

**21<sup>ST</sup> CENTURY MAKERS AND MATERIALITIES**

**Proceedings of the 2nd Biennial**

**Research Through Design Conference | RTD 2015**

Norris, J. 2015. Making Polychronic Objects. In: Proceedings of the 2nd Biennial Research Through Design Conference, 25-27 March 2015, Cambridge, UK, Article 7. DOI: [10.6084/m9.figshare.1327941](https://doi.org/10.6084/m9.figshare.1327941).





# Making Polychronic Objects

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**Abstract:** In the light of current debates on the future of making, the Polychronic Object research uses material experimentation to identify possible paradigm shifts. Through making, it maps new media aesthetics, contemporary theories of time and the practical implications of object orientated ontology. The research seeks to understand the implications of a potentially different making space opened up by a triangulation of concepts. Firstly, an aerial cultural viewpoint proposed by new visual theory; secondly, the conceptualisation of time through the act of mapping, crumpling and pleating of material history as an emergence practice; and thirdly, a practical translation of speculative realist approaches to materiality. The knowledge gained from these three

positions aids navigation through the practical experience of making as mapping.

The polychronic bowls, as the material driver of the research, are an ongoing series of small bowls that combine materials from different historical eras. They are hand produced as one off experiments, intended to physically develop the ideas in the research facilitating tactile interaction with real objects.

This enquiry uses research-through-making. It emphasises learning through mapping potential material territories, as a dynamic description rather than a static definition. It offers designer-makers and consumers other possibilities, post mass manufacturing.

**Keywords:** Polychronic; Crumpling; Time; Mapping; Materials; Actants.



# Making Polychronic Objects

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Keywords: polychronic, crumpling, time, mapping, materials, actants

Can an aerial perspective, crumpled time, and material democracy re-frame material choice in objects?



Fig 1: Rubber + nylon + concrete

The term 'polychronic' used in the Making Polychronic Object research describes the range of assemblage strategies (the practice of polychronicity) that incorporate materials from radically different historical eras, resulting in the combination and integration of material time in one polychronic object. This term highlights a deliberate attempt to fold together materials and techniques unlikely to have been

combined in previously linear and hierarchical approaches to materiality. The research proposes a multi-temporal materiality and making strategies such as crumpling and pleating, referencing Michel Serres' use of the term polychronic: 'An object, a circumstance, is thus polychronic, multitemporal, and reveals a time that is gathered together, with multiple pleats' (Serres 1995, p60). The term 'polychronic' was however, first used in anthropology by the cultural theorist Edward Hall in his book *The Silent Language* (1959), where Hall coined the term *polychronic* to describe individuals ability to attend to multiple events simultaneously, as opposed to *monochronic* individuals and cultures that handle events sequentially. The polychronic objects in this research, operating as actants, work to combine a range of material events and multitask the relationships between the different times embedded in their material make up, extending Hall's use of the term polychronic from humans to materials and objects.

The recent resurgence in crafts and traditional techniques still appears to be locked into a negative linear framework, involving 'going back'

to 'rescue' 'disappearing' skills (Scott 2014). This fearful and nostalgic approach is perhaps driven by an anxiety about lost knowledge and uncertainty about future modes of production. Remedial design projects that work with 'past' materials and skills are often in danger of offering only a temporary rehabilitation in the present, and when curiosity and novelty wanes, irrelevance and obsolescence beckons. To address this, the conceptual framework for this research is structured between the fields of three contesting but overlapping fields of theory: visual cultural theory, the philosophical writing on time by Deleuze and Serres, and elements of speculative realism.

Across all of these, there is currently a shared sense of uncertainty at developments in making and what this means for us as consumers. This is fuelling a re-evaluation of 'progress', driving questions on sustainability and consumption. At the heart of this is perhaps an anxiety and disorientation in relation to making, progress and the future. Will our consumption of global resources inevitably lead to our own downfall? Embedded in this anxiety is a reappraisal of the future itself. The visual culture blog by Ross Wolfe: *Memories of The Future* states: 'Today it is well known that the future has become a thing of the past' (Ross 2012). This revision of 'futurism' has gathered momentum in recent years, bringing about a growing critique of the linear conception of time, a model that was associated with Modernism, and which in turn has become linked to the growth of capitalism and the rise of consumerism.

