

Ways of Seeing:

A method of poetic analysis for practice-based researchers in architecture

Suzi Pain

The Royal Danish Academy
spai@kglakademi.dk

Abstract

Poetic analysis, a process by which the act of poesis (of creating) is examined and disclosed has long been adopted by artists, architects and other creative practitioners as a way to reveal the inner logics of creative work to a broader audience. Over the past 30 years practice-based researchers from within the arts have begun to address its potential in order to get the creative aspects of their work recognised in an academic context. The movement faces many challenges due to the difficulties in communicating and validating the 'creative impulse' as a form of knowledge, which is further impeded by the strict formats of academic writing that are generally incompatible with the articulation of artistic ideas or interpretations in a scholarly context.

The aim of this paper is to propose a template for poetic analysis, in the form of a framework or an approach, that can be used to examine and communicate creative impulses as a form of artistic knowledge in academic context. The paper adapts an existing method of poetic analysis from the social sciences and uses a hybrid literary style that shifts between creative and critical genres to give a dynamic illustration of how creative impulses can be mediated and expressed. The method is then applied to a practice-based research project undertaken by the author as a case study in order to test its validity.

The result is a template that sets out a 3 layered technical approach to dissect the creative impulse based on identifying core themes, and then representing them through oscillating creative and critical writing styles. The findings conclude that by shifting 'ways of seeing' through different writing techniques, the intricacies of the creative impulse can be communicated as artistic knowledge. This research is a contribution to evolving formats for conveying artistic knowledge as research in the field of architectural design and is intended for the use of architects and practice-based researchers.

Keywords: poetic analysis, practice-based research, artistic knowledge

Introduction

At the heart of architectural design lies creative practice, yet the role of the imagination in the design process struggles to find space in an academic context. Its absence can be at least partly attributed to the increasing academization of the field of architecture and a lack of its own distinct research tradition. (Kurath 2021, 18) As the field has evolved, contributors have borrowed research formats and methods from neighbouring disciplines including the humanities and engineering, to communicate findings, and these systems essentially fail to recognise artistic impulse as a valuable source of knowledge (Rosenberg 2000). Furthermore, the strict conventions of academic writing and article format tend to

be unsympathetic to the articulation of artistic ideas and creative thought in a scholarly context.

Examination and disclosure of the act of poesis (of creating) understood as 'poetic analysis' in the context of this paper has long been adopted by artists, architects and other creative practitioners as a way to reveal the inner logics of creative work to a broader audience. From Mark Rothko's posthumously published manuscripts, to Peter Zumthor's brilliant and detailed descriptions of how his own experiences inform his practice, there are many literary articulations of poetic analysis in evidence. While it is clear that these texts embody and disseminate knowledge, they fall outside of the academic conventions and frameworks that the field of architecture has adopted to date. In addition, they illuminate an opportunity for practice-based researchers to adopt and customise this form of analysis in a more technical way, and contribute to the evolving academic field of architecture and give the process of poesis better status as a form of knowledge.

In a paper entitled *The poetics of practice-based research writing*, a compelling case is put forward by Rolf Hughes, a writer and scholar trained in the study of literature, for how designers in the field of practice-based research can use different literary and philosophical genres of inquiry as a way to approach the written element of their academic outputs (Hughes 2006, 283-285). Hughes refers to Kenneth Burke's quote that "a way of seeing is also a way of not seeing" as a way to illustrate the potential pitfalls of staying firmly within the conventions of a particular scholarly tradition that dictate seeing the world through a predisposed set of assumptions (Hughes 2006). Hughes suggestion is that by adopting a hybrid literary style for the written aspect of scholarly writing in the context of practice-based research, better conceptual and reflective tools can be forged for researchers within the arts (Hughes 2006, 283).

Artist and academic Terence Rosenberg laments the absence of aesthetic interrogation into creative practice, which he sees as a critical point worthy of having its own research area. He makes a case for developing a technicity to the creative "hunch" in order that it can be validated as a recognised form of artistic knowledge (Rosenberg 2000, 3,5). In the conclusion of the paper entitled *The reservoir: towards a poetic model of research in design*, a call is made to promote and develop the techniques that are sensitive to the poetic aspects of the creative process (Rosenberg 2000, 11).

