Abstract

The theorem or concept of topology has been adapted to develop systems of logic that can be applied to a wide range of applications, and results in an approach that encourages a re-interpretation of an artist's practice and ideas. Topology is not a concept that is usually applied to the area of non-objective abstraction and, in the main, individual artists do not approach their work with the theory of topology uppermost in their minds; however looking at work from the perspective of a topological concept can assist in expanding how the works may be addressed.

In this paper I will discuss the practices of seven artists working within the genre of abstraction, in particular non-objective or non-mimetic abstraction, in order to demonstrate how the concept of topology can be considered within this area. It is through an examination of compositional concerns such as fracturing, re-constructing and manipulation, together with the practice of illusionistic distortion of the works surface and the use of light through textual elements, the theory of topology can be considered.

In the conception and execution of their work, some artists subject themselves to seemingly pedantic methodologies as they develop their visual language. They seem to set themselves an almost impossible task, and then go about resolving the problem. These problems can involve concept, colour, materials, and methods, and can be developed to produce surface distortions of both an illusionistic and materialistic order. The results may involve adaptation, skills, the re-appropriating of materials, or surface manipulation. The final result can be thought of as topological in that the altered material remains recognisable, regardless interpretation, manipulation or the visual outcome.

Topologies of Materiality and Process within Abstraction

The term or concept of topology has moved away from purely mathematical and geometric use and has developed systems of adaption that can be applied to a wide range of applications. Topology has proved to be a method of mapping the dynamics of time and space and a way of examining the central notions of the limits of opposites such as interior and exterior expression and controlled distortion. It has evolved into a more open reading of the meditative and process oriented and can relate to a broad range of disciplines.
In 1736, Leonhard Euler's\(^1\) consideration of the conundrum of how to stroll around the seven bridges of eighteenth century Kaliningrad without crossing any bridge twice, (Fig. 1) has developed far beyond the impossible challenge he set himself and has resulted in the brilliant mathematician being acclaimed as the father of topology.

What he succeeded in doing was to prove that the task was unachievable, thus opening thought to the relationship of complex interconnections. John Willats\(^2\) states that topology is often described as "rubber sheet geometry". He explains: "If a figure is printed on a sheet of rubber and that sheet is stretched or twisted, the basic spatial relationships....remain unchanged, although the distance between the marks may change." Willats also refers to the commonly used stylistic map of the London tube in relation to a topological model in that the true distances between stations and relationships of the elements of the journey are stylised into a highly informative and quickly read grid format\(^3\). For Dr Karen Burns\(^4\) topology ‘establishes similarities by investigating the way bodies “remain invariant under all deformations”’, and refers to an “underlying order amongst things that do not have a natural affinity.”

My approach will be that within visual art practice topology can be relevant to the interpreting the very bases of what artists do. It can assist with an engagement with the original concept through to a reading of the manipulation of materials and the various methods and processes, therefore to a more complex consideration of the finished work. In this paper I would like to relate a topological approach to the practice of the genre of abstraction, in particular the form of abstraction that is considered non-mimetic, non-objective or non-figurative abstraction, not the practice of abstracting of an image of a subject. Within this particular approach to abstraction, the removal of physical referencing or imagery almost demands the development of complex processes, together with sustained research into the use of materials and media. I will be restricting my comments to two dimensional wall works, paintings and works on paper, and will be looking particularly at approaches to materials and the development of methods of working.

I will draw upon examples of seven Australian non-objective artists, my seven bridges, and try to map a path much as Euler attempted for his amble. By looking at conceptual means and process, medium processes, self-imposed limitations and the role of discipline within practice; I will draw upon examples of my own work\(^5\) and the work of Justin Andrews\(^6\), Wilma Tobacco\(^7\), Paul Selwood\(^8\), Magda Cebokli\(^9\), Mandy Gunn\(^10\), and Guy Peppin\(^11\).