The nineteenth century ideal that the future would automatically bring progress and improvement and the narrative of endless development has lost authority as cheap mass-produced goods fall apart and the wisdom of over-production is questioned, requiring us to re-think this mantra of progress. Meanwhile we have shifted our sense of time to a



Fig 2: Hemp + lime + rubber



new orientation. Amelia Groom, editor of *Time (Documents of Contemporary Art)* observes that: 'the dislocation and non-fixity of networked digital space is both symptom and catalyst of the broken, multifarious time that we find ourselves in.' (Groom 2013, p13) This digital 'dislocation' uncouples us from a linear viewpoint, and shifts us to experiencing an aerial view of time that connects many different times and events laterally.

We experience a growing temporal dizziness as we adjust to this fresh viewpoint. Video artist Hito Steyerl describes this as feeling 'out of joint', and suggests that being out of control of time and its accompanying sense of dizziness are produced by society being in a dream like free fall (Steyerl 2011, p24). James Bridle champion of *The New Aesthetic*, has described the aerial view as the view of our age (Bridle 2012). Our default perspective has become images from Sat Navs, Google maps, drone targets etc, offering us an apparent abundance of reference points within a sea of digital content. However Bridle invites us to 'remember, digital maps are animations on pause' (Bridle 2013). This is a time-based perspective that is disorientating and disturbingly difficult to adjust to.

This radical shift offered by the aerial view opens up the possibility of an ahistorical map of materials that pulls everything into the present. The resulting unfolding of this overview allows every material to become available for use in polychronic objects. This is in contrast to using a reduced palette of materials from a limited historical proximity. For this research, a global map of material development was produced and used as an interactive tool at the Polychronic Objects stand at designjunction 2014 where members of



Fig 3: Linen + shellac + Maki gold



Fig 4: Boiled leather + plastic

the public were invited to crumple up this digital aerial view of material development to produce polychronic making options for themselves. This materials map is in continual development, informed by the material experiments.

The aerial perspective of visual culture overlaps and corresponds with the second driving force in the research, the deeper philosophical constructs and considerations of time developed by Deleuze, Guttari and Serres. Deleuze and Guttari focus on the grouping and naming (codification) that occurs in a process of time as an emergent phenomenon where order arises immanently from within a plane of multiplicity, rather than being imposed conceptually after the event. As Eugene Holland describes in a paper on non-linear historical materialism:

'Emergence is a key concept in non-linear mathematics, complexity theory, and contemporary science: it refers to the spontaneous self-ordering of physical as well as social systems. Order emerges from chaos, without that order being imposed from above or pre-determined from before.' (Holland 2011, p531)

This is encouraging to keep in mind when considering the options for significant shifts in strategies for making objects, as it points to unimaginable change being achieved by small iterations that bring about a critical mass. Louis Althusser coined the term 'becoming-necessary' to characterise this kind of immanent self-ordering (Althusser, 2006, p163–207). The necessity for a change in how we view, relate to, and use materials is increasingly calling out for an immanent self ordering, an ecological 'becoming-necessary' solution, as the second industrial revolution of mass manufacturing wanes. This emergence increasingly happens at a social level, fuelled by the winds of digital media that gather 'springs' across the globe and then disperse. Techniques and materials used in fabrication are however still often locked into twentieth century linear ideas of volume, material hierarchy and progress, and designers find





Fig 5: Scagliola + rubber

it difficult to respond flexibly to shifting patterns.

The inception of the polychronic bowls followed an emergent pattern of development, where the cohesion of a number of theoretical influences and material proximities in the studio resulted in the

sudden emergence of a strategy for making. This process is often difficult to articulate, and it is always tempting to identify patterns retrospectively. However it is crucial to recognise the value of this unstable phenomena. Deleuze and Guttari in *A Thousand Plateaus* highlight the dangers of retrospective normalising inherent in established science, which they suggest tries to narrow down an object's pre-existing conditions to the point where it appears to obey the laws of nature. Their proposal of nomadic science, however, seeks to retain complexity and non-linearity of pre-existing conditions, so that an object's present being is understood as temporary, unstable and is a contingent expression of its becoming (Deleuze et al 1987, p361-374). A significant element of learning in this research has been the importance of resisting an early closing down of processes to secure clear definitions and the temptation to then fit the material experiments into existing patterns and models of making. Whilst this would have prescribed consistent results, it would however have reduced the possibility of accessing new paradigms of making. It does nonetheless leave the research open to criticism from established fields and systems of design.