These valuable statements, and a sense of frustration at the impersonal and narrow perspective of my own academic articles have been the catalyst for this paper that aims to develop a template for 'poetic analysis' for practice-based researchers. By adapting a method of poetic analysis from the social sciences (McKenna-Buchanan 2017) and using a writing style that shifts between creative and critical genres (Hughes, 2006) the intention is to create an academic format that will give a vivid representation of the inner workings of the creative process and contribute to evolving formats for conveying artistic knowledge.

The paper explores the genre of poetics in relation to art and architecture before developing and applying a template for poetic analysis. The template is then applied to a practice-based research project undertaken by the author as a case study. Through reflection on the literary style, the results of the analysis and the template itself, the paper concludes that this approach to studying the creative impulse generates multiple 'ways of seeing' that allow the reader to feel how it is to think in that way and become attuned to similar types of observations in their own environment. When the method is applied in a structured way as this paper demonstrates, it is proposed as a contribution to evolving formats that represent analysis of the process of poesis as knowledge.

Poetics: A method for analysing and conveying creative practice as knowledge

Poetics, in the Aristotelian sense is a systematic enquiry that seeks to reveal the inner logics of a literary work of art. Although the concept has its origins in the analysis of literature, the basic principles have been adopted by the visual and performing arts as a way to describe and examine the creative process.

In the context of this research, I will use 2 contemporary definitions of poetics that support the aim of providing an analytical tool for the creative impulses within a practice-based research project. 'Poetics' is described as "the relationship between a creative work and its critical inputs and outcomes" (Lasky 2013) which opens the term up to all types of creative gesture beyond field of literature and frames well the creative impulse that can be traced through critical input and outcome. In a definition more aligned to what it *does* rather than what it *is* I will employ 'poetic analysis' as a recognised research method from the social sciences where it is described as "an aesthetic and creative representation of qualitative data" and "a method that creatively constructs data into expressive and artful representations"(McKenna-Buchanan 2017, 1261). This method forms the basis for the template of poetic analysis for this paper that will be further explored in the methodology section.

Poetics in practice

Beyond the relatively small world of poetic analysis in an academic context, there is a tradition for architectural practitioners and artists to use statements of poetics to create vivid expressions of their work that go beyond the purely physical experience of their work. Such statements invite the reader into the mind of the artist/architect in order to trace the journey of an idea to its manifestation in the built form. In *Thinking Architecture*, Peter Zumthor describes his influences and how they inform his practice as an architect in a discursive text that shifts across several literary genres. In some parts, the text reads almost as a manifesto and in others, elements are anecdotal or written as a narrative.

Two weeks ago I happened to hear a radio program on the American poet William Carlos Williams. The program was entitled The Hard Core of Beauty. This phrase caught my attention. I like the idea that beauty has a hard core, and when I think of architecture this association of beauty and a hard core has a certain familiarity.
(Zumthor 2006)

There are also many quite technical and analytical descriptions which are closer to a scientific style of writing woven throughout the text when it is applicable to make a specific point. Zumthor switches literary style to suit the element he is exploring through words, and it is through this evolving text he artfully unfolds what it feels like to think in that particular way. There is a transformative effect that takes place as the descriptions take the reader to a place beyond the works written on the page, and hence the poetic statement is received.

London based architects Patrick and Claudia Lynch reveal the creative process in their monograph *Mimeses*²⁷ through poignant recollections of personal experiences that are synthesised with descriptions of the practice's philosophical influences²⁸ and architectural references. Like Zumthor's text, the literary style

²⁷ Mimesis is the subject of Aristotle's 'Poetics' with a wide range of meanings including imitation and the act of expression. The introduction of *Mimesis* (2015) expands several more detailed interpretations of the term in relation to the work of the practice.

²⁸ Patrick Lynch describes how Georg Hans Gadamer's term "festive calm" reflects a latent theatricality that he has observed as a recurring theme in several of their projects. p.89-91 He also recalls Dalibor Vesely's description of mimeses in relation to decorum and how these definitions are in tension through the directed nature of architectural work. p.207-208

shifts to suit the particular idea being expressed and the juxtaposition of the words alongside images and sketches constitute the poetic statement, and the reader is invited to 'come to know' the imagination, principles and convictions of the architect and the process of poesis. The work engages with the complex and often-emotional aspects of creative work, alongside more scholarly aspects of the architect's practice.