\(^1\) Euler 1736  
\(^2\) Willats 1997, p70  
\(^3\) Wallats 1997, p34  
\(^4\) Burns 2006 Catalogue essay ACCA  
\(^5\) Kelly website 2014  
\(^6\) Andrews website 2013  
\(^7\) Tobacco website  
\(^8\) Selwood website
When examining the non-objective genre contemporaneously, the range of practice is broad and eclectic; there is no dominant or specific style or school, nor is there any attempt at creating a lineal approach to development. The theorisations of the stylistic shifts that occurred during the developments mid 20C, particularly in America, are irrelevant when interpreting today’s practice. Thus, with a lack of real polemics, artists are not as collectively attached to a single art movement as such and the result is a more fluid approach. Contemporary abstraction has developed a greater complexity and sophistication than seen in earlier movements such as the Support Surfaces group or as evidenced in Greenbergian theory. This is exacerbated by the complexity and range of non-traditional materials such as digital manipulations, print, an improved range of paint, tapes, thread, papers and boards, metal, books etcetera that have become more available for experimentation and development through complex processes.

Artists have the ability to take a material, and manipulate it into something quite different. The material may remain recognisable or not, it can remain in situ or be removed in the process of the making, leaving the evidence of use inherent within the work. This is what I think of as the material concept, or an examination of the physicality of material and relates to the topological interpretation of relationships in that materiality is being mapped or measured and adapted within its use, but retains its original character. The evidence of its use remains and the characteristic of the material of an artist’s choice develops a strong influence on the resulting work. Thus, for the majority of artists who work within the genre of non-objective abstraction, the exploration and the experimentation of material and process is a basic tenet to their practice. It is through the engagement with media/materiality and the development of complex processes to manipulate the material, together with an interest in what that those materials can or can’t do to communicate within the desired concept that the work, that personal visual language evolves.

In 2006 the ironically titled and short lived group Inverted Topology\textsuperscript{12} (Justin Andrews, Anna Finlayson, Matt Hinkley, Kyle Jenkins, Danny Lacy, and Masato Takasaka) collaboratively created installations at ACCA that drew together the disciplines of geometry, materiality and construction. The group created an unfixed installation against the exterior wall of the gallery in a tumbling spatially oriented loose installation using scrounged materials and fast and fluid construction methods. Rather than making an object or vista, the construction aimed to demonstrate a connectedness between the materials. In another project titled Box Project, each of the group de-constructing and re-manipulated a cardboard box, and in an exhibition at Gertrude Contemporary (2005), the group built a “constructed mutation” to “map the quantitative space within the gallery based on the relational materiality of abstraction”\textsuperscript{13}. A member of Inverted

\begin{itemize}
\item \textsuperscript{9} Cebokli website
\item \textsuperscript{10} Gunn website
\item \textsuperscript{11} Peppin website
\item \textsuperscript{12} Inverted Topology 2006
\item \textsuperscript{13} Inverted Topology 2005 Catalogue Gertrude Contemporary
\end{itemize}
Topology group, Justin Andrews, (Fig.2) paints images of jumbled sharp edged shards reminiscent of the re-assembling of something smashed, some what akin to the type of construction methods used by the group.

Wilma Tobacco takes the letters of place names and reduces them to geometric shapes to become “unreadable and unrecognisable as alphabet by being cut into fragments. These fragments are then re-arranged to create a map like composition that plots an impossible path across the canvas. The work becomes a study of physical space and involves the fracturing and the non-realigning of the original. All sections or fragments of the selected word, or in this case place name, are included in the composition; however, in a form of game playing, the word is not discernible, except perhaps where a clue is given in the title (Fig. 3).