The making strategies for combining materials in the polychronic bowls attempt to retain a complexity and non-linearity by avoiding set formulae, and early over rationalisation. A number of the strategies have been aleatory in approach such as employing a system of 'perverse partners', which uses dissonance to highlight the strangeness of the material combination. An example of this is wiping setting plastic round the edge of handmade felt (plastic + felt bowl). These two materials, usually kept

apart, contradict a view that their contact is contamination and failure in the object. Another technique centered around 'historical mining', which employed a Murakami-like technique that rolled layered strata of time together and then drilled through them to retrieve a marbled core of options. An example of this might be the concrete+nylon+rubber bowl, where concrete despite being perceived as a twentieth century material, is circa 300 years BCE Italy, combined with nylon (1935 USA) and rubber (pre 15th century Mexico) but used by Europe and America in the nineteenth century and therefore viewed as modern. A third strategy could be described as 'colonial distortions', a similar approach to making as Lloyd Loom furniture that 're-makes' far eastern Rattan furniture with wire and paper. The Linen+Shellac+Maki gold bowl might be an example of this through the translation of Chinese bodiless lacquer ware, made with Urishi lacquer, into linen (5000 BCE Egypt) combined with Shellac (3000 BCE India) and Maki gold powder decoration (16th century China). This distortion retains the lightness but not the durability of the original.

The polychronic bowls were formed by casting from generic plastic bowls. The process of casting is a technique that is perhaps more closely aligned to a Deleuzian sense of mapping than tracing, as the bowls quote the previous shape on the outside, rather than replicate it. Casting from plastic bowls also suggests an iteration, that is a development from plastic mass manufacturing, a different generation.

This approach also repositions the plastic bowls as a valuable tool rather than an end product, having generative value rather than being just a consumable object. This in turn could suggest a more horizontal and democratic relationship between objects, shifting the objects' relations towards being a network of actors.



Fig 6: Paper + shellac

This way of working with materials is an attempt to map through making. The importance here is not tracing pre-existing crafts or objects, or to

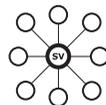




Fig 7: PLA starch + plastic

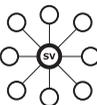
illustrate identified concepts, but trying through material/time experiments in functional objects such as bowls, to discover different making options. As Deleuze and Guttari observe: 'What distinguishes the map from the tracing is that it is entirely oriented toward experimentation in contact with the real.' (Deleuze et al, 2004, p13). It is only through

actually making objects that this contact with the real is made. Deleuze and Guttari's use of the map as a motif re-emphasises the need for an aerial view to democratise the material and object plane, and to spatialise time.

Kevin Clayton, writing in *Time Folded and Crumpled: the Methodology of Michel Serres*, suggests that Deleuze presents a more technical description that explains time as an emergent phenomenon, Serres, whilst agreeing with the description of the emergent process, contrasts traditional forms of knowledge organisation that group elements – viewing them as a unity, with a more experiential approach.

'The former method produces stasis, stable objects and "processes", linear logic, statues; the latter produces fluid and turbulent patterns – patterns, ... that can actualize into any number of different forms in different spatial and temporal locations, patterns that are relational in a topological or non-Euclidian sense rather than relational in a conventional geometrical sense, patterns that are fluid, turbulent, non-linear and very adaptable.' (Clayton 2011 p955 ed Herzogenrath 2012)

The polychronic research seeks, through making, to research patterns in material combination that are relational in this fluid and non-linear sense, and that are adaptable enough to be relevant to personal and localised situations. This approach favours a bricolage strategy



that improvises with what is at hand, and leads to localised emergence. The result of this is a maximised customisation, a flexible relevance that maps against the real. Jane Bennett and William Connolly in *The Crumpled Handkerchief* question