In Vienna last summer, one of us for the first time, but it felt like we'd been there together many times before Like a lot of capital cities, it is like walking around in a film made up of memories almost entirely culled from books and films. It is an odd sensation, like being in a museum of architecture, or one's subconscious gallery of memory images.
(Lynch 2016)

Mark Rothko's posthumously published manuscripts *The Artist's Reality: Philosophies of Art* explore and explicate the deep inner workings of the artist's thoughts and can also be viewed as a statement of poetics. Rothko's philosophical, mystical and historical musings, written towards the end of his career communicate artistic knowledge to a greater audience by inviting the reader into the artist's internal discourse. Through this work Rothko invites the reader to join conversation, have a point of view or merely see the world through his eyes for a fleeting moment. Artistic knowledge is disseminated, while greater self-knowledge occurs for the artist through analysis of the creative process itself.

Poetics in research context

How we might validate artistic work as research and create recognised formats for artistic knowledge have been hotly debated topics over the last 30 following the trajectory of academisation of the arts (De Walsche 2021). While methodologies for research in art and design are still under great development, there is an apparent blind spot in place where we explore the impulses at the core of our artistic practice (Rosenberg 2000) and the reason for this is manifold.

Architecture has traditionally been perceived as a form of practice as opposed to an academic subject with its own research culture (Kurath 2021, 18) and due to the cross disciplinary nature of architecture and its relative immaturity as an academic field, contributors tend to borrow research formats from existing disciplines in order to communicate knowledge. The recognised academic method of Research through Design, used to extract and communicate knowledge from the design process through 'reflection in action' (Frayling 1993) is in many instances deplored by active practitioners as disconnected from the practice of architecture that needs to be rooted in real life context to be relevant (Silberberger 2021, 4-7). The reports generated from this type of research tend to resemble humanities papers and while they do go some way in representing creative practice as knowledge, they rarely dissect the creative impulse in the same way as the aforementioned statements of poetics do. The apportioning of different aspects of architectural research into borrowed formats on one hand allows for specific focus and rigorous interrogation in certain areas, but on the other has ignored what Rosenberg describes as the 'hunch' and the role of intuition in the design process.

The imaginative hunch becomes merely a point on the horizon of practice whereas rigorous methodology is considered a trajectory and thus a process.
(Rosenberg 2000)

Rolf Hughes uses Kenneth Burkes statement that, "A way of seeing is also a way of not seeing" as a cornerstone of his argument that scholars need to re-examine the relationship between the modes of expression used to communicate their academic outputs (Hughes 2006, 283) and makes a compelling case for how

designers in the field of practice-based research can use different literary and philosophical genres of inquiry as a way to approach the written element of their academic outputs. Hughes makes the case that by using a range of literary genres to communicate their written work, artistic researchers are no longer bound by conventions of a particular research discourse and are free to shift writing style between 'creative' and 'critical' depending on the requirements of communicating a particular piece of information about the creative process. (Hughes 2006)

These observations illustrate how research cultures in the field of architecture and design have excluded the creative impulse from a place in academic research while poetic statements generated by practitioners outside of academic protocol successfully communicate artistic knowledge. They also point to the potential for a form of poetic analysis and creative use of literary style, to subject the creative 'hunch' to rigorous investigation and to develop evolving formats that represent analysis of the process of poesis as knowledge.

Methodology

There are 3 methods used in this paper in order to develop and test the template for poetic analysis. The approach to developing the analysis template itself is based on a method for poetic analysis from the social sciences (McKenna-Buchanan 2017, 1261-1264) and an approach to developing the analytical writing style is based on a method of using hybrid text suggested for practice-based researchers (Hughes 2006, 283-301). The final method used in the paper is a case study where a practice-based research project (by the author) is used to test the proposed poetic analysis template.

