «carbon» and «absence of air» to dominate all that charcoal can be and can mean when, as I have argued, charcoal *as a material* entertains a wide range of forms and manipulations. These ensure that the differences and conceptual associated with metaphor remain.

As I have already suggested, Celmins's slow, accumulative rubbing of the charcoal into the paper and the precise, delicate acts of erasure, bring her to the point where she is working with charcoal as specks of dust, creating senses of the calibrated and the particulate that interact with ideas of the celestial and the astronomical. Let us examine these more closely. The actions of collision and demand performed by metaphor begin as soon as we start to think through what a photograph of the night sky and charcoal on paper become in relation to one another. In this relationship, there is no one, single thing as «a photograph of the night sky» because the photograph is now a series of aspects and possibilities that is going to be extended and transformed by the aspects and possibilities afforded by charcoal on paper. Here «charcoal on paper» exerts a demand upon the photograph on account of the fact that it cannot be the exact same photographic grey. Charcoal and paper will present properties based on their own interactions and the considerations that come from them, for example, the degree to which tone can be varied, the modes by which tone can be varied (stepped by marks and flecks or gradually through rubbing and smearing), and the shapes that emerge when one begins to create a fade from dark to light or vice versa around the stars and at the edges of the drawing. An expanse of dark grey on the photographic paper that denotes empty night sky becomes a region

⁴¹ Ricoeur is less explicit on what happens to the concepts in a metaphor, but the fact that his account rests upon a worldview of things existing in a constant state of potentiality implies he might be open to the idea of all concepts being changed through metaphor. See P. Ricoeur, *Rule of Metaphor*, p. 302, for his statement on the «interplay of attractions and repulsions» within «the universe of discourse».

of dense, accumulated charcoal rubbing, but not so dense that the texture of the paper doesn't show through as extremely fine speckles. This is almost certainly a result of not every dimple in the paper's body receiving the same quantity of charcoal. An area of the night sky that is depicted as empty here becomes a matter of the particulate. And not just particles of charcoal, but also the surface of the paper that we begin to inspect for texture much in the same way that we might scan a photograph of a planet's surface, looking for salient markings.

Then there is the knowledge, from the category «charcoal drawing», that an expanse of dark grey with specks of light that was originally produced mechanically, by telescopic and chemical means, has been created by a substance that has been worked on physically. All the subtle shifts in tone and all the white dots with their various diameters and fade-outs that were created in the photograph causally, as a result of instrument design, process design and chemical sensitivity, are here the result of the articulacy of a substance or, what I have termed here, the «metaphoricity» of a substance, the idea that the nature of a substance inheres not in itself but its capacity to interact with and impact upon others, including human beings. The layering of tones, the layering that either obscures the paper's surface or allows it to remain visible, the subtlety in tone, the capacity for contrast (greater than with graphite), the specks of perfect white, and the various diameters of light-dark transition that surround them: through these interactions, astronomical distance, celestial bodies and the technological transformation of light are extracted from charcoal, paper and eraser. Working with charcoal becomes the construction of scientific, astronomic imaging.

6. The metaphoricity of material as «performative epistemology»

In setting out how metaphors can be found in the collisions and demands created by materials acting upon one another, it could be argued that all I have done is simply identify metaphors. How does this help visual arts research? It does so by showing how material has a fluency or articulacy – which I am calling a «metaphoricity» – that becomes the occasion for new themes or associations, for example (to recall three), (1) a black stick of charcoal held in the fingers becomes an expanse, (2) a drawing lets us see its own conditions of production (as a result of the fade-outs at the edge), and (3) an area of the night sky that is depicted as empty becomes a matter of the particulate. A key feature of the interactionist theory of metaphor is that the interaction generates a novel, middle term – an implication complex, in Black's idiom – that neither of the two terms in isolation could have signified and that is cognitively rich and significant. It is this epistemological dimension that I want to highlight as being available for visual arts research. The novelties in the three examples recounted here that could go on to be the basis of a visual arts research project are: (1) charcoal as an expression of space (in the sense of an area or interval); (2) drawing notation that displays its own logic or condition of production; and (3) how the particulate properties of artistic might address astronomical or scientific

imaging. The themes and questions have arisen from details revealed through the metaphoricity of material, the capacity of material-upon-material interaction to produce effects that, through description, summon concepts not immediately or obviously present and, in so doing, open up new ways of approaching the work at hand. These in turn will inform critical reflection on the artwork, and might suggest new lines of development. The playful suggestiveness of construction was identified by Gauntlett at the outset, but the idea that has been advanced here is that materials themselves possess an articulacy, a metaphoricity, that can generate new meanings and associations.

It is also worth addressing the value judgment implicit in the charge that «*all* I have done is simply identify metaphors». It assumes that metaphor is merely a rhetorical or poetic device, and that no epistemological work has been done in identifying individual instances. This overlooks the epistemological and ontological weight given to metaphor by, among others, Nietzsche, Black, Ricoeur, and Hausman⁴². In summary and at the risk of extreme generalization, metaphor is epistemological because it affects notions of essence and relevance, ideas of what belongs and does not belong to a concept, and the possibility that concepts should not be regarded as 'insides' or 'containers' at all. The benefit of this dimension of metaphor to visual arts research is that, with the metaphoricity of metaphor acknowledged (this would need to be defended in any thesis that took the view, since the concept is still new), the artistic manipulation of material, seeing what it can become and what concepts are introduced in the description of the manipulation, emerges as an exemplary form of metaphor generation and, therefore, movements between ideas that promise to revise or expand what belongs and does not belong to one or more concepts. The present, dominant frameworks for understanding material within the visual arts are as forms of self-expression and as the means to achieve certain kinds of effect. Emphasizing the metaphoricity of material would turn material practice into what could be described as «performative epistemology»: the transformation of material in the interests of revisions to concepts and their boundaries. The problem remains that everyday perception in terms of objects, and representational thinking which sees one thing as the representation of another, bundles properties into localized units, that we call objects, and so artworks are all too easily reduced to objects with properties, rather than being recognized as sites of materially-induced conceptual collision and demand. The shift in perception needed, from representational to relational or ecological, is the topic of further study, and one to which visual arts research might contribute.

⁴²The epistemological and ontological weight given to metaphor by Nietzsche, Black, Ricoeur, and Hausman is discussed in Cazeaux, *Metaphor and Continental Philosophy*, cit.