Paul Selwood is primarily known as a sculptor, but here I refer to his two dimensional wall work. Selwood’s concern is in the interior and the exterior space within his composition of forms. In the works he playfully manipulates perspective, weight and the tension of gravity. They are flat against the wall, but seem to have volume and gravitas and they form an investigation into manipulated perspective. It is the spaces between the geometric forms that hold similar weight or interest as the seemingly weighty rusty metal shapes. Within a topological model, here we have a study of inclusion and exclusion and a mapping of volume and space. (Fig. 4)

It has been my experience that within approaches towards non-objective abstraction, some artists work within a range of quite rigidly self imposed and sharply defined disciplinary practices. This discipline within a process, which usually involves simultaneous complex actions, augments the material explorations. By presuming upon their practice certain “rules” and controls, artists choose to work within self imposed constraining parameters, setting themselves almost impossible tasks, and then working to painstakingly resolve them within the way they use their chosen of materials. To create further complications, within the new freedom of contemporary abstraction, artists switch or reinvent at will in order to keep the challenges coming for themselves. Thus as one method or problem is conquered, their practice will shift in order to create a fresh set of problems, and they then set about resolving the issues by inventing a new approach, together with a new set of rules or limits. The practice of artists setting themselves a pre-designated criterion within the production of their work is a common practice in the creative process and these problems can involve concept, matter, colour, materials, and methods. As material becomes involved with physical based process, the results can be unique.

An example of this can be seen in Magda Cebokli’s exacting and pedantic acrylic works which are slowly built, layer upon layer (Fig.5). Controlled by a limitation of the pallet, the finish has a smooth perfection. Here the use of masking tape is finessed to an extreme. Working within a series and using the logic of geometry as a concept of mathematical visualisation, these works also address the boundary of the interior and the exterior. The structure of the spatial configurations, together with the tonal movement between light and dark, means that although the spatial field is constant
the impression is one of illusionistic distortion. The result is that a two dimensional space can appear to undulate or physically expand and shrink within its rigid parameter. The works become a study of geometric properties and spatial relationships through the manipulation of tone and the method of using the materials.

I confess to being able to make similar comments about rigidly self imposed and sharply defined disciplinary practices to my own work, although the results for me are more a soft edged geometric abstraction. There are a number of highly processed based methods involved. (Fig. 6) Common thread is used as a mark making tool to create the linear structure to explore the tensions of geometric rhythms within a regular space. This first stage of the process requires a certain systematic discipline and control. Once the line is in place, paint is applied in multiple layers using a number of materials and techniques to create an “almost monochrome” surface. (Fig.7) The thread that makes the line can be removed at any stage, or left in place; however the mark that it makes cannot be removed but remains in an altered state. The works facture enables changes and shifts as the light of the day alters or the viewer moves position, and it is within these shifts that topology can be considered as the surface is not static but changeful, and yet remains spatially unchanged. The ability to further conceptualise comes with the addition of collaged elements such as inert pigments, antiquated printed pages, text or rice papers.

Mandy Gunn, who considers herself an eco-artist, concentrates on found or collected materials which she then re-interprets into wall works. I relate her work to topology because of her ability to reinvent the object in order to create something quite different but which continues to relate to the original. (Fig.8) The finished work refers to the original material used which remains recognisable, but it has now become a different form. It is within the use of the role of the material, together with the process and spatial logic, that I feel that there is a justification the inclusion of her work within a topological discussion.

When I look at the work of artist number seven, Guy Peppin, and consider his processes, I think of the mental ability and process required to play chess. By this I mean each move in the making of the work must be critically considered in light of all the elements on the surface, plus incorporate an awareness of the actions [moves] both in the past development of the work, and where it may go in the future. (Fig.9) Unlike the work of Mandy Gunn whose cut pages are re-constructed into a new form, Peppin shreds or strips the painted canvas and re-assembles it to a form that is close to its original, but in an altered state, incorporating this action as a further expressive element within the work. The striped, heavily worked, impasto surface becomes a painting again, of similar dimension and structure as the original.