The method for poetic analysis that is adapted for this research is taken from the field of communication studies and is selected for its explicit descriptions of how to view the research material as raw 'data' that can be analysed and creatively reconstructed into an artful and expressive representation of the work with poetic sensibilities (McKenna-Buchanan 2017, 1261). Although designed for the interrogation of primarily text based and oral material, it is possible to make changes to allow for its use in the case of physical objects as is required in this study. The description draws on the term 'thematic analysis' which allows the researcher to pick out relevant themes within the data and magnify specific elements that are hidden or obscured within the work or its conception (McKenna-Buchanan 2017, 1261,1264). It describes the art of poetic analysis as the "ability to magnify dimensions that are hidden, while remaining succinct." And "the ability to create a vivid expression beyond what is on the page and capture the spirit of a particular moment or phenomenon." It demands the output is transformative in the sense that the text transforms the data into new meaning and allow the data to be viewed in a new light (McKenna-Buchanan 2017, 1262-1263). In terms of scholarly contribution, the difficulties are acknowledged with this method of extracting knowledge in that it is difficult to validate, but states that peers will need to ascertain whether a meaningful contribution to the topic under discussion is achieved (McKenna-Buchanan 2017, 1263).

For the sake of clarity, the adapted method is made clear at the start of each section of analysis in the next stage of the paper.

Description of the case study project

This section presents the practice-based research project that will be used as a case study to test the poetic analysis. It has made sense to use one of my own projects for this research due to the very personal nature of the creative impulse



Prototype for a 3D printed ceramic cladding system as a practice-based research project design to consider the application of clay as a protective and decorative cladding material for structural steel

that is under investigation, and the fact that I am currently engaged in a practice-based PhD doctoral study.

The brief for the practice-based research project was to design and fabricate a 3D printed ceramic tile system to consider the application of clay as a cladding and decorative material for structural steel. Undertaken over the course of 4 months and culminating in a 1:1 scale prototype, the project was characterised by a Research through Design approach where insights were recorded during and after the process and formulated as a methodological paper for ICSEA 2022.²⁹

Textile Column is 2.2 meters in height and made up of 15 interlocking 3D printed clay tiles that act as a cladding system to a structural steel column (Figure 1). The column is dark grey in colour using a stoneware clay that resembling iron when high fired and its outer layer has a surface pattern that resembles woven textile (Figure 2). This effect is generated by how the print path extrudes the soft clay and how the layers of material interact with each other. The overall expression of the column is a twisted geometry that is tighter at the bottom and releases into a flare at the top.

There are many formal expressions within the column worthy of interrogation. Why is the dark clay used? Why does it twist like that? Why would it be relevant to work with a textile expression? These questions could be answered by a series of relatively straightforward statements, but statements like these would fail to describe the inner workings and artistic dialogue behind each critical decision. It is for the poetic analysis to delve into these curiosities and interrogate them with academic rigor.



Figure 2. Woven textile expression on the surface of the tiles. This effect is generated by how the print path extrudes the soft clay and how the layers of material interact with each other.

²⁹ The paper written about this practice-based research project is currently in the peer review process but there is minimal crossover with what is discussed in this paper as it was principally a methodological contribution. This paper highlights what the other failed to capture which is the role of the imagination and creative impulse in the project.

The Poetic Analysis

The following sections will apply the adapted template for poetic analysis to the case study project Textile Column. Based on McKenna- Buchanan's method for poetic analysis, the first stage of the process is to assess the 'data' for its most compelling parts before reconstructing it with poetic sensibilities. In the new template for poetic analysis, the 'data' is considered all the material that constitutes the design and fabrication process and what I am looking for is emergent themes in the material that are related to the creative impulses that drove the project.

The data reassessed: emergent themes

In order to assess the critical inputs and outputs of the project, all materials considered part of the process are assembled for analysis, including the final column, formal and informal photographs of the column, drawings, notes, sketches and logbook. All of the critical themes and observations are written down as single words or short remarks in a non-hierarchical way in order to be able to rationalise the 'data' into one medium as a record of all the small pieces of information that went into and come out of the prototype.