'What initiates the congealing that makes objects? Is it possible to identify phases within formativity, plateaus of differentiation? If so, do the phases/plateaus follow a temporal sequence? Or, does the process of formation inside Becoming take the shape of a non-chronological kind of time?' (Bennett et al 2011, p3419 ed Herzogenrath 2012)

This research would suggest that polychronic making may indeed be the form of non-chronological referred to by Bennett and Connolly. This description of a crumpled handkerchief is used by Serres as a different form of temporal map. He presents a crumpled handkerchief as an image of crumpled time that then produces polychronic objects:

'Time can be schematised by a kind of crumpling, a multiple, foldable diversity... this intuition is clearer than one that imposes a constant distance between moving objects, and it explains more... An object, a circumstance, is thus polychronic, multi-temporal, and reveals a time that is gathered together with multiple pleats.' (Serres 1997, p16)

These pleats of time in polychronic objects offer a map-like aerial view, connecting knowledge and experience of materials, cultural forms, and historical functions from many different times layered and folded into one object.



Fig 9: Felt + plastic



Fig 8: Rubber + nylon

The third reference point in this research is Object Oriented Ontology (OOO) as a facet of speculative realism. Timothy Morton, writing on the promise of OOO, suggests that this is also a difficult perspective to adjust to, observing that: 'We've become so used to hearing "object" in relation to "subject" that it takes some time to acclimatise to a view in which there are only objects, one of which is ourselves' (Morton 2014, p165). Objects from this view are no longer on the end of a long, narrow, evolutionary chain of improvement. As Bruno Latour states in *We Have Never Been Modern*: 'I

may use an electric drill, but I will also use a hammer' (Latour 1993, p166).

We are accustomed to viewing objects in terms of function, cost of materials, or by their semiotic reference to cultural values.

Valuing the combination of different 'material-times' within an object offers a new paradigm for both making and consumption. Time as a reference point significantly shifts our value systems, displacing humans at the center, and shifting to a

crumpled present tense that folds materials and humans into new relational actants. As Levi Bryant, the founder of OOO, states:

'In short, the difference between humans and other objects is not a difference in kind, but a difference in degree. Put differently, all objects translate one another. Translation is not unique to how the mind relates to the world. And as a consequence of this, no object has direct access to any other object.' (Bryant 2011 p26)

The selection of materials for the polychronic bowls is based on a personal contact with and experience of materials during my time of making, and as such reflects the impact of these materials on me and my knowledge of them. The bowls therefore reflect a community of materiality and actants, of which I am one element. With the growing interest in hand making and localised customisation, it is increasingly important to develop a critique of

both the resurgence of craft and mass manufacturing. This is a vital current task for designers and makers. Dunne & Raby, writing on the collapse of Utopian design that explored alternative options for the future, identify 80's neoliberal capitalism as responsible by defining Speculative Design as 'economically inviable and therefore irrelevant' (Dunne & Raby 2013, p8). In our post-financial meltdown, what are the options? Franco 'Bifo' Berardi in *After The Future* observes: 'In the Middle Ages, perfection was placed in the past' (Berardi 2011, p167). Perhaps now Utopia can be constructed from history all around us.

What does it mean to approach making from this aerial view of time? Is this just extending our consumerist thirst for disappearing materials and skills, re-packaging them as the new and the interesting? This research would suggest not: crumpling together materials and techniques from different times, from an informed overview, stabilises the rush for the next trend, and offers localised solutions in post/non mass-manufacturing societies. The same object (perhaps a bowl but indeed any object) can be made from different time combinations in different places, reorienting traditional practices. Argentinian writer Jorge Luis Borges offers an aerial approach: 'Every writer creates his own precursors. His work modifies our conception of the past, as it will modify the future' (Borges 1962, p195). This suggests that making and objects have a dynamic relationship to time, and that material combination has the potential

to rearrange the past and re-construct the future. This perhaps indicates a more fundamental shift in making. By crumpling materials and time, we incorporate the dynamic scope of the aerial view, and withdraw from a linear hierarchy of materials. Crumpling stimulates making, through connecting dynamic temporal possibilities shared between us all as objects.



Fig 10: PLA starch + shellac



Fig 11: Paper + shellac + rubber



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Fig 12: Boiled leather + plastic

Design: Judy McKenzie  
Photography: Paul Hammond