From my seven artist ‘bridges’ referenced here, the route is not continuous, nor is it clear. The individual artists do not approach their work with the theory of topology or a topological model uppermost in their minds; however the theory can assist in a reading of how the works may be addressed. Familiar as I am with the works that I have shown today, and I am intrigued with the fresh approach afforded me by looking at them
again through the theories of topology or the application of topological principles. Through the use of manipulation, fracturing and re-construction [Tabacco, Andrews, and Peppin], illusionistic distortion of the surface of the work [Cebokli, and Selwood], or manipulation of textural elements [myself, and Gunn], each artist demonstrates a certain element of their practice that can be related to, or re-interpreted from, topological principles. Each artist has engaged a personally developed mythology for their practice that demands a highly process based discipline and an innovative approach to materiality, both in their subject matter and their choice and use of media. This discipline is developed further through a serial approach and a series of self imposed limits or rules, either used within their concept, or processes, or their choice of materials.

In summation, there are a number of elements to be considered when one approaches a practice or even a genre in the light of the theory of topology. Topological transformations are not a concept usually applied to the area of non-objective abstraction; however looking at work through a topologic philosophy encourages fresh interpretations. Issues of the methods of practice, limitations, processes, approaches, materiality, and uses of media are only part of the equation. It is an evolving theorem, rubbery and ever adapting.

Biographical Statement

Dr Wendy Kelly is a Melbourne based practicing artist, curator and independent scholar. She has an extensive exhibiting history in Australia and overseas in solo exhibitions, curated exhibitions prizes and group shows. She has also curated exhibition, including Non-objective conversations x 4, 2012-2013, which toured to Sydney and Bendigo.

Kelly completed her PhD from Monash University’s Faculty of Art, Design and Architecture, Department of Fine Art in 2010, her research centred on non-objective abstraction and its role contemporaneously. Previous conference presentations have included New questions on Contemporary Art, Mimar Sinan Fine Arts University, Istanbul, Turkey 2012 and 100 Years of Abstraction: Theory and Practice, Jacobs University, Bremen, Germany 2013.
Illustrations

Fig. 1 Leonhard Euler. The Seven Bridges of Kaliningrad 1736. Euler archives http://www.eulerarchive.maa.org accessed April 30 2013

Fig 2 Justin Andrews Abstract painting construction 02 2012 2012 Acrylic paint and collage on board, 55x40cm. Property of the artist. 2012 2012. Image courtesy of Block Projects
Fig. 3. Wilma Tabacco, *Herculaneum* 2010. Acrylic on linen, 2 panels, each 198 x 183 cm. Property of the artist. Image courtesy of the artist and Langford 120.

Fig. 4. Paul Selwood, *We are what we are not*, 2009. Steel, rust and varnish, 242.5 x 490 cm (irregular). Property of the artist. Image courtesy of Charles Nodrum Gallery.
Fig. 5. Magda Cebokli. Square #5 2009. Acrylic on canvas, 101.5 x 101.5 cm. Property of the artist. Image courtesy of the artist.

Fig. 6. Wendy Kelly. It’s a wrap 2013. Mixed technique on canvas, 61 x 61 cm. Property of the artist. Image and photograph courtesy of the artist.
Fig. 7. Wendy Kelly. Work in progress, 2013. Image and photograph courtesy of the artist.

Fig. 8. Mandy Gunn. Australian Story (For the Term of His Natural Life), 2011. Book pages on collaged cardboard construction, shredded woven book pages, dimensions variable. Property of the artist. Image courtesy of the artist. Photograph by Angus Gunn.
Fig. 9. Guy Peppin. Pastoral 2010. Gesso, oil pastel and pencil on canvas, 170 x 125 cm. Property of the artist. Image courtesy of Liverpool Street Gallery

**Bibliography**

**Andrews, 2013** Justin Andrews:


**Lacy, 2006** Danny Lacy: *PLUS Factor*, curated by Danny Lacy ACCA 2006

**Lacy, 2005** Danny Lacy: *Inverted Topology* Catalogue essay on poster, Gertrude Contemporary, 2005