The remarks are somewhat crude in some instances – *“geometry drawn in computer” “accessibility of the script” “chat with Mikael about industrial requirements”* and in others much more enigmatic *“coming into being” “Blossfeldt and ossification” “Bechers and formalism”*

The flat structure of this process, and by not allowing hierarchies within the words as they are drafted, allows me to assess the data without a preconceived notion of what is important. It allows me to contemplate relationships between different themes and ideas and consider which aspects have been explicit, implicit or possibly hidden in the process. The primary aim is to identify the places within the process that intuitive leaps have taken place or where the imagination has fused ideas, references and pragmatic considerations.

A series of themes emerge through analysis of the data, and I have identified 2 core creative impulses within the project. Textile: weaving and cross disciplinary thinking, and The Twist: form, materiality and making. These themes are all somewhat visible in the formal language of the column yet when I begin to interrogate the logical thought processes behind any of them, the reasoning is complex, nuanced and not necessarily rational. I have chosen to articulate the poetic analysis around them, as they are visible, concrete aspects of the design that have that can be traced back to a series of creative impulses.

Poetic Reconstruction

The following section dissects the themes based on McKenna-Buchanan's method where the data is (re)organized in a unique way to uncover the nuanced and/or hidden problematics that do not come to fruition in other forms of data analysis (McKenna-Buchanan, 2017). Where the new template differs from the aforementioned method is that the key themes are further interrogated and developed into short texts that illustrate the different aspects of the thought processes.

It is here that different literary styles shifting between creative and critical genres (Hughes, 2006) are employed with the intention of artfully communicating creative impulses and the intuitive process.

Textile: weaving and cross disciplinary thinking

What could it mean to design 3D printed clay tiles that act as decorative and cladding elements for structural steel in contemporary architectural context? I am

curious to follow textile references from Semper's 'Bekleidung' theory in terms of expression and principle, what could this mean to reimagine these ideas in 3D printed clay?

Anyone who has worked with 3D printing using a paste-based material such as clay or concrete will have likely made a visual or technical association to the production of knitted or woven textiles. The material is extruded from the machine in a continuous thread and the way the print path is drawn will inform how the subsequent layers of material will sit on and interact each other. The action is similar to knitting, although the bonding happens through the viscosity of the material rather than knots, but the visual effect is similar. I make a connection between these mechanics of production and the idea that I am essentially 'dressing' the steel column with a woven clay skin, and I wondered if the knitting aspect of the fabrication can be extended to the joints and might inform how they are designed.

The weaving effect happens where one layer of the material meets another forming a bond. But what happens if I consider other characteristics or material behaviours from textiles and garments – a seam, wrapping or binding, clothing, dressing. I design pieces that interlock in a horizontal and vertical plane using a wrapping notion that exploit the precision that the 3D printer allows. I can see that there are now 3 quite separate textile notions at work here in the pieces. The seam – the visible vertical join between interlocking elements, the fold – the semi visible join where elements wrap around each other to lock in place and the knot – the places where 2 layers of the material meet and fuse together (Figure 3).



Figure 3. Seams, fold and knots. The connections at the scale of material junction up to the scale of how the pieces interlock are all based on textile conventions translated into 3D printed clay

In the essay *Tailoring Second Skins* (Weinthal 2016, 49-50) Louis Weinthal discusses how the knowledge embedded in particular craft disciplines can be used to gain a greater elemental understanding of how materials will behave under similar conditions in different contexts. She describes the physics of working with a bias cut in dressmaking and sail making from the material scientist's perspective where the traditional boundaries between disciplines are dissolved. Although too much of a stretch to claim a scientist's approach to looking at the clay as textile, reading Weinthal's text I am aware I approach the project through a constantly shifting lenses. The clay pieces shift from being

micro-masonry, to knitted fabric, to a linen sheet to fluid steel over the course of an afternoon often depending on what scale and how I am looking at it and what particular problem I am trying to solve. Attributes like stickiness, tension, gravity and viscosity are always at play that are more about elemental material properties than the strict material divisions of the traditional crafts.

I wanted to 'clad' the column. Cladding of course has textile connotations but dressing feels like a more appropriate description of what is happening here. What is nice about dressing is it opens up to more metaphors about revealing and concealing. About layers and embellishment, ornament and expression and how these might be manifested in clay.

Semper's notions of 'Bekleidung' and the idea that the expression of walls (enclosure) bears the traces of their textile origins are both at play in my design thinking. I take quite literally the approach to 'dress' the column in the clay and play with the metaphors of seams, knots and folds and turn them into construction details in the tiles. I am also inspired by Moravánszky's observation of the crucial importance of the surface layer of architecture that he describes as "a texture produced by human intelligence and work, which gives pleasure to both the eyes and the hand" (Moravánszky, 2017).

The Twist: form, materiality and making

What happens if I design the column, so it twists? And by that I mean design the outer layer of the column so it twists and spirals around itself in a similar fashion to the fancy twisted wrought iron gates and balustrading synonymous with Regency London. What does the twisting mean in the context of a 3D printed clay column? Is this simply a direct transformation of one material idea into another?

The desire to twist the column is a critical input in the creative process, as both theoretical and self-biographical thought are deeply embedded within this formal gesture.

I wanted to mimic the twisting nature of the ironwork in the 3D printed ceramic elements, and the idea about a transformation of one material gesture to another is tied in Semper's theory of 'Stoffwechsel' or material metamorphosis. Rather than using Semper's theory as a way to interpret the architectural detail, I use it as an active catalyst to consciously translate the formal qualities of the twisted metal across to the ceramic column with a vague hypothesis that this material transposition might actually hold structural insight beyond the merely superficial. While there is an indication that there is a theoretical and somewhat practical aspect to this move, I know that the desire to make the material perform in this way is connected to more personal artistic inclinations.

I can remember my first internship when I was 21 at Capricorn Ironworks in Hammersmith where I learned that twisting the metal rods was one of the core skills of blacksmithing. The novice could really be separated from the master by how one performed these decorative twists and I looked on with almost a sense of desperation to get my hands on the material as the smiths worked the metal rods into the desired forms. It was fascinating to watch the metal in its white hot, almost liquid state and how it responded to the hammer and the wrench. As it cooled you could physically see the resistance in the material as it became harder to work, before stiffening and finding its final form. I enjoyed the material contradiction of something so cold and rigid bearing the visual traces of the materials once animated and fluid quality.

When I remember the fascination with the frozen animation of the forged iron, I think about the bespoke and irregular geometry of these pieces. One of the key



The material paradox starts to become apparent as the clay starts to mimic forged iron. When fired up to a high temperature the finish is much blacker than that in this image.

aspects of digital fabrication is that ornamentation and non-standard geometry (the arch enemies of mass-produced moulded elements) are suddenly possible without any additional labour or material. In the context of the design of the 3D printed ceramic elements for the column, I want to express the qualities of this fabrication technique and make explicit that this piece could not have been made in a traditional industrial mould. One way to do this is to design a column that twists in a bespoke fashion like the hand worked iron. By twisting the column, and working with an irregular spiral that is tight at one end and that gradually releases towards the top, the non-uniform geometry will illustrate the bespoke nature of all the elements.

As the first twisted pieces come off the machine I can see there is a structural advantage in the way the interlocking elements will support each other like twin formworks in the printing process as they spiral. I can read a material ambiguity – the black clay reminds me of iron and there is a certain tension in the helixial qualities of the forms. I can also start to see how there is a paradox between the clay imitating steel but acting as cladding (Figure 4). I am not entirely sure this was what I was trying to achieve before I did it, I know now that I want to try and exploit these qualities.

These types of qualities can also be found in the photographs of Karl Blossfeldt, a 19th century German photographer who photographed flora and fauna. The sombre black and white images are ambiguous, frozen, cold and paradoxical, focusing on the artistic and formal qualities of the subjects (Figure 5). This formalist approach to the photographing a subject is also visible in the typological studies of Bernd and Hilla Becher (Figure 6) and I am aware of a common theme between these sculptural forms and ideas and what I am also trying to achieve in terms of expression.

I remember looking at Blossfeldt's images and being deeply touched by how beautiful they were. Phenomena that you know and understand, but reconstructed in a different manner. The sense of something frozen that was once fluid and in a state of metamorphosis from one state to the next. The images capture that energy while simultaneously presenting a petrified and rigid object.



Figure 5. *Cajophora Lateritia*, (Loasaceae), Plate from 'Urformen der Kunst', Karl Blossfeldt 1929



Figure 6. Plate from 'Water Towers', Bernd and Hilla Becher 1988

Meta-themes emerge: Ambiguity and material paradox, ornament as vehicle

The literary exploration of these creative hunches exposes several meta-themes within the work. These are themes that are not immediately obvious as direct creative inputs or outputs of the project but are revealed through poetic analysis. This revelation is characteristic of how poetic analysis can contrast with other forms of data analysis in that it may magnify hidden or silenced dimensions within a larger narrative (McKenna-Buchanan 2017). This section is a short discourse that describes the meta themes in the context of contemporary practice and theory as a further layer of analysis and the final layer of the proposed template. In this last piece of text that constitutes the poetic analysis, the literary style evolves into a more impersonal and formal tone more akin to traditional academic writing.

Ambiguity and material paradox

The creative impulses reveal a search for a sense of ambiguity, or a type of material paradox within the expression of the work. The viewer might be slightly curious as to what they are encountering as the twisted column plays on elements of the known and the unknown. What is this material? Does it feel like I expect it to feel? How is it made? Is it structural or simply decorative? There is simultaneously sense of familiarity but also one of unfamiliarity. There is a continuous, paradoxical narrative of materials and their elemental behaviours and traits being imitated and transposed across to other materials and construction systems.

These aberrations are on one hand personal artistic curiosities, but on the other can be interpreted from within the field of architecture an attempt at evolving a type of architectural expression directly informed by the works of Louis Sullivan's terracotta clad skyscrapers, Frank Lloyd Wright's Textile Block Houses and works from contemporary practitioners like Gramazio Kohler and Benjamin Dillenburger.

These are ideas that move between the explicit and the mimetic as a way of describing the materials, building technologies and artistic movements that are of a particular time. The column that is simultaneously textile, clay and steel is a material and tectonic paradox that attempts to reflect evolving material, digital and architectural cultures. It is a move away from convention and 'type' towards a more ambiguous status that attempts to blur material boundaries rather than define them.

Ornament as vehicle

The expression of the column is a critical comment on a modernist approach of honest construction where raw materials are exposed, and the traces of their assemblage are visible and celebrated. In this case of this work these doctrines are honoured and the work speaks of its construction, but it goes a step further by daring to decorate and adorn with seams, knots and folds while never crossing into the realm of the superfluous or the gratuitous. Form does not follow function in this case but follows a much more complex formula of ideas which sits closer to the domain of ornamentation where the language and the meaning begin to drive what the actual architecture is.

The approach points to a revived interest in ornamentation being a conceptual cornerstone of an architectural idea rather than just a superfluous addition and is reflected in the term 'material driven ornamentation' (Anton *et al.* 2021, 5) where it is described as a procedural design technique or a procedural ornament that capitalises on the dripping behaviour of the concrete in the design of a series of 3D printed concrete columns.

The clay printed column is a companion to this way of thinking albeit in a less technical fashion where the material in the fabrication process is observed for its ornamental and expressive qualities and then recomposed using metaphors from textile and garment production. The most explicit of this being the wrapping action of the pieces as they interlock that capitalise on the precision of the print path and the viscosity of the material, and the translation of this junction into an ornamental seam. What these examples are both evidence of is a repositioning of the ornament at the centre of a design process as opposed to the broad rejection of the ornament through the modernist era.

Discussion

The main goal of this research was to propose a template for poetic analysis that could be used by experimental practitioners in the field of architecture to be able to examine and communicate their critical and creative impulses as a form of artistic knowledge. In the previous section, a three layered approach has been presented based on an adapted method for poetic analysis (McKenna-Buchanan, 2017) and using a writing style that shifts between creative and critical genres (Hughes, 2006). The first part is a 'data assessment' where the critical inputs and outputs of the design process are rationalised into words and short statements and then organised into themes that represent the core creative impulses in the project. The second is a 'poetic reconstruction' of two of the core themes characterised by a shifting literary style that aims to illustrate the creative process through vivid descriptions of memories and ideas alongside representations of more logical and pragmatic thought, and the third is a more formal and academic description of the 'meta-themes' discovered through the process. I will now discuss how the literary devices and the proposed structure for poetic analysis produce artistic knowledge and create a more nuanced understanding of the creative impulse.

In the second layer of analysis, the 'poetic reconstruction', 2 themes are reconstructed into separate dialogues; 'Textile: weaving and cross disciplinary thinking' and 'The Twist: form, materiality and making'. The 2 themes and the reflections within them are structured into literary representations of the trajectory each creative impulse, which are often complex, contradictory, evolving and manifold and are anchored by the central line of thought that runs through each. What this system does is produce a format for developing a 'technicality of the hunch' (Rosenberg 2000, 5) or illustrates that it is possible to assign a technical quality to a creative impulse when it is structured and expressed in this way. The central themes allow the creative impulse to remain in focus while a discursive dialogue is explored through different literary styles that are chosen to best represent the creative thought and how it is manifested.

The structure allows space for the more emotional aspects of creative impulse to be described where a particular event is recalled in the first person and recounted using sensory language. These descriptions are designed to communicate aesthetic knowledge and "to create a vivid representation that moves the reader beyond the words on the page" (McKenna-Buchanan 2017, 1262). Such a literary device is used in this paper in the authors description of the experience in the ironworks as a young intern. Through the description, it is intended that the reader can understand how it feels to think in that particular way and is then attuned to similar observations in his or her environment going forward (Hughes 2006, 290). Aesthetic knowledge is communicated through these types of descriptions and it is these 'ways of seeing' juxtaposed alongside more logical or theoretical academic perspectives, that the intricacies of the creative impulse are communicated. The structure makes the space for the creative impulse to move beyond being merely a "point on the horizon of practice"(Rosenberg 2000, 2) to developing a technique to examine it using literary styles that are seldom used in research contexts.

The greater structure, that splits the process into 3 layers, reveals how a poetic analysis allows creative impulses to be explored and slowly brought into focus. The format is representative of the creative process itself, which is a gradual, albeit not usually linear process from design problem through to a solution, and ultimately a broader contextual and theoretical positioning. In the final layer, where meta-themes are explored through a more traditional academic and formal tone, the reader is invited into a critical discussion through the placement outcomes of the ideas within project against contemporary and historic theoretical and practice-based positions. This layer can of course be judged on the content of the discourse, but perhaps more appropriate to the nature of this paper it should be viewed from the perspective that without undertaking the previous unravelling of the inner workings of the artistic process, it is unlikely it would have been reached in this form. What this suggests is that one of the consequences of poetic analysis is that it is not only a disclosure of knowledge to the reader; it is also a generator of self-knowledge to the practitioner him or herself.

At its outset this paper introduced the poetic statements of Zumthor, Rothko and Lynch as examples of how these valuable sources of artistic knowledge lie on the periphery of what is considered to be research. This paper has attempted to develop technical approach to analysing the creative impulse that still allows for a richness of poetic reconstruction through the expansive literary genres that are underused in academic and scholarly writing.

Conclusion

As architects and scholars continue to define a research tradition from within the field and develop appropriate methods to generate knowledge, it is crucial that they do not overlook some the core elements that lie at the heart of their practice. This paper has attempted develop a template for poetic analysis that can be used by architects and practice-based researchers as a way to validate their creative practice as a form of artistic knowledge.

A three-layered template has been formulated through an adaptation of an existing method of poetic analysis in tandem with a hybrid literary style. The approach has been adopted to suit the conditions of an experimental architectural project and has been tested as a case study on one of the authors practice-based research projects.

The findings conclude that by shifting 'ways of seeing' through different writing techniques, the intricacies of the creative impulse can be expressed from different perspectives. A creative style of writing allows the reader to feel what it is like to think in a particular way and as a result of this will be greater attuned to notice similar aspects of their own environment. The juxtaposition of creative and logical thought allow the reader to understand the moments where ideas are fused and conceptual leaps happen. Where this type of text is a disclosure of knowledge to the reader; it is also a generator of self-knowledge to the practitioner him or herself.

The template illustrates that poetic analysis can be used in practice-based research as an analytical tool. It enables valid contributions to a base of artistic knowledge and means that the role of creativity and intuition in architectural practice can be situated within an academic discussion.

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